Name _____**Sec** _____**Roll No.**_____

<div align="right">**CODE: A**</div>

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BURNPUR RIVERSIDE SCHOOL, BURNPUR
HALF YEARLY EXAMINATION : [2025-26]
ENGLISH CORE
CLASS – XII

</div>

Time: 3 Hours   **Maximum Marks: 80**

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GENERAL INSTRUCTIONS:

Read the following instructions very carefully and strictly follow them :

  i.   *This question paper has 13 questions. All questions are compulsory.*

  ii. *This question paper contains **three sections** Section A: **Reading Skills,** Section B: **Creative Writing Skills** and Section C: **Literature.***

 iii. *Attempt all questions based on specific instructions for each part. Write the correct question number and part thereof in your answer sheet.*

  iv. *Separate instructions are given with each question/part, wherever necessary.*

  v.   *Adhere to the prescribed word limit while answering the questions.*

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SECTION A : READING SKILLS (22 marks)

1. **Read the following passage carefully.** 12

1. Marketing is all about creativity and expression, so it must be an art, right? Not necessarily. While marketers once relied purely on instinct, they now rely on data-driven insights. On top of that, cutting-edge technologies and analytics have shifted the focus of marketing farther toward the science side of the spectrum. Armed with so much data, marketers can now track the impact of money spent on their bottom line.

2. In today's world, the best approach to marketing combines both disciplines. And there's a distinct balance to the craft; a strategic mix of interpersonal empathy and tactical analysis. Neither side of the mix can be isolated nor ignored, nor will the results not be encouraging. Psychologists believe the brain is separated into two distinct functions: the left-brain and the right-brain. The right side of the brain is responsible for creative thinking and artistic intuition.

3. As an art, marketing is all about understanding the nuances of human behaviour and determining how to make an emotional connection with the customer. More importantly, some level of art is needed to create brand standards for your company, including the logo, messaging and overall visual identity for a brand.

4. Right-brained marketers focus on the creative aspect and

emotions tied to the message. The science-side of marketing tells us to let the data guide what strategies will be most effective. Marketers are now reporting the need for digital-first expertise including digital proficiency, data analysis and data science. With science, marketers adopt an outcome-centric mindset that helps them curate smarter campaigns. Over the past few years, there has been an evolving prioritization on data-savvy talent. In 2020 and beyond, brands will need to focus on recruiting talent that can understand the complexities of AI and machine technologies.

5. But when we reflect on earlier times, marketing was defined as the predominance of traditional advertising, like television, newspaper, and direct mail. Today, it ropes in digital channels, social media, mobile devices and integrated, complex campaigns. And just as consumers today are more tech-savvy, employees should be able to match and exceed their expertise. It's important that brands continue to prioritize creative, engaging campaign messages while also focusing on key insights and performance metrics for optimal results.

Answer the following questions, based on the above passage.

(i)   **Choose ONE of the following statements that aptly reflects the point of view of the writer.**   1

    A) In the field of marketing, there is a conflict between Art and Science.

    B) Art and Science should work in tandem to do effective marketing.

(ii)   According to *Paragraph 1*, how does the author describe the evolution of marketing?   1

    A) Marketing advanced as an art being it all about creativity and expression.

    B) Marketing grew from marketers' reliance on instincts to data-driven insights.

    C) Marketing advanced with marketers beginning to track the impact of money spent.

    D) All of the above.

(iii) **Complete the analogy with ONE word from Paragraph 2:**   1

    included: incorporated:: _____ : secluded

        A) approach

        B) empathy

        C) isolated

        D) intuition

(iv)   *"Marketing is all about understanding the nuances of human*   1
        behaviour." (Para 8)

        The writer uses the word 'nuances' to denote

            A)   man's appreciation for art.

            B)   man's preference for branded clothes.

            C)   the complexities of human character.

            D)   human inclination for analytical approach.

(v)   *"...cutting-edge technologies and analytics have shifted the*   1
        focus of marketing." (Para 1). By *'cutting edge technologies'*,
        the writer refers to _____.

(vi)   Provide ONE textual evidence with reference to Paragraph 3   1
        to support that *marketing is an art.*

(vii)   With reference to Paragraph 5, what skills do you think the   1
        employees should possess to match the demand of the
        consumers?

(viii) What fascinating fact about the human brain is revealed by   1
        the writer in the above passage?

(ix)   **Complete the following based on your understanding of**   2
        the above passage:

        According to the writer, modern marketing is built on both
        _____ and _____.

(x)   Based on the passage, assess the way data and digital   2
        platforms have transformed the field of marketing and
        employment.

2. **Read the following passage carefully.** 10

1. ChatGPT has been gaining attention for how closely it mimics human-like responses. Created by OpenAI in 2022, it is a chatbot that has been trained to have knowledge of worldly events and phenomena up till September 2021 and to interpret the context of texts to produce meaningful responses. The tool can provide answers on many topics and often states disclaimers if it cannot answer a prompt accurately. Unlike a search engine, it cannot browse the internet for information. It also does not collect any personal information of users.

2. A survey was administered to understand the uses of ChatGPT in the fields of education, healthcare and research. There were 420 participants in the study of which 59 respondents were from the medical field, 118 respondents were students and faculty from the research field, 70 respondents identified as administrative staff, and 173 people marked 'other' as their occupation. Of the 420 respondents, only 40% had used ChatGPT before. More medical trainees and students as well as research students had used ChatGPT as compared to medical staff and research faculty.

3. The survey asked about the viability of ChatGPT for its use within the fields of education, research, and healthcare. The following table summarises the responses.

Question	Statement	Number of respondents
Should ChatGPT be used in Education?	No, it should be banned.	11
	I don't know; it is too early to make a statement.	226
	Yes, it should be actively incorporated.	183
Should ChatGPT be used in Research?	No, it should not be used at all.	6
	I don't know; it is too early to make a statement.	75
	Yes, but it should only be used to brainstorm.	68
	Yes, as long as its use is transparently disclosed.	259
	Yes, disclosure is NOT needed.	10
Should ChatGPT be used in Healthcare?	No, it should not be used at all.	15
	I don't know; it is too early to make a statement.	177
	Yes, it can be used for administrative purposes.	176
	Yes, it can be used for any purpose.	51

4. Based on the responses, there was a greater uncertainty around its use in healthcare and education, compared to using it in research. Regarding the use of ChatGPT in healthcare, a significant portion of respondents (42%) approved of using it for administrative purposes (*for example, preparing patient profiles or reports*) and a smaller population of respondents (12.2%) felt it could be used for any purpose.

5. The current application of ChatGPT and its future potential need to be examined. It can help students understand texts and write more effectively, simplify medical information for patients and automate administrative tasks and prepare a summary of information which otherwise would require hours of

reading through various resources. However, its negative impact must also be considered before institutions approve its use.

Source (edited): *'An Exploratory Survey about Using CHATGPT in Education, Healthcare, and Research'* - https://www.medrxiv.org/content/10.1101/2023.03.31.232 87979v1.full

Answer the following questions, based on the above passage.

(i) The following was a prompt posted by a user in ChatGPT as their first question:

'What's my name?'

Based on information from the passage, which of these is most likely to be ChatGPT's response?

    A) 'Error 404: page not found.'

    B) 'Your name is user 1000004.'

    C) 'Sorry, can you repeat the question?'

    D) 'Sorry, I don't have access to your data.'

1

(ii) The following are the profiles of some respondents from the survey. Based on the passage, which of these profiles is *MOST LIKELY* to be a part of the 40% who have used ChatGPT before?

    A) A manager in a hospital who has done 5 years of administrative work

    B) A professor of psychology who has 30 years of teaching experience

1

C) A college graduate who is studying in a 2-year master's course

D) A 25-year-old teacher who is working in a public school

(iii) Which of these is true about the respondents of the survey?   1

    A) It had 118 respondents who were employed in the field of education.

    B) It had 70 respondents who had administrative roles in educational institutions.

    C) It had 173 respondents who were working in the field of research including students.

    D) It had 59 respondents who were from the medical field including those who study medicine.

(iv) A detail from the passage that shows that we still do not know enough about ChatGPT.   1

    A) ChatGPT has been gaining attention for how closely it mimics human-like responses.

    B) It also does not collect any personal information of users.

    C) The current application of ChatGPT and its future potential need to be examined.

    D) Its negative impact must also be considered before we approve its use.

(v) **Complete the given sentence in ONE word.**   1

Based on the summary table, the _____ number of respondents thinks that ChatGPT should not be used.

(vi)	**State TRUE or FALSE.**	1

(vi) **State TRUE or FALSE.** 1

More than half of the respondents think it is OK to use ChatGPT in research if one clearly states its contribution.

(vii) **Why does the text say:** *The current application of ChatGPT and its future potential need to be examined.* 2

(viii) Why do you think some respondents feel that ChatGPT should be banned in education? State a reason in 40 words. 2

SECTION B : CREATIVE WRITING SKILLS
(18 marks)

All the names and addresses used in the questions are fictitious. Resemblance, if any, is purely coincidental.

3. **Attempt *ANY ONE* of the two, in about 50 words.** 4

(a) Carmel High School will be conducting a short course on news reading during the summer vacations for students of Class XI and XII. In this course, students will learn to understand news reports, build the habit of reading the news regularly, and will have a chance to interact with well-known journalists.

As Sourav Sen, Incharge of the school Debating Club, draft a **notice** in about 50 words for the school notice board, urging students to register. Mention any other relevant details required for the notice.

OR

(b) The Teen Well-Being Association of your society,

Shristinagar, Asansol, will be organizing city tours on cycles on Sunday mornings during the Summer vacations. As a member of the association, draft a **notice** in about 50 words informing the young residents. Mention any other relevant details required for the notice.

4. **Attempt *ANY ONE* of the two, in about 50 words.**   4

(a) You are the President of Interact Club at Burnpur Riverside School, Burnpur. Your school is organising a cultural evening aimed at spreading awareness about *Children with Special Needs* on the occasion of *International Day of Persons with Disabilities*. The programme will have a panel discussion and exhibition by the students throughout the day in the School Auditorium. In about 50 words, create an **invitation** for parents / guardians to attend. Mention the relevant details required for an invitation.

OR

(b) You and your parents have received an invitation for your elder cousin's wedding to be held in Jaipur on 6th of October. All of you would be delighted to attend. Draft a reply to your cousin accepting the invite and sharing your excitement while congratulating him.

5. **Attempt *ANY ONE* of the two , in about 120-150 words**   5

(a) A 72-year-old retired army officer residing in your area expired last Friday and as he had desired, his body was donated to the Medical College. It would be a second life for some persons receiving some vital organs retrieved from his

body. Write a letter to the Editor, The Telegraph, Kolkata, highlighting the importance of donating eyes and other organs post death to the needy persons. You are Namita / Namit, 125, Parcus Road, Bardhaman.

OR

(b) You are Arjun Sen, a fresh graduate of film-making (*BA in Film Making*) from Satyajit Ray Film & Television Institute (SRFTI). You saw the given advertisement in the newspaper and wish to apply for the position advertised. Write a letter to Mili Johar Arts, along with your bio-data, expressing your interest in the advertised post.

Mili Johar ARTS

ASSISTANT DIRECTORS wanted **-** For Feature Film

Opportunity for aspiring Assistant Directors

WHO DO WE NEED?

Freshers. Experienced, both welcome

REQUIRED - Degree/Diploma in Film Making

Skills: Camera handling, functional knowledge of Hindi, exceptional communication skills and ability to multi-task

Please send your bio data to - *The Johar House, Offices 05-06, Diyali Hill, Mumbai.*

(latest by 23 September 2025)

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6.   **Attempt *ANY ONE* of the two , in about 120-150 words**   5

(a)   Recent floods in many metropolitan cities of the country during the monsoon season laid bare the hollowness of the claims of the civic authorities of their preparedness. The poor had to bear the brunt of the problem while no one was ever held accountable. Write an **article** on the common man's woes during the monsoons and the need for accountability of the officials concerned. You are Sumit / Smita Verma.

OR

(b)   You are Peeyush / Priya, a student of Class XII and a member of the School Magazine Editorial Board. Your school had hosted a Career Fair recently. 42 universities, including some renowned ones, from across the country took part in the fair. Draft a **comprehensive report** detailing the fair activities, including description of the event, participation details and overall impact of the fair on students. You may organize your report by using the following cues:

Who – What – When – Where – Why – How

SECTION C : LITERATURE (40 marks)

7.   **Read the given extracts and answer the questions for ANY ONE of the two, given.**   6

(a)   *A thing of beauty is a joy forever*

Its loveliness increases, it will never

pass into nothingness; but will keep

A bower quiet for us, and a sleep

Full of sweet dreams, and health, and quiet breathing,

Therefore, on every morrow are we wreathing

A flowery band to bind us to the earth.

(A Thing of Beauty)

(i)   By the phrase "*joy forever*', the post refers to things -

    A) that make people extremely happy.

    B) that are a feast to eyes.

    C) that are a constant source of happiness.

    D) that are beautiful but transient.

(ii)   **Read the Assertion and the Reason below, with reference to the given extract:**

Assertion: Keats states that man derives strength and inspiration from the beauty of nature.

Reason: Nature gives physical and mental solace to man.

Choose the correct option regarding their relationship.

    A) Both the Assertion and Reason are true, and the Reason is the correct explanation of the Assertion.

    B) Both the Assertion and Reason are true, and the Reason is not the correct explanation of the Assertion.

    C) The Assertion is false, but the Reason is true.

    D) The Assertion is true, but the Reason is false.

(iii) **Choose the correct option:**

By using the expression *'never pass into nothingness'* the poet states that nature's beauty will create a _____ (lasting / temporary) impression on man's mind.

(iv) **Complete the following sentence:**

'a sleep full of sweet dreams' implies_____.

(v) Select one phrase from the extract which implies that man wants to continue his life on this earth despite innumerable problems.

(vi) How does Keats make it evident that there is a link between man's wellness and nature's beauty?

<div align="center">***OR***</div>

(b)   *While greedy good-doers, beneficent beasts of prey,*

    Swarm over their lives enforcing benefits

    That are calculated to soothe them out of their wits,

    And by teaching them how to sleep they sleep all day,

    Destroy their sleeping at night the ancient way.

<div align="right">*(A Roadside Stand)*</div>

(i) Identify the tone of the poet in the above lines?

   a) Aggressive

   b) Tolerant

   c) Ironic

   d) Resigned

Choose the most appropriate option.

> A) (a)
>
> B) (a) and (c)
>
> C) (a), (c) and (d)
>
> D) (c)

(ii) **Read the assertion and the reason below, with reference to the given extract.**

Assertion: Even altruism by the good-doers is with a motive.

Reason: The calculated benefits by the good-doers are only to further exploit the poor.

Choose the correct option regarding their relationship:

A) Both the assertion and the reason are true, and the reason is the correct explanation of the assertion.

B) Both the assertion and the reason are true, but the reason is not the correct explanation of the assertion.

C) The assertion is true, but the reason is false.

D) The assertion is false, but the reason is true

(iii) **Select the phrase that suggests the following:**

The so-called aids are not offered out of genuine care or consent but are imposed in a controlling and perhaps unwelcome manner.

(iv) **Complete the following suitably.**

In the line, '*destroy their sleeping at night the ancient way,*' the phrase '*the ancient way*' refers to _____.

(v)   **Complete the following analogy. Do NOT repeat from used example.**

greedy good doers: alliteration ::_____: oxymoron

(vi)   **State whether the given statement is TRUE or FALSE, with reference to the extract.**

The village people sleep and take rest during the day.

8.   **Read the given extracts and answer the questions for ANY ONE of the two, given.**   4

(a)   *At midnight when the town slept in peace, the Dewan and his aged wife dragged the tiger to the car and shoved it into the seat. The Dewan himself drove the car straight to the forest where the Maharaja was hunting. When they reached the forest, the tiger launched its Satyagraha and refused to get out of the car. The Dewan was thoroughly exhausted in his efforts to haul the beast out of the car and push it down to the ground.*

On the following day, the same old tiger wandered into the Maharaja's presence and stood as if in humble supplication, "Master, what do you command of me?" It was with boundless joy that the Maharaja took careful aim at the beast. The tiger fell in a crumpled heap.

(The Tiger King)

(i)   How did the Dewan manage to take the tiger to the forest?

      A) The Dewan conceded to the tiger's *Satyagraha.*

      B) The Dewan pushed the tiger into the car and drove to the forest.

      C) The Dewan hauled the tiger into the tent.

      D) The Dewan persuaded the tiger into a humble supplication of the Maharaja.

(ii) **Choose the correct option:**

The attitude of the Dewan in the above extract can be described as _____ (negligent and reluctant / meek and servile)

(iii) Select one statement or expression from the extract that reflects the humorous writing style of the author.

(iv) State one reason for the 'boundless joy of the Maharaja'.

<center>***OR***</center>

(b)   *The rapid increase of human populations has left us battling with other species for limited resources, and the unmitigated burning of the fossil fuels has now created a blanket of carbon dioxide around the world, which is slowly but surely increasing the average global temperature.*

Climate change is one of the most hotly contested environmental debates of our time. Will the west Antarctic ice sheet melt entirely? Will the Gulf stream ocean current be disrupted? Will be the end of the world as we know it?

<div align="right">

(Journey to the End of the Earth)

</div>

(i) **Choose the correct option that best reflects the tone of the writer in the last line of the extract.**

    A) happy and excited

    B) encouraging and optimistic

    C) anxious and concerned

    D) spiteful and bitter

(ii) **Choose the correct option:**

'Unmitigated burning of fossil fuels' reflects the _____ (avaricious / furious) streak in man's nature.

(iii) List one way in which the increasing human population is affecting other species.

(iv) In the above extract, what message is the author giving to mankind?

9. **Read the given extracts and answer the questions for ANY ONE of the two, given.**   6

(a) *What a thunderclap these words were to me! Oh, the wretches; that was what they had put up at the town-hall! My last French lesson! Why, I hardly knew how to write! I should never learn anymore! I must stop there, then! Oh, how sorry I was for not learning my lessons, for seeking birds' eggs, or going sliding on the Saar! My books, that had seemed such a nuisance a while ago, so heavy to carry, my grammar, and my history of*

the saints, were old friends now that I couldn't give up.
And M. Hamel, too; the idea that he was going away,
that I should never see him again, made me forget all
about his ruler and how cranky he was.

(The Last Lesson)

(i) *Select the textual option that is closest to indicating a sense of panic.*

   A) Oh, how sorry I was for not learning my lessons…

   B) Why, I hardly knew how to write!

   C) Oh, the wretches; that was what they had put up at the town-hall!

   D) And M. Hamel, too;

(ii) What was the writer's purpose in using the metaphor of a '*thunderclap*'?

   A) To emphasise the suddenness and shock of Franz's understanding of the importance of learning his language.

   B) To highlight the importance of the last French class.

   C) As an understanding of the news put up at the town-hall.

   D) All of the above

(iii) **State whether the given statement is TRUE or FALSE, with reference to the extract.**

   The book on history of the saints helped Franz change his outlook on books.

(iv)   What is reflected through the shift in the speaker's perception of Mr. Hamel, conveyed through his readiness to forget the ruler?

(v)   **Complete the sentence appropriately.**

The activities of seeking birds' eggs and sliding on the Saar reveal two things about Franz's character before his change in perspective. First, his youthful carefree nature and second his preference for _____.

(vi)   **Select the correct option from those given in brackets to fill in the blank.**

The use of exclamatory marks in the first five sentences of the extract serves to express the speaker's _____ (hidden/ intense) emotions.

OR

(b)   *The old man was just as generous with his confidences as with his porridge and tobacco. The guest was informed at once that in his days of prosperity his host had been a crofter at Ramsjo Ironworks and had worked on the land. Now that he was no longer able to do day labour, it was his cow which supported him. Yes, that bossy was extraordinary. She could give milk for the creamery every day, and last month he had received all of thirty kronor in payment.*

The stranger must have seemed incredulous, for the old man got up and went to the window, took down a leather pouch which hung on a nail in the very window frame,

and picked out three wrinkled ten-kronor bills.

(The Rattrap)

(i) Based on the extract, which of these can we infer about the old man?

    A) He made more money at the creamery than as a crofter.

    B) His occupation changed due to the limitations of old age.

    C) His generosity increased as he became more prosperous in old age.

    D) He preferred to earn by being his own boss rather than working under someone.

(ii) Select the most *appropriate trait* of the old man that the extract reveals.

    A) kind

    B) Respectful

    C) Hospitable

    D) helpful

(iii) **Complete the sentence appropriately.**

The old man was *generous* in the sense _____.

(iv) **State whether the given statement is TRUE or FALSE.**

"Yes, that bossy was extraordinary." She looked marvellous.

(v) Which phrase / statement from the extract supports the idea that the crofter had been once rich?

(vi) Why would the peddler have seemed *'incredulous'*? State a reason.

10. **Answer *ANY FIVE* of the following six questions, in about 40-50 words each.**   5x2

(i)   *Garbage has two different meanings — one for the children and another for the adults.* Comment.

(ii)   Why did William Douglas use the YMCA pool and not Yakima river to learn swimming?

(iii) Why did Kamala Das add the image of merry children to her poem?

(iv)   How would humanity benefit if people maintained silence?

(v)   Why did Gandhi agree to a settlement of 25% refund to the farmers?

(vi)   Explain – *"...interviews as being like thumbprints on his windpipe"*

11. **Answer *ANY TWO* of the following three questions, in about 40-50 words each.**   2x2

(i)   How did Charley make sure that he was not in the present time at the *third level* of the Grand Central?

(ii)   With reference to *'The Enemy'*, describe any two ways in which Sadao's father influenced Sadao's life.

(iii) In the story, *'On the Face of It'*, what brings Derry and Mr. Lamb together as friends?

12. **Answer *ANY ONE* of the following two questions, in about 120-150 words.**   5

(a) Account for Subbu's importance in the Gemini Studios. (*Poets and Pancakes*)

OR

(b) How does Umberto Eco define the huge success of the novel "*The Name of the Rose*"?

13. **Answer *ANY ONE* of the following two questions, in about 120-150 words.**   5

(a) *Dr Sadao faced a dilemma. Should he use his 'surgical skills to save the life of a wounded American POW or should he hand him over to the Japanese police?* How did he resolve the clash of values?

OR

(b) What significance does the title*, "Journey to the End of the Earth"* hold*?*

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Name _____Sec _____Roll No._____

BURNPUR RIVERSIDE SCHOOL, BURNPUR
HALF YEARLY EXAMINATION : [2025-26]
ENGLISH CORE
CLASS – XII

Time: 3 Hours   **Maximum Marks: 80**

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GENERAL INSTRUCTIONS:

Read the following instructions very carefully and strictly follow them:

   i.   *This question paper has 13 questions. All questions are compulsory.*

   ii.   *This question paper contains three sections.*
      Section A: Reading Skills
      Section B: Creative Writing Skills
      Section C: Literature

   iii.   *Attempt all the questions based on specific instructions for each part. Write the correct question number and part thereof in your answer sheet.*

   iv.   *Separate instructions are given with each question / part, wherever necessary.*

   v.   *Adhere to the prescribed word limit while answering the questions.*

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SECTION A   22
READING SKILLS

1.   **Read the passage given below:**   12

   1. World Conservation Day is celebrated internationally to increase awareness about the best practices needed to protect our natural resources. The Earth is supplied with a limited amount of resources that we all rely upon, like water, air, soil

and trees. The World Nature Conservation Movement is a great opportunity to celebrate the progress we've made and determine to take action, wherever needed. It is time to remind ourselves that we need to give back to nature instead of just using resources without thinking about conservation. There is a need to replenish and recycle the resources we consume from nature.

2. Our forests, rivers, oceans and soils provide us with the food we eat, the air we breathe and the water we irrigate our crops with. We also rely on them for numerous other goods and services. We depend on them for our health, happiness and prosperity. We have a cycle of biodiversity which needs proper conservation.

3. The population explosion remains one of the major reasons why natural resources are getting depleted at a very fast rate. Technological advancement and luxurious lifestyles have led to several environmental problems like global warming, ozone layer depletion, river water pollution and deforestation, which threaten the planet's future.

4. Humans, animals, marine creatures and the environment, all need to be protected and conserved for the planet's future well-being. There are many examples of conservation. One is a programme to try to preserve wetlands or a programme to try and save old buildings. Another example is an attempt to minimize the amount of electricity used by turning off lights when leaving a room or an attempt to turn off the running tap to avoid wastage of water. There are lots of examples like these which need implementation.

5. Following these small steps in our daily lives we can help to maintain the balance of nature, thereby saving humankind from the kinds of natural disasters we may face in the near future.

6. Nature also has a profound impact on our minds and our behaviour, helping reduce anxiety, brooding, stress and increase

our attention, capacity, creativity and ability to connect with other people. So, there is a need to save nature if we want to save life as the two are interconnected and need each other. If we hurt or destroy the environment, surely, we will be ruined. We must create awareness among family members and try and practice a sustainable lifestyle to protect and conserve nature.

On the basis of your understanding of the above passage, answer the following questions.

I.   Select the most suitable title for the above passage.   1

(1) Ways to Save the Environment
(2) Save Nature Save Life
(3) Nature – A Pharmacy
(4) Nature – A Food Factory

a. Only (2)
b. (2), (3) and (4)
c. Only (1)
d. (1) and (4)

II. Complete the sentence by choosing the appropriate option: 1

There is an urgent need to conserve our natural resources because
………………………………

a. we are aimlessly using the natural resources and not replenishing them.
b. they will be replaced by man-made resources.
c. serious efforts are needed to cut down the consumption of these resources.
d. we must become alert before it is too late.

III. How can the solutions suggested in paragraph 4 be best described?   1
a. Unrealistic
b. Short term
c. Practical
d. Challenging

IV. The writer would not agree with the given statements based on paragraph 6, EXCEPT 1

    a. stress can be relieved by working overtime.
    b. nature can affect man's emotional well-being.
    c. lifestyle cannot be changed permanently.
    d. destruction of the environment is a temporary measure undertaken by man.

V. Complete the given sentence with an appropriate reference with respect o the following: 1

The writer quotes the example of family awareness in order to ……………………………. (paragraph 6)

VI. Why is it fair to say that population explosion remains one of the major reasons why natural resources are getting depleted rapidly? 1

VII. In paragraph 1, the writer talks about 'celebrating the progress.' Explain in context. 1

VIII. Find a word from paragraph 1 which is a synonym of restore. 1

IX. List two ways in which forests and rivers help mankind. 2

X. In the opinion of the writer, which are the primary natural resources? Why are they considered primary? 2

2. **Read the passage given below.** 10

1. **Introduction:** As the world grapples with climate change, renewable energy has emerged as a crucial solution. This case study aims to analyze the increasing use of renewable energy in India, its adoption across different sectors and the implications for society and the environment.
2. **Methodology:** A survey was conducted among households, businesses and industries across various regions in India.

Participants were asked about their primary source of energy (traditional fossil fuels and renewable energy) and the reasons for their preferences. The data was then analyzed to identify trends and patterns among different demographics and sectors

3. **Survey Examination:** The survey encompassed a comprehensive examination of energy consumption habits, not only focusing on the preferred sources of energy but also delving into the underlying motivations and influences guiding these choices. Beyond mere preference, participants were encouraged to articulate the reasons behind their selections, providing invaluable insights into the multifaceted nature of energy consumption.

4. **Results:** The survey results revealed interesting insights into the energy preferences among different groups:

S. No.	Demographic Preferences	%	Preferred Source	Reasons for Preference
1.	Households	62	Renewable	Environmental concerns, cost savings, government incentives
2.	Small Businesses	55	Renewable	Cost efficiency, public image, sustainability
3.	Large Industries	48	Renewable	Long-term savings, corporate responsibility compliance
4.	Rural Areas	71	Renewable	Accessibility, reliability, local employment opportunities
5.	Urban Areas	58	Renewable	Environmental awareness. Incentives, modern infrastructure

5. **Implications for Interventions:** By discerning the diverse preferences among different demographics, policymakers and energy providers, one can tailor interventions to address specific needs. For instance, increasing government incentives and subsidies for renewable energy can encourage more households and businesses to adopt sustainable practices. Concurrently, efforts to improve the infrastructure for renewable energy can enhance its reliability and accessibility. By harnessing the insights gleaned from the study, stakeholders can collaboratively work towards building a cleaner and more sustainable future for generations to come.

On the basis of your understanding of the above passage, answer the following questions.

I. What would the following be classified as? 1

To examine energy preferences across various demographics in detail and assess their implications.

Select the appropriate response:

   a. Primary purpose
   b. Method of analysis
   c. Secondary objective
   d. Research outcome

II. Read the following text: 1
Rajan, a rural household head, prefers using solar panels for energy due to their reliability and the local employment opportunities they provide. His neighbour, Rama, a small business owner, values renewable energy for its cost efficiency and sustainability. Meanwhile Suresh, who runs a large industry, opts for renewable energy due to corporate responsibility and compliance with regulations.
Select the option that identifies the correct demographic they belong to.

    a. Rajan – household worker; Rama – small business owner; Suresh – large industry owner

    b. Rajan – rural employee; Rama – urban worker; Suresh – household head

    c. Rajan – rural household head; Rama – small business owner; Suresh – large industry owner

    d. Rajan – urban worker; Rama – large industry owner; Suresh – rural worker

III.   What is the ultimate goal for stakeholders, based on the insights from the study?   1

    a. increase profitability through enhanced renewable infrastructure
    b. build a sustainable future
    c. reduce the cost of energy
    d. expand the range of renewable energy products available

IV.   Although both rural and urban areas prefer renewable energy, why is the preference percentage higher among rural areas?   1

    a. Accessibility
    b. Reliability
    c. Local employment opportunities
    d. All of the above

V.   Paragraph (3) includes the words – 'motivations' and 'influences'. Classify the following sentences as influence or motivation.   1

Sentence 1: Government incentives lead households to prefer renewable energy over traditional fossil fuels.

Sentence 2: The desire for long-term savings makes large industries choose renewable energy.

VI.   Complete the following suitably: 1
In the introduction, the researcher links climate change with the rise of renewable energy by highlighting ……………………

VII. Mention the two steps adopted in the survey methodology. 2

VIII. Analyse how targeted interventions based on diverse energy preferences of different demographics can lead to improved environmental outcomes. Paragraph (5) 2

SECTION B 18

CREATIVE WRITING SKILLS

All the names and addresses used in the questions are fictitious, resemblance, if any, is purely coincidental.

3. **Attempt <u>ANY ONE</u> of two, A or B, in about 50 words.** 4

A. Your school is organizing a fete to collect funds for charity. Only school students are eligible to put up stalls. As the Head Boy / Head Girl of Meera International School, draft a notice for the school notice board announcing the same. Invent all necessary details.

OR

B. Residents' Welfare Association (RWA) of Silver Crystals Society, Paschim Vihar is planning to organize a free hypertension check-up session for its residents. You are Ratna / Rahul Sharma, the Secretary of the mentioned society. Draft a notice informing the residents about the time and venue of the upcoming session.

4. **Attempt <u>ANY ONE</u> of two, A or B, in about 50 words.** 4

A. Your school is organizing its Annual Day Function next month in one of the most prestigious auditoriums of your city. Draft an invitation giving all the essential details. Do not forget to include necessary instructions against usage of mobile phones and cameras.

OR

B. You are Manvi / Manav. You have been invited to attend a birthday party of your closest friend. Draft a reply accepting the invitation.

5. **Attempt <u>ANY ONE</u> of two, A or B, in about 120-150 words.** 5

A. Financial literacy is increasingly recognized as a crucial 21st century skill for young individuals. Write a letter to the editor of a local daily discussing the benefits of providing financial literacy education to children. Also, suggest effective ways to raise awareness about the importance of this education among parents and guardians. You may use some of the given cues along with your own ideas to draft the letter. You are a counsellor, Chitra / Chirag Mahapatra from Puri, Odisha.

- What are the long-term benefits of learning financial independence from a young age?

- Why is understanding the power of finances beneficial for young learners?

- Why skills learned during childhood tend to have a lasting impact.

OR

B. You saw the following advertisement in a national day. Do you think you are eligible to apply for the post mentioned. Write an application in response to the advertisement.

> Applications are invited by Sundaram Business Services, a division of Sundaram Finance Limited, for the post of HR Manager, a middle management position, reporting to the Head of the Division in Chennai. The applicant should be around 37 years of age with a postgraduate qualification in HR from a reputed institution. He / She should have a minimum of five years of experience in HR functions, should be conversant with the best HR practices in the industry and should have implemented a robust performance monitoring/appraisal system and productivity linked incentive schemes. Apply with full particulars within a week to the Chief HR Manager, Sundaram Business Services, No. 05, Shanti Colony Anna Nagar, Chennai – 04.

6.   **Attempt <u>ANY ONE</u> of two, A or B, in about 120-150 words.**   5

A.   Which the advancement of science and technology, basic communication has adversely impacted the social skills of today's youth. You are Girija / Girish of Class XII. Write an article for your school magazine highlighting adverse effects of technology and the ways to enhance social skills among the younger generation to prevent social awkwardness.

You may use the following cues along with your own ideas to draft the article.

Impact

- Decrease in face-to-face communication

- Lack of engagement

- Inability to converse and poor inter-personal skills

Suggestions

- Improve conversational and communication skills

- Personal interaction, develop collaborative skills

- Outdoor sports and activities

OR

B.   The members of your school's Drama Club recently put up a street play at the Central Park of your city. The theme of the play was Education – An Equal Opportunity. As President of the Drama Club, write a report on the event to be published in your school newsletter. Use the following cues along with your own ideas to compose the report.

Cues

> - Date, venue, time
>
> - Number of participants
>
> - Performance followed by interactive session with spectators
>
> - Star actors
>
> - Response
>
> - People's feedback/response

SECTION C   40
LITERATURE

7.   **Read the extracts given below and attempt <u>ANY ONE</u> of the two,**   6
       A or B, by answering the questions that follow.

A.   *Therefore, on every morrow, are we wreathing*
A flowery band to bind us to the Earth,
Spite of despondence, of the inhuman dearth
Of noble natures of gloomy days,
Of all the unhealthy and o'er darkened ways
Made for our searching: yes, in spite of all,
Some shape of beauty moves away the pall
From our dark spirits.

(A Thing of Beauty)

I.   Pick the option that enumerates what 'noble natures' would include: 1

       a. Selfishness
       b. Judiciousness
       c. Enthusiasm
       d. All of these

II. Read the assertion and reason below, with reference to the given extract and choose the correct option regarding their relationship: 1

Assertion: The poet presents the healing power of nature.

Reason: The poet states we all are living a life full of struggles.

    a. Both the Assertion and the Reason are true and the Reason is the correct explanation of the Assertion.
    b. Both the Assertion and the Reason are true but the Reason is not the correct explanation of the Assertion.
    c. The Assertion is true but the Reason is false.
    d. The Assertion is false but the Reason is true.

III. What makes our life full of inhuman dearth? 1

IV. Select the correct option from those given in the bracket, to fill in the blanks. 1

The Earth without the beautiful things is a place full of …………………. (despair/anguish) and unpleasantness.

V. Complete the following sentence with reference to the extract. 1

The poet says that we wreath a flowery band that binds us to the Earth. He means to state that nature's beauty fills man with _____.

VI. What message does the poet give about nature? 1

OR

B.   *While greedy good-doers, beneficent beasts of prey,*
Swarm over their lives enforcing benefits
That are calculated to sooth them out of their wits,
And by teaching them how to sleep they sleep all day,
Destroy their sleeping at night the ancient way.

(A Roadside Stand)

I. What does the imagery of 'swarm' NOT represent in the given extract?   1

   a. Coordinated help
   b. Overwhelming force
   c. Discomfort and chaos
   d. Neglect of individual needs

II. Read the assertion and reason below, with reference to the given extract and choose the correct option regarding their relationship: 1

   Assertion: The poet criticizes the way the rural poor are treated by benefactors, suggesting it instills ambition.

   Reason: The interventions are overwhelmingly calming and lead to a loss of critical thinking among the rural poor.

   a. Both the Assertion and the Reason are true and the Reason is the correct explanation of the Assertion.
   b. Both the Assertion and the Reason are true but the Reason is not the correct explanation of the Assertion.
   c. The Assertion is true but the Reason is false.
   d. The Assertion is false but the Reason is true.

III. Select the phrase that suggest the following.   1

   The so-called aids are not offered out of genuine care or consent but are imposed in a controlling perhaps unwelcome manner.

IV. Select the correct option from those given in the bracket, to fill in the blanks.   1

   The poet has used phrases like 'greedy good-doers' and 'beneficent beasts of prey' to illustrate the ………………… (irony/satire) in the situation where those claiming to help the rural poor actually impose self-serving and detrimental actions on them.

V. Complete the following suitably: 1

In the line, 'destroy their sleeping at night the ancient way,' the phrase 'the ancient way' refers to …………………………

VI. State in one sentence, what cautionary advice your address to the rural poor from the extract, is most likely to include. 1

8. **Read the extracts given below and attempt <u>ANY ONE</u> of the two, A or B, by answering the questions that follow.** 4

A. *The Maharaja and the dewan held deliberations over this issue. As a result, a telegram was despatched forthwith to a famous British company of jewellers in Calcutta. 'Send samples of expensive diamond rings of different designs.'*

(The Tiger King)

I. Why were the deliberations held? 1

    a. To find out a way to procure tigers
    b. To please the British Officer
    c. To save the kingdom from usurpation
    d. To gain favours from the British

II. Complete the following sentence appropriately with reference to the extract. 1

The rings were gifted to …………………………..

III. Which emotions were the Maharaja and the dewan feeling in the extract? 1

IV. With what purpose does Maharaja seek to send the rings to wife of the British Officer? 1

OR

B.   *You lose all earthly sense of perspective and time here. The visual scale ranges from the microscopic to the mighty: midges and mites to blue whales and icebergs as big as countries (the largest recorded was the size of Belgium). Days go on and on and on in surreal 24-hour austral summer light and a ubiquitous silence, interrupted only by the occasional avalanche or calving ice sheet, consecrates the place. It's an immersion that will force you to place yourself in the context of the earth's geological history. And for humans, the prognosis isn't good.*

(Journey to the End of the Earth)

I.   The 'visual scale' refers to: 1

  a. a measuring device
  b. range of things one can see
  c. a visionary belief
  d. the magnitude of preparation

II.   State True or False.   1

  The 'earthly sense of perspective and time' that Doshi refers to in the extract is missing in Antarctica because it is inhabited by human beings.

III.   Complete the sentence appropriately: 1

  The use of the word ''surreal' suggest …………………

IV.   How has the writer done justice to the description of Antarctica?   1

.

9. **Read the extracts given below and attempt <u>ANY ONE</u> of the two, A or B, by answering the questions that follow.** 6

A. *I jumped over the bench and sat down at my desk. Not till then, when I had got a little over my fright, did I see that our teacher had on his beautiful green coat, his frilled shirt and the little black silk cap, all embroidered, that he never wore except on inspection and prize days. Besides the whole school seemed strange and solemn.*

(The Last Lesson)

I. Based on the above extract, choose the statement that is true for the teacher. 1

    a. He was a strict teacher.
    b. He was getting emotional in the class.
    c. He wanted to make this lesson special.
    d. Both (a) and (c)

II. The teacher was wearing his special clothes for a day that he would never want to forget. What is the teacher feeling? 1

    a. Angry
    b. Nostalgic
    c. Melancholic
    d. Jovial

III. Why was 'I' in a fright? 1

IV. Select the correct option from those given in the bracket, to fill in the blanks. 1

There were a few villagers sitting in the back as they were …………….. (regretful / nostalgic).

V. Complete the sentence with an appropriate explanation, as per the extract. 1

M. Hamel was dressed so formally because ……………………

VI.   Identify the textual clue that allows the reader to infer that the school   1
      was different that day.

OR

B.   *No one can imagine how sad and monotonous life can appear to such*
      a vagabond, who plods along the road, left to his own meditations.
      But one day this man had fallen into a line of thought, which really
      seemed to him entertaining. He had naturally been thinking of his
      rattraps when suddenly he was struck by the idea that the whole
      world about him – the whole world with its lands and seas, its cities
      and villages – was nothing but a big rattrap. It had never existed for
      any other purpose than to set baits for people.

(The Rattrap)

I.   According to the extract, which of these words best describes the   1
      man?

      a. reflective
      b. impulsive
      c. indifferent
      d. simpleminded

II.   On the basis of the extract, choose the correct option with reference to   1
      the two statements given below:

      1. The world offers living beings a life full of pleasure.
      2. However, only compassionate people can enjoy those
         pleasures.

      a. (2) has been caused by (1)
      b. (2) is a hypothesis based on (1)
      c. (1) cannot be inferred from the extract but (2) can be
      d. (1) can be inferred from the extract but (2) cannot be

III. Rewrite the given sentence after replacing the underlined phrase with   1
      its synonym.

      It had never existed for any other purpose than to set baits for people.

IV.   Rationalize the given statement.   1

It is challenging for others to be able to understand the despair of vagabond's life.

V.   Replace the underlined word with its antonym from the extract.   1

The man who thought that the world was a rattrap lived a life that was <u>interesting</u>.

VI.   Who is a vagabond?   1

10.   **Answer <u>ANY FIVE</u> out of the six questions, in about 40-50 words each.**   10

I.   'When I sense a flash of it in Mukesh. I am cheered.' How is Mukesh's attitude of life different from that of his family and friends?   2

(*Lost Spring*)

II.   What happened at the California Beach?   2

(*Deep Water*)

III.   What is the significance of the parting words of the poet and her smile?   2

(*My Mother at Sixty-Six*)

IV.   According to the poet, what is it that human beings can learn from nature?   2

(*Keeping Quiet*)

V.   "I am Rajkumar Shukla. I am from Champaran and I want you to come to my district!" How did Rajkumar Shukla establish that he was a resolute man?   2

(*Indigo*)

VI.   What are the views of writers like V. S. Naipaul and Lewis Carroll on interviews?   2

(*The Interview*)

11. **Answer ANY TWO out of the three questions, in about 40-50** 4
words each.

I. What did the psychiatrist think about Charley's stamp collection? 2
Why did Charley not agree with him?

(The Third Level)

II. Why was Dr. Sadao not sent to the battlefield? 2

(The Enemy)

III. How does Susan Hill subtly portray a blend of pessimism and 2
optimism?

(On The Face Of It)

12. **Answer ANY ONE out of the two questions, in about 120-150** 5
words.

A. What were the positive qualities of Subbu that the writer admired?

(Poets and Pancakes)

OR

B. What made the American publisher think that the novel 'The Name of
the Rose' won't sell in America? What actually happened? What was
the secret of its success?

(The Interview)

13. **Answer ANY ONE out of the two questions, in about 120-150** 5
words.

A. The influence of belief in traditions such as religion, family bonds or
patriotism can be used to develop narrative techniques like setting,
motivation, sources of conflict and pacing. Analyse how the writer
has incorporated such influences to good effect in the story, 'The
Enemy'. Support your answer with valid textual evidence.

B. Justify the title 'Journey to the End of the Earth' as a metaphor for devastating climate change. Mention another reason for the title of the text.

=====================================

Name _____Sec ____Roll No._____

BURNPUR RIVERSIDE SCHOOL, BURNPUR
HALF - YEARLY EXAMINATION : [2025 – 2026]
CLASS - XII
PHYSICS

Time: 3 Hrs.   Maximum Marks: 70

==

General Instructions:

All questions are compulsory however there is internal choice in some selections.
Section A contains 16 questions each of one mark.
Section B contains 5 questions each of two marks.
Section C contains 7 questions each of three marks.
Section D contains 2 case-based questions in each of four marks.
Section E contains 3 questions each of five marks.

==

SECTION: A

Q1. Two positive ions each carrying charge of q are separated by distance of d. If the force of repulsion between them is F, then no of missing electron from each ion will be: 1

(a)$4\pi\epsilon_oFd^2/e$ (b)$(4\pi\epsilon_oFe^2/d^2)^{1/2}$

(c) $(4\pi\epsilon_oFd^2/e^2)^{1/2}$ (d) $4\pi\epsilon_oFd^2/e^2$

Q2. A charge Q is placed at each of the two opposite corners of a square. A charge q is placed at each of the other two corners. If the resultant force on each charge q is zero then: 1

(a)$q=\sqrt{2Q}$ (b)$q= -\sqrt{2Q}$

(c)$q= 2\sqrt{2Q}$ (d)$q= -2\sqrt{2Q}$

Q3. Eight small drops , each of radius r having same charge q are combined to form a big drop . The ratio between the potential of bigger drop to smaller drop is :   1

(a)8:1   (b)4:1   (c)2:1   (d)1:8

Q4. A parallel plate capacitor is charged to a certain potential difference. when 3mm thick slab is slipped between the plates, then to maintain same potential difference, the plate separation is to be increased by 2.4mm. the value of dielectric constant is: 1

(a)6   (b)5   (c)2   (d)4

Q5.   12 cells , each of emf 1.5V and internal resistance 0.5Ohm are   1
arranged in a mixed connection, with n cells in each row and m rows.
Then calculate the value of m and n for which current in external
resistance R=1.5Ohm is maximum.
(a)n=2,m=6   (b)n=3,m=4   (c)n=6,m=2 (d) n=4,m=3

Q6.   A uniform wire is cut into 10 segments increasing in length in equal   1
steps. The resistance of the shortest segment is R and the resistance of
other segments increase in steps of 8 ohm. If the resistance of longest
segment is 2R, then what is value of resistance R.
(a)62   (b) 82   (c) 72   (d)92

Q7.   A proton, a deuteron and an alpha particle are having same kinetic   1
energy are moving in circular trajectories in a constant magnetic field.
If r_p , r_d and r_{alpha} denote radii of their trajectories then r_p: r_d: r_{alpha} is:
(a)1:2:1   (b)1:√2:1   (c) 1:1:1   (d) 2:1:1

Q8.   Which material is repelled by magnets: 1
(a)ferro magnetic material
(b) diamagnetic material
(c)Para magnetic material
(d) ferro and para magnetic material

Q9.   1
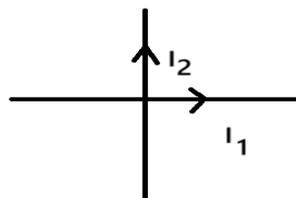
Two mutually conductors carrying current I_1 and I_2 are placed
mutually perpendicular to each other. Then locus of the points where
net magnetic field is zero is :
(a) $y = \dfrac{I_1}{I_2}\, x$ (b) $x = \dfrac{I_1}{I_2}\, y$ (c) $y = \dfrac{I_1}{I_2}\, x^2$ (d) $y^2 = \dfrac{I_1}{I_2}\, x$

Q10   For which material **susceptibility** is independent of temperature: 1
(a)ferro magnetic material
(b) diamagnetic material
(c)Para magnetic material
(d) ferro and para magnetic material
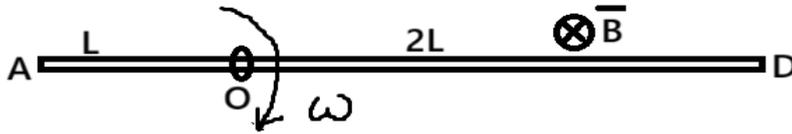
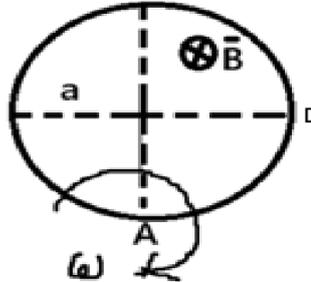Q11   1

A rod of length 3L is rotated about hinge O with angular velocity ω ,magnetic field is inside the plane as shown in the figure. Then V_D-V_A is:

(a)$(B \omega L^2)/2$ (b) $(B \omega L^2)$ (c) $(3B \omega L^2)/2$ (d) $(2B \omega L^2)$

Q12   1

A conducting circular ring of radius a is rotated with angular velocity of ω about point A. Then potential difference across D and A is:

(a)$B\omega a$ (b)$B\omega a^2$ (c) $B\omega a^2/2$ (d) $B\omega a^2/4$

Reasoning Assertion type.

Instruction for question no 13 to 16.

Question contains two statements, Assertion and Reason. Question also has four alternative choices, only one of which is the correct answer. You have to select one of the codes (a), (b), (c) and (d) from given below.

(a) Assertion is correct, reason is correct; reason is a correct explanation for assertion.
(b) Assertion is correct, reason is correct; reason is not a correct explanation for assertion
(c) Assertion is correct; reason is incorrect
(d) If both Assertion and reason is false

Q13   **ASSERTION:** If the bob of a pendulum is kept in horizontal electric field its period of oscillation will remain same.   1
        REASON: If the bob is charged and kept in a horizontal electric field, then time period will decrease.

Q14   **ASSERTION:** Electric potential of Earth is taken as zero.   1
        REASON: No electrical field exist on the surface of Earth.

Q15   **ASSERTION:** The equivalent resistance of resistors in parallel   1
combination is smaller than least resistance used in combination.
REASON: The resistivity of the material is independent of
temperature.

Q16   **ASSERTION:** A charged particle is rotating in a circle, then magnetic   1
field (B) at the centre of the circle and magnetic moment (M)
produced by motion of charged particle are parallel to each other
REASON: Magnetic moment (M) and magnetic field (B) are always
parallel to each other.

SECTION: B

Q17   Derive an expression for electric field due to a dipole at a point on the   2
axial line of an electric dipole outside the dipole.

OR

Derive the expression of torque due to an electric dipole placed in a
uniform electric field.

Q18   Draw three equipotential surfaces corresponding to a field that   2
uniformly increases along Z direction in magnitude but remains
constant in direction along Z direction. How are these lines different
from that of a constant electric field along Z direction.

Q19   Draw the graph of variation of susceptibility of a paramagnetic   2
substance and a Diamagnetic substance with temperature.

Q20   Define one Henry. Write the dimension of coefficient of self-   2
induction.

OR

Derive the expression for coefficient of self-induction for a long
solenoid.

Q21   Prove that in a capacitor current lead from the voltage when an ac   2
voltage source is applied across a capacitor of capacitance **C**.
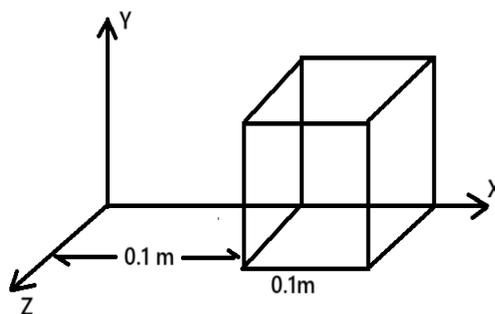
OR

Prove that in an inductor current lag from the voltage when an ac
voltage source is applied across an inductor of inductance **L**.

Q22   3

The electric field components on cube of side length 0.1m are

$E_x = 400x \, \hat{\imath} \, N/C$, $E_y=0$, $E_z=0$

Calculate the flux through cube and net charge inside the cube.

Q23   Derive the expression for electric potential due to a dipole at any point   3
at a distance of r from it. Also write the vector form of potential due to
dipole at any point.

Q24   Two cells of different emf (e_1 and e_2) and different internal resistances   3
(r_1 and r_2) are connected in parallel to one another, Then find the
expression for equivalent emf and equivalent internal resistance.

OR

Derive the condition of balanced Wheatstone bridge using Kirchoff's
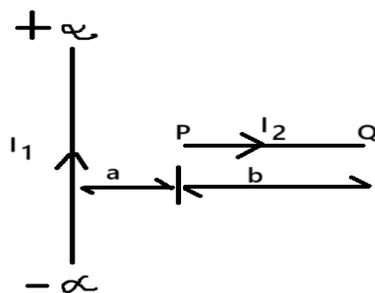law.

Q25   Two wires are made of tinned copper of identical cross section (10^{-6} 3
m^2) and length 10cm and 15 cm respectively. Prove that fuses melt for
same value of current in each case.

Q26   (a)   3

Find magnetic force acting on the wire PQ.

(b)Write the dimension of magnetic flux.

Q27   To know the resistance G of the galvanometer by half deflection   3
method a battery of emf E volts and a resistance R is used to deflect
the galvanometer by angle θ.If the shunt of resistance S is needed to
get half deflection, then find the resistance of the galvanometer.

Q28   A coil when connected across a 10-volt dc supply draw a current of   3
       2A. When connected to 10V-50Hz ac supply, the same coil draws
       current of 1 Amp. Explain why it draws less current in second case.
       Hence determine the coefficient of self-inductance of the coil. (Take
       $\pi = 3$ and $\frac{1}{\sqrt{3}} = 0.577$)

SECTION:D

Q29   **Whenever there is a change in magnetic flux linked with a coil,**   4
       consequently a current is induced in the coil however it last as
       long as the magnetic flux is changing.
       The magnitude of induced EMF is directly proportional to the
       rate of change of magnetic flux.
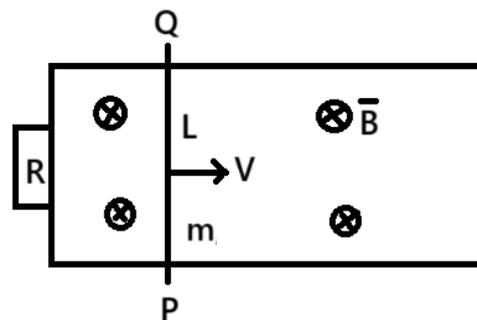
       Choose the correct option:
       (a)In the above diagram emf developed across P and Q is
       (i)e=BLV   (ii)e=B^2LV   (iii)e=BL^2V (d)e=B^2L^2V
       (b) Force required to move the wire with a constant velocity is:
       (i) F=B^2L^2V/R   (ii)F=B^2LV/R   (iii)F=BLV^2/R   (iv) F=B^2L^2V/R^2
       (c) Current developed in the circuit is:
       (i)i=BLV/R   (ii)i=B^2LV/R   (iii)i=B^2LV/R (iv)i=BLV^2/R
       (d) which of the statements regarding potential is true over here:
       (i)V_p>V_Q (ii) $V_{p=}V_Q$ (iii) $V_{p<}V_Q$ (iv)can not be predicted

Q30   **Moving charges experiences force placed in magnetic field.**
        Current carrying wire also placed in magnetic field experiences
        force. Magnetic field cannot do work on moving charges, it can
        only change the direction.
        (a)   If acceleration of a charged particle in magnetic field   2
              B=2$\hat{\imath}$+a$\hat{\jmath}$ + $\hat{k}$ is -5$\hat{\imath}$+3$\hat{\jmath}$+$a^2\hat{k}$, then find possible values of a.
        (b)   An electron, a proton and a deuteron move in a magnetic field   1
              with same momentum perpendicularly to field. Then find
              ratio of radii of their circular path.
        (c)   Write the dimension of magnetic permeability.   1

Answer either a and b or c and d

Q31
.
(a)Show that the $1/r^2$ dependence of electric field of a point charge is   5
consistent with the concept of electric field lines. (b)Two pith balls are
having a charge of +3q and +2q are placed at a distance of **a** from each
other. For what value of charge is to be transferred from first ball to
second, such that force between the balls will be maximum?

OR

(c)Derive the expression of energy density in an electric field.
(d)An electric dipole is placed with its axis making angle of $30°$ to
uniform electric field. It experiences a torque of $10\sqrt{3}$N-m. Then
calculate the potential energy of dipole.

Q32
.
(a) Two different capacitors having capacitance of c_1 and c_2 are   5
charged to potential difference of v_1 and v_2 are joined together by a
wire, show that there is always a loss of energy
(b)Prove that potential energy of a dipole is given by $U= -pE\cos\theta$
OR
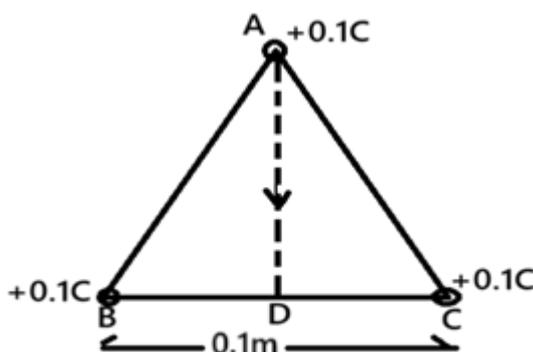
(c)Three charges 0.1 C each are placed the corners of an equilateral
triangle as shown in the above figure. If the energy is supplied at a rate
of 1KW, how many seconds will be required to move the charge from
A to D, where D is the mid-point of BC. Each side has length of 0.1m
(d) Derive the expression for potential due to a negative charge (-Q)
 at a distance of small r from it.

Q33.   (a)In order to make the resistance of a wire 4 times the original value,   5
a **fraction of the length** was stretched uniformly till the entire length
becomes 1.5 times the original length. Then calculate the fraction of
length that was stretched.

(b)Prove that $I=neAV_d$, where terms have usual meaning.

<div align="center">OR</div>

(c)Derive the **vector** form of **Ohm's law**.

(d)A galvanometer gives full scale deflection with 0.006Amp current.
By connecting it to 4990 Ohm resistance, it can be converted to into a
voltmeter of range 0-30 volt. If it is connected to an ammeter of
resistance 2n/249 Ohm resistance, it becomes an ammeter of range
0-1.5A. What is the value of this n?

<div align="center">===================================</div>

Name _____Sec ____Roll No._____

<div align="right">

CODE: B

</div>

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BURNPUR RIVERSIDE SCHOOL, BURNPUR
HALF - YEARLY EXAMINATION : [2025 – 2026]
CLASS - XII
PHYSICS

</div>

Time: 3 Hrs.   **Maximum Marks: 70**

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General Instructions:

(1) There are 33 questions in all. All questions are compulsory.

(2) This question paper has five sections: Section A, Section B, Section C, Section D and Section E.

(3) All the sections are compulsory.

(4) Section A contains sixteen questions, twelve MCQ and four Assertion Reasoning based of 1 mark each, Section B contains five questions of two marks each, Section C contains seven questions of three marks each, Section D contains two case study based questions of four marks each and Section E contains three long answer questions of five marks each.

(5) There is no overall choice. However, an internal choice has been provided in one question in Section B, one question in Section C and all three questions in Section E. You have to attempt only one of the choices in such questions.

(6) Use of calculators is not allowed.

==

<div align="center">

SECTION : A

</div>

1. It is required to hold equal charges q in equilibrium at the corners of a square. What charge when placed at the center of the square will do this?   1

    A. $\frac{-q}{2}(1+2\sqrt{2})$

    B. $\frac{q}{2}(1+2\sqrt{2})$

    C. $\frac{q}{4}(1+2\sqrt{2})$

    D. $\frac{-q}{4}(1+2\sqrt{2})$

2. Electric dipole moment $\vec{p}=p\hat{\imath}$ is kept at a point (x,y) in an electric field $\vec{E} =4xy^2\hat{\imath} + 4x^2y\hat{\jmath}$. Find the force on the dipole.   1

    A. $4py^2$
    B. $4py(y^2+2x^2)^{1/2}$
    C. $4py^2 + 8pxy$
    D. $4py(y^2 + 4x^2)^{1/2}$

3. Find V_{ab} in an electric field $\vec{E} = (2\hat{\imath} + 3\hat{\jmath} + 4\hat{k})$ N/C where $\vec{r}_a = (\hat{\imath} - 2\hat{\jmath} + \hat{k})$m and $\vec{r}_b = (2\hat{\imath} +\hat{\jmath} - 2\hat{k})$m   1

    A. +1V
    B. -1V
    C. zero
    D. 23V

4. Three charges +2q, -q and –q lie at vertices of a triangle. The value of E and V at centroid of triangle will be   1

    A. $E\neq0$ and $V \neq0$
    B. E=0 and V=0
    C. $E\neq0$ and V=0
    D. E=0 and $V \neq0$

5. Resistance 1Ω, 2Ω and 3Ω are connected to form   1

a triangle. If a 1.5V cell of negligible internal resistance is connected across 3Ω resistor , the current flowing through this resistance will be

A. 0.25A
B. 0.5A
C. 1.0A
D. 1.5A

6. Resistances in the two gaps of a meter bridge are 10Ω and 30Ω respectively. If resistances are interchanged the balance point shifts by: 1

A. 33.3cm
B. 66.67cm
C. 25cm
D. 50cm

7. Two concentric and coplanar circular loops P and Q have their radii in the ratio 2:3. Loop Q carries a current of 9A in anticlockwise direction. For the magnetic field to be zero at the common center, loop P must carry   1

A. 3A in clockwise direction
B. 9A in clockwise direction
C. 6A in clockwise direction
D. 6A in anticlockwise direction

8. A particle having charge q and mass m starts moving from the origin under the action of electric field $\vec{E}=E_0\hat{i}$ and $\vec{B}=B_0\hat{i}$ with a velocity $\vec{v}=v_0\hat{j}$. The speed of the particle will become $\sqrt{5}v_0/2$ after a time.   1

A. mv_0/qE
B. $mv_0/2qE$
C. $\sqrt{3}mv_0/2qE$
D. $\sqrt{5}mv_0/2qE$

9. In which type of material the magnetic   1

susceptibility does not depend on temperature?
A. Diamagnetic
B. Paramagnetic
C. Ferromagnetic
D. Ferrite

10   A bar magnet of magnetic moment $5.0 Am^2$ has   1
poles 20cm apart. Calculate the pole strength.
A. 20Am
B. 25Am
C. 30Am
D. 35Am

11.   A magnetic field $2x10^{-2}T$ acts at right angle to a   1
coil of area 100 cm^2 with 50 turns. The average
emf induced in the coil is 0.1V, when it is
removed from the field in time t. The value of t
is:
A. 0.01s
B. 0.5s
C. 0.1s
D. 1s

12.   The magnetic flux through a coil perpendicular to   1
its plane is varying according to the relation $\phi =$
$(5t^3+4t^2+2t-5)$Wb. If the resistance of the coil is
5Ω, then the induced current through the coil at
t=2s will be
A. 15.6A
B. 16.6A
C. 17.6A
D. 18.6A

For Questions 13 to 16, two statements are given

–one labelled Assertion (A) and other labelled Reason (R). Select the correct answer to these questions from the options as given below.

A) If both Assertion and Reason are true and Reason is correct explanation of Assertion.

B) If both Assertion and Reason are true but Reason is not the correct explanation of Assertion.

C) If Assertion is true but Reason is false.

D) If both Assertion and Reason are false.

13. **Assertion (A):** The bob of a simple pendulum is kept in an horizontal electric field, its period of oscillation remain same.

   Reason (R): If the bob is charged and kept in horizontal electric field, then the time period will decrease.

   1

14. **Assertion (A):** If a dielectric is placed in external field, then field inside dielectric will be less than applied field

   Reason (R): Electric field will induce dipole moment opposite to field direction.

   1

15. **Assertion (A):** The value of temperature coefficient of resistance is positive for metals.

   Reason (R): The temperature coefficient of resistance is also positive for insulators.

   1

16. **Assertion (A):** If a proton and an α particle enter a uniform magnetic field perpendicular with the same speed, the time period of revolution of α particle is double that of proton.

   Reason (R): In a magnetic field, the period of revolution of a charged particle is directly proportional to the mass of the particle and is inversely proportional to the charge of the particle.

   1

SECTION : B

17.	Three charges of equal magnitude q are placed at the vertices of an equilateral triangle of side l. How can the system of charges be in equilibrium?	2
18.	The figure shows two points A and B separated by 4cm along the lines of a uniform electric field E=500V/m. Find $V_A - V_B$.	2
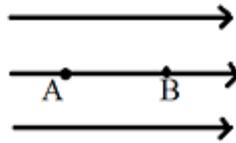
|		
19.	A coil of N turns and radius R carries a current I. It is unwound and rewound to make another coil of radius R/2, current remaining the same. Calculate the ratio of the magnetic moments of the new coil and the original coil.	2
20 (I)	A coil of mean area 500cm^2 and having 1000 turns is held perpendicular to a uniform field of 0.4 gauss. The coil is turned through 180^0 in 1/10 second. Calculate the average induced emf.	2

OR

20(II)

i *increasing*
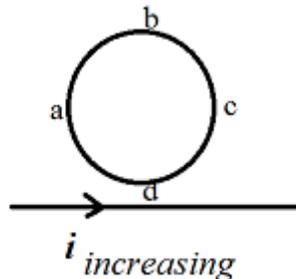
Determine the direction of induced current in the loop abcd. Give proper justification to support your answer.

21(I)	A sinusoidal emf is applied to a circuit containing a capacitor only. Show that the current leads the voltage by $\pi/2$ radian.	2

OR

21(II)	A sinusoidal emf is applied to a circuit containing an inductor only. Show that the current lags the voltage by $\pi/2$ radian.	

SECTION : C

22.	An early model of an atom considered it to have a positively charged point nucleus of charge Ze surrounded by a uniform density of negative charge up to a radius R. The atom as a whole is electrically neutral. For this model what is the electric field at a distance R from the nucleus?	3
23.	Deduce the expression for the capacitance of a parallel plate capacitor with a dielectric slab introduced between the plates. Assume the slab thickness less than the plate separation.	3
24.	A cylindrical wire has length l and area of cross section A. The conductivity of wire material changes with distance from left end as $\sigma=\sigma_0\dfrac{l}{x}$ where σ_0 is a constant. Calculate the electric field inside the conductor as a function of x, when a battery of emf V is connected across its ends.	3
25.	Two cells of different emfs and internal resistances are connected in parallel with one another. Find the expression for the equivalent emf and equivalent internal resistance of the combination.	3
26.	A straight thick long wire of uniform cross section of radius 'a' is carrying a steady current I. Use Ampere's circuital law to obtain a relation showing the variation of magnetic field (B) inside and outside the wire with distance r,($r\leq a$) and ($r>a$) of the field point from the center of its cross section.	3
27(I)	Derive an expression for self-inductance of a long	3

solenoid.

<div align="center">OR</div>

27(II)   Two concentric circular coils, one of radius r and other of radius R are placed coaxially with their centers coinciding. For R>>>r, derive an expression for the mutual inductance of the arrangement.

28.   Using phasor diagram, derive an expression for the impedance of series LCR circuit.   3

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SECTION-D
Case Study Based Questions
</div>

Read the following paragraph and answer the questions that follow.

29.   The Biot-Savart Law describes the magnetic field generated by a steady electric current. It's a fundamental law in magnetostatics, similar to Coulomb's law in electrostatics. The law states that the magnetic field at a point due to a small current element is directly proportional to the current, the length of the element, and the sine of the angle between the element and the line connecting it to the observation point. It is also inversely proportional to the square of the distance between the element and the point.   1 mark each

(I)   Biot Savart law indicates that the moving electrons with (velocity v) produce a magnetic field B such that
(A) B is perpendicular to v
(B) B is parallel to v
(C) it obeys inverse cube law
(D) it is along the line joining the electon and point of observation

(II)   A straight conducting rod of length l and mass m

is suspended in a horizontal plane by a pair of flexible strings in a magnetic field of magnitude B. To remove the tension in the supporting strings, the magnitude of current in the wire is

(A) $\frac{mgB}{l}$

(B) $\frac{mgl}{B}$

(C) $\frac{mg}{lB}$

(D) $\frac{mg}{l}$

(III) A current of 5A is flowing in a wire of length 1.5cm. A force of 7.5 mN acts on it when it is placed in a uniform magnetic field of 0.2T. The angle between the magnetic field and the direction of the current is

(A) 30^0

(B) 45^0

(C) 60^0

(D) 90^0

(IV) Beams of electrons and protons move parallel to each other in the same direction . They

(A) attract each other

(B) repel each other

(C) neither attract nor repel

(D) force of attraction or repulsion depends upon speed of beam.

30. Faraday's laws of electromagnetic induction describe how a changing magnetic field can induce a voltage (electromotive force) in a conductor, and how the magnitude of this induced voltage is related to the rate of change of the magnetic flux. The first law states that a changing magnetic field induces an EMF, and the second law relates the magnitude of the induced EMF to the rate of change of magnetic flux.

(I) A wire of length 0.3m moves with a speed of   2

20m/s perpendicular to the magnetic field of induction $1Wb/m^2$. Calculate the induced emf.

(II) A circular loop of radius r, carrying a current I lies in YZ plane with its center at the origin. Find the net magnetic flux through the loop.   1

(III) Plot a graph showing the variation of induced emf with the rate of change of current flowing through the coil.   1

SECTION : E

31(I) (A) The electric field in a region is given by $\vec{E} = (E_0x/b)\hat{\imath}$. Find the charge contained in the cubical volume bounded by surface x=0, x=a, y=0, y=a, z=0 and z=a. Take $E_0 = 5x10^3$N/C, a=1cm and b=2cm.   5

(B) Show that the $1/r^2$ dependence of electric field of a point charge is consistent with the concept of the electric field lines.

OR

31(II) (A) Derive an expression for the electric field at any point on the equatorial line of an electric dipole.

(B) Derive an expression for the torque on an electric dipole placed in a uniform electric field.

32(I) (A) Derive an expression for electric potential at any general point at a distance r from the center of the dipole.   5

(B) Twenty seven drops of same size are charged at 220V each. They combine to form a bigger drop. Calculate the potential of the bigger drop.

OR

(A) Sketch electric field lines and equipotential surfaces for a point positive charge and for an electric dipole

(B) Two parallel plates separated by 2mm of air have a capacitance of $3x10^{-14}$F and are connected to a potential of 200V. Then without touching the

plates, they are moved apart till the separation is 6mm.

(a) What is the potential difference between the plates?

(b) What is the change in energy?

33(I)　4 cells of identical emf ε, internal resistance r, are connected in series to a variable resistor. The following graph shows the variation of terminal voltage of the combination with the output current.　5
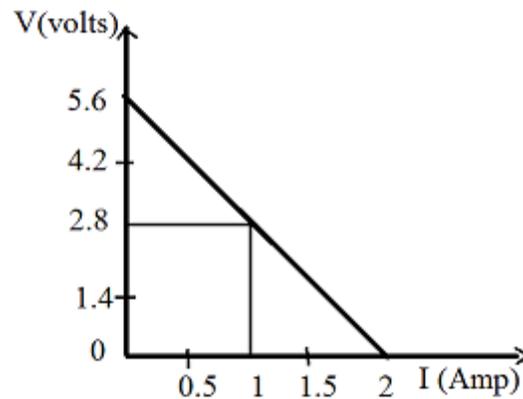
(A) What is the emf of each cell?
(B) For what current from the cell, does the maximum power dissipation occur in the circuit?
(C) Calculate the internal resistance of each cell.

OR

33(II)　Derive the relation between electric current and drift velocity. Hence deduce Ohm's law. Also write the expression for resistivity in terms of number density of free electrons and relaxation time.

===

Name _____Sec ____Roll No._____

CODE: A

BURNPUR RIVERSIDE SCHOOL, BURNPUR
HALF-YEARLY EXAMINATION: [2025-2026]
CHEMISTRY
CLASS XII
Time: 3 Hrs. **Maximum Marks: 70**
===

General Instructions:

(i)   This question paper consists of 33 questions in 5 sections.

(ii) All questions are compulsory. However, an internal choice is provided in some questions. A student is expected to attempt only one of these questions.

(iii) Section A consists of 16 objective type questions carrying 01 mark each.

(iv) Section B consists of 5 Very Short questions carrying 02 marks each. Answer to these questions should be in the range of 30 to 50 words.

(v)   Section C consists of 7 Short Answer type questions carrying 03 marks each. Answer to these questions should be in the range of 50 to 80 words.

(vi) Section D consists of 2 Source based/ Case based unit of assessment of 04 marks with sub parts.

(vii) Section E consists of 3 Long Answer type questions carrying 05 marks each. Answer to these questions should be in the range of 80 to 120 words.

===

SECTION – A

Select and write the most appropriate option out of the four options given for each of the questions 1 -12. There is no negative mark for incorrect response.

1.   A compound undergoes complete tetramerization in a given   1
     organic solvent. The Van't Hoff factor is —

     (a)   4.0
     (b)   0.25
     (c)   0.125
     (d)   2.0

2.   Pure water boils at 373.15 K and nitric acid boils at 359.15 K.   1
     An azeotropic mixture of H_2O and HNO_3 boils at 393.55 K.
     Distilling the azeotropic mixture will cause:
     (a)   Pure nitric acid to distil over first
     (b)   Pure water to distil over first
     (c)   One of them to distil over with a small amount of the other
     (d)   Both of them distil over in the same composition as that of the
           mixture being distilled

3.   Which of the following is a colligative property? (1)   1
     (a)   Surface tension
     (b)   Viscosity
     (c)   Osmotic pressure
     (d)   Optical activity

4.   The reaction is spontaneous if the cell potential is –   1
     (a)   Positive
     (b)   Negative
     (c)   Zero
     (d)   Infinite

5.   The ion having highest conductance in aqueous solution: 1
     (a) Li^+
     (b) Na^+
     (c) K^+
     (d) Cs^+

6.   Corrosion of iron is the process: 1
     (a)   Decomposition
     (b)   Photochemical
     (c)   Electrochemical
     (d)   Reduction

7.   The number of molecules that react with each other in an   1
      elementary reaction is a measure of the –
      (a)   Activation energy of the reaction
      (b)   Order of the reaction
      (c)   Stoichiometry of the reaction
      (d)   Molecularity of the reaction

8.   In a reaction the initial concentration of the reactants increases   1
      four-fold and the rate becomes sixteen times its initial value.
      The order of the reaction is-
      (a)   2.0
      (b)   3.5
      (c)   1.5
      (d)   2.5

9.   Reaction of 1-phenyl-2-chloro propane with alcoholic KOH   1
      gives mainly:
      (a)   1-phenyl propene
      (b)   3- phenylpropene
      (c)   1-phenyl propan-3-ol
      (d)   1-phenyl propane

10.   An S_N^1 reaction of an enantiomerically pure chiral alkyl halide   1
      gives a product:
      (a)   With retention of configuration
      (b)   With inversion of configuration
      (c)   With racemisation
      (d)   With partial racemisation

11.   Which of the following alkenes on acid catalysed hydrolysis   1
      gives a tertiary alcohol?
      (a)   2-butene
      (b)   Propene
      (c)   2-methyl propene
      (d)   1-butene

12.   Which of the following alcohols will not undergo oxidation?   1
      (a)   Butanol
      (b)   Butan-2-ol
      (c)   2-methyl butan-2-ol
      (d)   3-methyl butan-2-ol

Question No. 13 to 16 consists of two statements – Assertion (A) and Reason (R). Answer the questions selecting the appropriate options given below:
  (a) Both A and R are true, and R is the correct explanation of A.
  (b) Both A and R are true, and R is not the correct explanation of A.
  (c) A is true but R is false
  (d) A is false but R is true

13. **Assertion:** Rate constants determined from Arrhenius equation are fairly accurate for simple as well as complex molecules. **Reason:** Reactant molecules undergo chemical change irrespective of their orientation during collision   1

14. **Assertion:** S_N^1 reaction is a first order reaction.   1
Reason: Reaction proceeds in two steps

15. **Assertion:** Dichlorocarbene is a strong electrophile.   1
Reason: In dichlorocarbene, the carbon atom has a sextet of electrons.

16. **Assertion:** Dry cell does not have a long life.   1
Reason: During use the zinc container is consumed and holes start appearing in it.

SECTION – B

17. <u>**Attempt either option A or B**</u>   2

(A) What is the mole fraction of water in 2.5 M aqueous solution of a compound? (Given molar mass of H_2O = 18 g)

OR

(B) State Raoult's law for a solution containing a non-volatile solute. What type of deviation from Raoult's law is shown by a solution of chloroform and acetone and why?

18. Based on solute-solvent interactions, arrange the following in order of increasing solubility in octane and explain.   2
Cyclohexane, KCl, CH_3OH, CH_3CN

19. At 310K, osmotic pressure of blood is 8.21 atm. How much glucose should be dissolved in 2L solution for an injection which is isotonic with blood? (Given, molar mass of glucose = 180 g, R= 0.0821lit atm mol^{-1}K^{-1})   2

20.	What is the effect of temperature and catalyst on rate and rate constant of the reaction?	2
21.	Predict the order of reactivity of the following compounds in S_N^1 and S_N^2 reactions: $C_6H_5CH_2Br$, $C_6H_5CH(C_6H_5)Br$, $C_6H_5CH(CH_3)Br$, $C_6H_5C(CH_3)(C_6H_5)Br$.	2

SECTION-C

22.	Consider the following first order thermal decomposition of SO_2Cl_2 at a certain volume: $SO_2Cl_2(g) \rightarrow SO_2(g) + Cl_2(g)$ If the total pressure of the gases is found to be 200 torr after 10 seconds and 300 torr upon the complete decomposition of SO_2Cl_2, calculate the rate constant. (Given: $\log3 = 0.4771$, $\log2 = 0.3010$)	3
23.	The resistance of M/2 solution of an electrolyte was found to be 25 ohm. Calculate the molar conductivity of the solution if the electrodes in the cell are 2 cm apart and have an area of 4 cm².	3
24.	Write electrolyte, cathode and anode in lead storage battery.	3
25. (I)	What happens when blood cells are placed in pure water?	3
(II)	Two liquids X and Y boil at 110°C and 130°C respectively. Which one has higher vapour pressure at 50°C and why?	
26	**Complete the following:** $C_6H_5\text{-}OH \xrightarrow[\Delta]{Zn} > A \xrightarrow[H2SO4]{HNO3} > B \xrightarrow{Br2} C \xrightarrow{H2/Pt} D \xrightarrow{HNO2/HCl} E \xrightarrow{H3O+} F$	3
27. (I)	Give one chemical test to distinguish between 1-Propanol and 2-Methyl-2-Propanol.	3
(II)	How will you convert Ethanol to Isopropyl alcohol?	
28.	Write the structures of the major organic product in each of the following reactions: (Any three)	3
(I)	$CH_3CH_2CH_2Cl + NaI \xrightarrow[\Delta]{Acetone} >$	
(II)	$C_6H_5ONa + C_2H_5Cl \rightarrow$	

(III) $CH_3CH_2CH = CH_2 + HBr \xrightarrow{Peroxide}$

(IV) $CH_3CH_2CH_2OH + SOCl_2 \rightarrow$
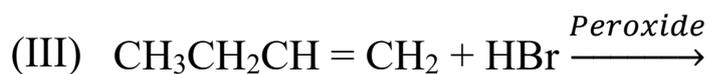
SECTION-D

29.   In phenols, the reactions that take place on the aromatic ring are   4 electrophilic substitution reactions. The -OH group attached to the benzene ring activates it towards electrophilic substitution.

(I) Name the reagent used to convert bromoethane to ethoxyethane or diethyl ether.

(II) Why alcohol cannot be used as solvent for Grignard reagent?

OR

Ethers possess dipole moment even if the alkyl groups present are identical. Explain.

(III) Write a short note on Reimer-Tiemann reaction.

30.   Halogen atom directly attached to the benzene ring is less   4 reactive towards the nucleophilic substitution reactions. 2,4-dinitrochlorobenzene is prepared by the nitration of chlorobenzene with nitrating mixture at high temperature. For the neutralization of the excess of the acid, KOH, NaOH or $NaHCO_3$ may be used.

(I) Complete the following reactions:

a) $C_6H_5N_2Cl + KI \rightarrow$

b) $C_6H_5N_2Cl \xrightarrow{Cu/HCl}$
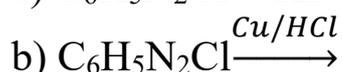
OR

Out of $C_6H_5CH_2Cl$ and $C_6H_5CHClC_6H_5$, which is more easily hydrolysed by aq. KOH and why?

(II) What happens when 2,4-dinitrochlorobenzene is treated with aqueous NaOH?

(III) In the alkylation of bromobenzene (Friedel-Crafts reaction), nitrobenzene is used as solvent but not benzene. Why?

31.   **Attempt either A or B**   5

(A)   Answer the following questions:
I. Out of chlorobenzene and cyclohexyl chloride, which one is more reactive towards nucleophilic substitution reaction and why?
II. Write down the structural formula of DDT.
III. Why is chloroform kept in dark-coloured bottles?
IV. Identify the centre of chirality in the following compound – 3-Bromo pent-1-ene.
V. What is known as racemic mixture?

OR

(B)   Answer the following questions:
I. Write the structure of 1-chloro-4-ethyl cyclohexane.
II. Why Grignard reagents should be prepared under anhydrous conditions?
III. Write the IUPAC name of the product obtained by mono chlorination of neopentane.
IV. Write one stereochemical difference between S_N^1 and S_N^2.
V. Give one example of a vinylic halide.

32.   **Attempt either A or B**   5

(A)   Answer the following questions:
I. For the reaction: $H_2 + Cl_2 \xrightarrow{h\upsilon} 2HCl$,
Write the order and molecularity of this reaction.
II. For a reaction $C_2H_4(g) + H_2(g) \rightarrow C_2H_6(g)$
Rate $= 5.5 \times 10^{-14}$ s^{-1}, calculate its half-life.
III. What is the unit of frequency factor A for first order reaction?
IV. Give mathematical expression for a zero-order reaction.
V. Give one example of pseudo first order reaction.

OR

(B)   Answer the following questions:

I. The rate constant of a first order reaction increases from 2×10^{-2} to 6×10^{-2} when the temperature changes from 300K to 320K. Calculate the energy of activation.

(Given: log 2 = 0.3010, log 3 = 0.4771, log 4 = 0.602, R=8.314Jk^{-1}mol^{-1})

II. For a given reaction, rate $\propto$ [A][B]$^{0.5}$. Is this reaction elementary? Explain.

33. **Attempt either A or B** 5

(A) Answer the following questions:

I. Consider the cell composed of two half-cells:

Cu(S)|Cu^{2+} (aq), Ag(S)|Ag$^+$(aq)

a) Calculate the standard cell potential.

b) Calculate the cell potential when [Cu^{2+}] = 2M and [Ag+] = 1M.

(Given: E°(Cu^{2+}/Cu) = +0.34V, E°(Ag$^+$/Ag) = +0.80V)

(Given: log 2 = 0.3010, log 3 = 0.4771)

II. Write two advantages of H$_2$ – O$_2$ fuel cell over ordinary cell.

OR

(B) Answer the following questions:

I. A galvanic cell is prepared but there is no flow of current. What may be the reason?

II. What is the value of Gibbs free energy change for an electrolytic cell?

III. State the relationship amongst cell constant, resistance of the solution and conductivity of the solution.

IV. Which cell is used in hearing aids?

V. Define limiting molar conductivity.

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Name _____Sec ____Roll No._____

<div align="right">CODE: B</div>

BURNPUR RIVERSIDE SCHOOL, BURNPUR
HALF-YEARLY EXAMINATION: [2025-2026]
CHEMISTRY
CLASS: XII

Time: 3 Hrs.   **Maximum Marks: 70**
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GENERAL INSTRUCTIONS:-

1. *There are 33 questions in this question paper with internal choice.*
2. *SECTION-A consists of 16 multiple-choice questions carrying 1 mark each.*
3. *SECTION -B consists of 5 short answer questions carrying 2 marks each.*
4. *SECTION -C consists of 7 short answer questions carrying 3 marks each.*
5. *SECTION -D consists of 2 case-based questions carrying 4 marks each .*
6. *SECTION -E consists of 3 long answer questions carrying 5 marks each.*
7. *All questions are compulsory.*
8. *Use of log tables and calculators is not allowed.*

===

SECTION –A

1   An azeotropic solution of two liquids has a boiling point higher   1
     than either of the two when it :

     a) Shows a negative deviation from Raoult's law.

     b) Shows a positive deviation from Raoult's law.

     c) Is saturated.

     d) Shows no deviation from Raoult's law.

2   Naphthalene is soluble in ether or benzene because :   1

     a) Dipole-dipole interaction is equivalent.
     b) London forces are equivalent.
     c) Hydrogen bond formation.
     d) Ionic interaction are equivalent.

3   The freezing point of a 0.2 molal solution of a non-electrolyte in   1
water is : (K_f for water $= 1.86$ K Kg mol^{-1})

     a) $- 0.372°C$
     b) $- 1.86 °C$
     c) $+ 0.372 °C$
     d) $+ 1.86 °C$

4   What is the number of electrons required to deposit 1g atom of Al   1
(atomic mass $= 27$) from a solution of $AlCl_3$?

     a) 1 mol
     b) 2 mol
     c) 3 mol
     d) 4 mol

5   The molar conductivity of NaCl, HCl and CH_3COONa at infinite   1
dilution are 126.45 , 426.16 and 91 S cm^2 mol^{-1} respectively. The
molar conductivity of CH_3COOH at infinite dilution is :

     a) 201.28 S cm^2 mol^{-1}
     b) 698.28 S cm^2 mol^{-1}
     c) 390.71 S cm^2 mol^{-1}
     d) 540.48 S cm^2 mol^{-1}

6   A 38% solution of sulphuric acid is used as an electrolyte in _____   1
battery.

     a) Lead storage
     b) Dry cell
     c) Fuel cell
     d) Mercury cell

7   The rate constant of a reaction has same units as the rate of   1
     reaction. What is the order of the reaction ?

     a) 3   b) 2   c) 1   d) 0

8   The rate of reaction increases with increase of temperature   1
     because :

     a) An increase in the number of effective collisions.
     b) An increase in the number of collisions.
     c) Lowering of threshold energy.
     d) Activation energy is lowered.

9   The IUPAC name of isobutyl bromide is :   1

     a) 1-Bromo-3-methylbutane.
     b) 3-Bromo-2-methylbutane
     c) 2-Bromo-2-methylbutane
     d) 1-Bromo-2-methylbutane

10   Which of the following alkyl halide is most reactive towards   1
     nucleophilic substitution reaction ?

     a) C_2H_5Br
     b) C_2H_5Cl
     c) C_2H_5F
     d) C_2H_5I

11   Cyclohexanol is a :   1

     a) Phenol

     b) Primary alcohol

     c) Secondary alcohol

     d) Tertiary alcohol

12 Phenol on being heated with concentrated H_2SO_4 and then with   1
    concentrated HNO_3 gives :

    a) o-nitrophenol
    b) 2,4,6-trinitrophenol
    c) p-nitrophenol
    d) m-nitrophenol

    **In the following questions, two statements are given - one
    labelled Assertion (A) and the other labelled Reason (R).
    Select the correct answer to these questions from the codes (a),
    (b), (c) and (d) as given below:
    a) Both A and R are true and R is the correct explanation of A.
    b) Both A and R are true, but R is not the correct explanation
    of A.
    c) A is true but R is false.
    d) A is false but R is true.**

13 **Assertion:** Precipitation of silver chloride occurs instantaneously   1
    by mixing of aqueous solution of silver nitrate and sodium
    chloride.
    Reason: Some reactions such as ionic reactions occurs very fast.

14 **Assertion:** S_N1 reaction follows second order kinetics.   1
    Reason: In S_N2 mechanism, no intermediate is formed.

15 **Assertion:** The C-O bond length in phenol is slightly less than that   1
    in methanol.
    Reason: The C-O bond in phenol has partial double bond
    character due to +R effect.

16 **Assertion:** Daniell cell is an example of galvanic cell.   1
    Reason: Daniell cell converts electrical energy into chemical
    energy.

                            SECTION-B

17 A. Give reason: 2
    Elevation of boiling point of 1 M KCl is nearly double than that
    of 1 M sugar solution.

                              OR

A solution of $CuSO_4$ is electrolysed for 10 minutes with a current of 1.5 amperes. What is the mass of copper deposited at the cathode ?(atomic mass of Cu = 63.5g)

18   Blood cells are isotonic with 0.9 % sodium chloride solution. What happens if we place blood cells in a solution containing :   2
    i)   1.2 % sodium chloride solution.
    ii)   0.4 % sodium chloride solution.

19   If the solubility product of CuS is 6×10^{-16} , calculate the maximum molarity of CuS in aqueous solution.   2

20   With the help of an example explain what is meant by pseudo first order reaction.   2

21   How do you convert the following ?   2
    i)   Prop-1-ene to 1-fluoropropane.
    ii)   Ethanol to propanenitrile

SECTION-C

22   A first order reaction takes 40 minute for 30 % decomposition. Calculate $t_{1/2}$. (log 7 = 0.8451)   3

23   The electrical resistance of a column of 0.05 M KOH solution of length 50 cm and area of cross-section 0.625 cm^2 is 5×10^3 ohm. Calculate its resistivity, conductivity and molar conductivity.   3

24   Which cell was used in Apollo space programme ? Suggest two materials other than hydrogen that can be used as fuels in fuel cell.   3

25   2 g of benzoic acid (C_6H_5COOH) dissolved in 25 g of benzene shows a depression in freezing point equal to 1.62 K. Molal depression constant for benzene is 4.9 K Kg mol^{-1} . What is the percentage association of acid if it forms dimer in solution ?   3

26   Give the structures and IUPAC names of the products expected from the following reactions :   3
    i)   Catalytic reduction of butanal
    ii)   Hydration of propene in the presence of dilute sulphuric acid.

iii) Reaction of propanone with methyl magnesium bromide followed by hydrolysis.

27   Explain the following with an example :   3
        i)   Kolbe's reaction
        ii)   Reimer-Tiemann reaction
        iii)   Williamson ether synthesis.

28   Among the isomeric alkanes of molecular formula C_5H_{12} , identify   3
the one that on photochemical chlorination yields :
        i)   A single monochloride
        ii)   Three isomeric monochlorides
        iii)   Four isomeric monochlorides

SECTION-D

29   **Read the passage given below and answer the following**   4
questions :
In phenols, the reactions that takes place on the aromatic ring are electrophilic substitution reactions. The -OH group attached to the benzene ring activates it towards electroplilic substitution reaction. Also, it directs the incoming group to ortho and para positions. The alkoxy group is also ortho, para directing and activates the aromatic ring towards electrophilic substitution.

   I.   What type of group attached to a carbon in benzene ring activates benzene towards electrophilic substitution reaction ?
  II.   Due to which effect of -OH group, electron density on benzene ring increases and it activates the benzene ring towards electrophilic substitution reaction ?

OR

What is the hybridization of carbon atom to which oxygen is attached in phenol ?
III.   While separating a mixture of ortho and para-nitrophenols by steam distillation, name the isomer which will be steam volatile. Give reason.

30   **Read the passage given below and answer the following**   4
      questions :
      Nucleophilic substitution reaction of haloalkane can be conducted
      according to both S_N1 and S_N2 mechanisms. However, which
      mechanism it is based on is related to such factors as the structure
      of haloalkane, and properties of leaving group, nucleophilic
      reagent and solvent.

      I.   Give an example of ambident nucleophile.
                                    OR
            Identify 'X' in the reaction :

            $CH_3\text{-}CH_2\text{-}Br + X ---\rightarrow CH_3CH_2NC + AgBr$
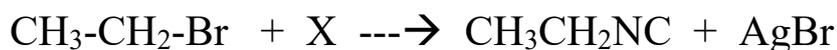
      II.   Which compound will react faster in S_N2 reaction with OH^- ?
            $(CH_3)_3CCl$ or CH_3Cl
      III. How do polar solvents help in the first step in S_N1
            mechanism ?

                              SECTION-E
31   A. Write the structures of the following compounds :   5
         i)   2-Chloro-3-methylpentane
         ii)   1-Chloro-4-ethylcyclohexane
         iii) 4-Tert-butyl-3-iodoheptane
         iv)   1,4-Dibromobut-2-ene
         v)   1-Bromo-4-sec-butyl-2-methylbenzene
                                    OR
      B. Name the following halides according to IUPAC system :
       I. $(CH_3)_2CHCH(Cl)CH_3$
       II. $CH_3CH_2CH(CH_3)CH(C_2H_5)Cl$
       III. $(CH_3)_3CCH_2CH(Br)C_6H_5$
       IV. $CH_3CH=CHC(Br)(CH_3)_2$
       V. $p\text{-}ClC_6H_4CH_2CH(CH_3)_2$

32   A. The rate constant of a first order reaction increases from $4 \times 10^-$ 5
      ^{2} to 8×10^{-2} when the temperature changes from 27 °C to 37 °C.
      Calculate the energy of activation. ($\log2 = 0.301$, $\log3 = 0.4771$,
      $\log4 = 0.6021$)
                                    OR

B. The rate constant for the first order decomposition of N_2O_5 is given by the following equation :

$k = (2.5 \times 10^{14} \text{ s}^{-1}) \, e^{-25000 \text{ K/T}}$. Calculate E_a for the reaction and rate constant if its half-life period be 300 minutes.

33 A. Predict the products of electrolysis in each of the following : 5
  i) An aqueous solution of $AgNO_3$ with silver electrodes
  ii) An aqueous solution of $AgNO_3$ with platinum electrodes
  iii) A dilute solution of H_2SO_4 with platinum electrodes
  iv) An aqueous solution of $CuCl_2$ with platinum electrodes
  v) An aqueous solution of NaCl with platinum electrodes

OR

B. For the reaction :
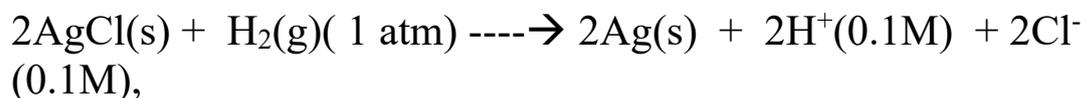
$2AgCl(s) + H_2(g)(1 \text{ atm}) \text{----}\rightarrow 2Ag(s) + 2H^+(0.1M) + 2Cl^-$ (0.1M),
$\Delta G° = - 43600$ J at 25°C. Calculate the e.m.f of the cell.

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CODE: A

BURNPUR RIVERSIDE SCHOOL, BURNPUR
HALF-YEARLY EXAMINATION: [2025-2026]
MATHEMATICS
CLASS: XII

Time: 3 Hrs.   **Maximum Marks: 80**

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General Instructions:

This question paper contains five sections A, B, C, D and E. Each section is compulsory.

Section–A:

It comprises of 20 MCQs of 1 mark each with 2 assertion-reason questions.

Section–B:

It comprises of 5 SA type of questions of 2 marks each.

Section –C:

It comprises of 6 SA type of questions of 3 marks each.

Section-D:

It has 4 LA type question of 5 marks.

Section –E:

It comprises of 4 case- based questions of 4 marks each.

Internal choice is provided in 2 questions in Section - B, 3 question in Section – C and 2 question in Section-D. You have to attempt only one of the alternatives in all such questions.

==

SECTION - A

1.   How many relations are possible in set A such that n(A) = 2?   1
        a. 4   b. 8   c. 16   d. 32

2.   Let R be a relation on set A= {1,2,3,4} defined by R = {(a,b)∈ A×A: 1
        a+b is even}. The number of elements in R is
        a) 8   b) 4   c) 9   d) 10

3.   Let f : R→ R be defined by f(x) = $x^2 + 1$. The pre-images of 17 and -3   1
        are respectively:
        a) {-4, 3}, {-3, -4}   b) {-1, 1}, {-3, 4}
        c) {-4, 4}, {-3, 3}   d) {-4, 4}, not defined

4. If $A = [a_{ij}]$ is a matrix of order 2×2 and $a_{ij} = e^{ix} \sin\left(\frac{\pi}{2}i - jx\right)$, then A^T is :   1

a) $\begin{bmatrix} e^x\cos x & e^x\cos 2x \\ e^{2x}\sin x & e^{2x}\sin 2x \end{bmatrix}$ b) $\begin{bmatrix} e^x\cos x & e^x\cos x \\ e^{2x}\sin 2x & e^{2x}\sin x \end{bmatrix}$

c) $\begin{bmatrix} e^x\cos x & e^{2x}\sin x \\ e^x\cos 2x & e^{2x}\sin 2x \end{bmatrix}$ d) $\begin{bmatrix} e^x\cos x & e^x\cos x \\ e^x\sin x & e^{2x}\sin 2x \end{bmatrix}$

5. If A is a square matrix of order 3 and $|A| = 5$, then $|\text{adj } A| = $?   1

a) 5   b) 25   c) 125   d) $\frac{1}{5}$

6. $A.(\text{adj } A) = \begin{bmatrix} 3 & 0 & 0 \\ 0 & 3 & 0 \\ 0 & 0 & 3 \end{bmatrix}$, then the value of $|A| + |\text{adj } A|$ is equal to   1

a. 12   b. 9   c. 3   d. 27

7. If A and B are non-singular matrices of same order with $\det(A) = 5$ then $\det(B^{-1} AB)^2$ is equal to   1

a) 5   b) 5^2 c) 5^4 d) 5^5

8. Let $A = \begin{bmatrix} 5 & 5\alpha & 0 \\ 0 & \alpha & 5\alpha \\ 0 & 0 & 5 \end{bmatrix}$, if $|A|^2 = 25$, then $|\alpha|$ equals?   1

a. 5^2 b. 1   c. $\frac{1}{5}$ d. 5

9. Find k, if $f(x) = \begin{cases} \frac{kx}{|x|}, & \text{if } x < 0 \\ 3, & \text{if } x \geq 0 \end{cases}$ is continuous at x=0.   1

a. -3   b. 3   c. -1   d. 1

10. If $y = \sin^{-1} x$, then $(1-x^2)y_2$ is equal to :   1

a) xy_1 b) xy c) xy_2 d) x^2

11. If $\sin(xy) = 1$, then $\frac{dy}{dx}$ is equal to   1

a. $\frac{x}{y}$ b. $-\frac{x}{y}$ c. $\frac{y}{x}$ d. $-\frac{y}{x}$

12. If $f'(x) = \sqrt{2x^2 - 1}$ and $y = f(x^2)$, then $\frac{dy}{dx}$ at x=1 is   1

a. 2   b. 1   c. -2   d. 3

13. The value of the expression $2\sin^{-1}\frac{1}{2}$ is   1

a. $\frac{\pi}{3}$ b) $\frac{5\pi}{6}$ c) $\frac{7\pi}{6}$ d) 1

14. The interval in which the function f defined by $f(x) = e^x$ is strictly increasing, is: 1

a. $[1, \infty)$ b. $(-\infty, 0)$ c. $(-\infty, \infty)$ d. $(0, \infty)$

15. $\int \left\{ \frac{1}{\log x} - \frac{1}{(\log x)^2} \right\} dx = ?$ 1

a. $e^x \log x + c$

b. $\frac{e^x}{\log x} + c$

c. $\frac{x}{\log x} + c$

d. $\frac{-1}{\log x} + c$

16. $\int e^x (tanx - \log cosx) dx = ?$ 1

a. $e^x \tan x + c$

b. $e^x \log \cos x + c$

c. $e^x \sec x + c$

d. $-e^x \log\cos x + c$

17. $\int_0^{2\pi} cosec^7 x\, dx = ?$ 1

a. 0 b. 1 c. 4 d. 2π

18. The value of $\tan^{-1} 1 + \cos^{-1}(-\frac{1}{2}) + \sin^{-1}(\frac{-1}{2})$ is 1

a. $\frac{2\pi}{3}$ b. $\frac{3\pi}{4}$ c. $\frac{3\pi}{5}$ d. $\frac{2\pi}{5}$

Each question consists of two statements, namely, Assertion (A) and Reason (R). for selecting the correct answer, use the following code:

a. Both assertion (A) and Reason(R) are true and Reason (R) is a correct explanation of Assertion (A).
b. Both assertion (A) and Reason(R) are true but Reason (R) is not a correct explanation of Assertion (A).
c. Assertion (A) is true and Reason(R) is false.
d. Assertion (A) is false and Reason (R) is true.

19. Assertion (A) : If A and B are two sets having 3 and 5 elements respectively, then the total number of functions that can be defined from A to B is 5^3. 1

Reason (R) : A function from set A to set B relates all elements of set A to all elements of set B.

20. Assertion (A) : the function $f(x) = |x-3|$ is continuous at x=3. 1
Reason (R) : Every polynomial function is continuous at every point.

SECTION - B

21. Let $A = R - \{3\}$ and $B = R - \{1\}$ and f: $A \to B$ such that $f(x) = \frac{x-2}{x-3}$ for all values of $x \in A$. show that f is one-one. 2

OR

Show that f: N→N, defined by

$$f(n) = \begin{cases} \frac{n+1}{2}, & if\ n\ is\ odd \\ \frac{n}{2}, & if\ n\ is\ even \end{cases}$$ is many- one function.

22. Find the value of k, for which the function $f(x)=\begin{cases} kx + 5, if\ x \le 2 \\ x - 1, if\ x > 2 \end{cases}$ is 2

continuous at x=2

23. Differentiate $\sin^{-1}\left(\frac{2x}{1+x^2}\right)$ w.r.t $\cos^{-1}\left(\frac{1-x^2}{1+x^2}\right)$ 2

24. The side of a square is increasing at the rate of 0.2 cm/s. Find the rate 2
of increase of the perimeter of the square.

25. Find : $\int \frac{x^4+1}{x^2+1}\ dx$ 2

OR

Find : $\int \frac{1}{5 - 8x - x^2}\ dx$

SECTION - C

26. Express the matrix A as the sum of a symmetric and a skew-symmetric 3

matrix. Where A = $\begin{pmatrix} 3 & -1 & 0 \\ 2 & 0 & 3 \\ 1 & -1 & 2 \end{pmatrix}$

27. Show that the function $f(x) = \begin{cases} 1 - x, & when\ x < 1 \\ x^2 - 1, & when\ x \ge 1 \end{cases}$ is continuous but 3

not differentiable at x=1.

28. If $-2x^2 - 5xy + y^3 = 76$, then find $\frac{dy}{dx}$ 3

OR

If $y = log\sqrt{\frac{1-cosx}{1+cosx}}$, show that $\frac{dy}{dx} = cosec\ x$.

29. Find the interval on which the function $f(x) = -2x^3 - 9x^2 - 12x + 1$ is 3
strictly increasing .

OR

Find two positive numbers whose sum is 16 and the sum of whose
squares is minimum.

30. Evaluate : $\int \frac{x^3}{1+x^8}\ dx$ 3

OR

Evaluate: $\int \frac{1}{a^2 sin^2 x + b^2 cos^2 x}\ dx$

31. Prove that $\int_0^{\pi/2} \frac{dx}{1+\tan x} = \frac{\pi}{4}$ 3

SECTION - D

32. If $y = x^x$, prove that $\frac{d^2y}{dx^2} - \frac{1}{y}\left(\frac{dy}{dx}\right)^2 - \frac{y}{x} = 0$ 5

33. Show that the rectangle of maximum area that can be inscribed in a circle of radius r is a square of side $r\sqrt{2}$ 5

34. Evaluate : $\int \frac{x^2+1}{x^2-5x+6}dx$ 5

OR

Evaluate : $\int \left\{\log(logx) + \frac{1}{(logx)^2}\right\}dx$

35. Find the area of the smaller area enclosed by the circle $x^2 + y^2 = 4$ and the line $x + y = 2$ 5

OR

Using integration find the area bounded by the parabola $y^2 = 16x$ and its latus rectum

SECTION - E

36. An organization conducted bike days under two different categories- boys and girls. In all, there were 250 participants. Among all of them finally three from category 1 and two from category 2 were selected for the final race. Ravi forms two sets B and G with these participants for his college project.
Let B = {b₁, b₂, b₃}, G = {g₁ , g₂}; where B represents the set of boys selected and G the set of girls who were selected for the final race.
On the basis of the above information answer the following questions.

i) Ravi wishes to form all the relation possible from B to G. How many such relations are possible? 1

ii) Write the smallest equivalence relation on G. 1

iii) Ravi defines a relation from B to B as R₁ ={(b₁, b₂), (b₂, b₁)}. Write the minimum order pairs to be added in R₁ so that it becomes reflexive but not symmetric. 2

OR

iii) Ravi defines a relation from B to B as R₁ ={(b₁, b₂), (b₂, b₁)}. Write the minimum order pairs to be added in R₁ so that it becomes reflexive and symmetric but not transitive.

37. Three schools DPS, BRS and KVS decided to organize a fair for collecting money for helping the flood victims. They sold handmade fans, mats and plates from recycled material at a cost of Rs. 25, Rs. 100 and Rs.50 respectively. The number of articles sold are given as:

School/ Article	DPS	BRS	KVS
Handmade fans	40	25	35
Mats	50	40	50
Plates	20	30	40

Based on the above information, answer the following questions:

a. Find the total amount of money collected by school DPS.   1

b. Find the total amount of money collected by school BRS and KVS.   1

c. Find the total amount of money collected by all three schools.   2

OR

c. Find total number of articles sold by three schools.

38. The relation between the height of the plant (y in cm) with respect to exposure to sunlight is governed by the following equation
$y = 4x - \frac{1}{2}x^2$, where x is the number of days exposed to sunlight.
Answer the following based on the above information.

i) Find rate of growth of the plant with respect to sunlight.   2

ii) What are the number of days it will take for the plant to grow to the maximum height?   2

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Name _____Sec ____Roll No._____

BURNPUR RIVERSIDE SCHOOL, BURNPUR
HALF - YEARLY EXAMINATION : [2025 – 2026]
CLASS - XII
MATHEMATICS

Time: 3 Hrs.   **Maximum Marks: 80**

==

General Instructions:

*1. This question paper contains – **five sections A, B, C, D** and **E**. Each section is compulsory. However, there are internal choices in some questions.*

*2. **Section A** has 18 **MCQ's and 02** Assertion – Reason based questions of 1 mark each.*

*3. **Section B** has 05 **Short Answer (SA) – type** questions of 2 marks each.*

*4. **Section C** has 06 **Long Answer (LA-I) – type** questions of 3 marks each.*

*5. **Section D** has 04 **Long Answer (LA-II) – type** questions of 5 marks each.*

*6. **Section B** has 03 **Source Based / Case Based (CBQ) – type** question of 4 marks each.*

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SECTION - A
(Multiple Choice Questions)
Each question carries 1 mark.

1. For the set A = {1, 2, 3}, define a relation R in the set A as follows R = {(1, 1), (2, 2), (3, 3), (1, 3)}. Then, the ordered pair to be added to R to make it the smallest equivalence relation is   1
   a) (3, 1)
   b) (2, 1)
   c) (1, 2)
   d) (1, 3)

2. The relation R in the set of natural numbers N defined as R = {(x, y) : x > y}is   1
   a) reflexive, transitive but not symmetric
   b) an equivalence relation
   c) transitive but neither reflexive nor symmetric
   d) reflexive, symmetric but not transitive

3. Let A and B be two non - empty sets and let
   f: A × B → B × A: f(a, b) = (b, a). Then f is   1
   (a)   One – one and into
   (b)   One – one and onto
   (c)   Many – one and into
   (d)   Many – one and onto

4. If A and B are symmetric matrices of the same order, then   1
   $(AB^T - BA^T)$ is a
   a) Skew symmetric matrix
   b) Symmetric matrix
   c) Unit matrix
   d) Null matrix

5. If $\begin{bmatrix} \cos\frac{2\pi}{7} & -\sin\frac{2\pi}{7} \\ \sin\frac{2\pi}{7} & \cos\frac{2\pi}{7} \end{bmatrix}^k = \begin{bmatrix} 1 & 0 \\ 0 & 1 \end{bmatrix}$, then the least positive integral value   1
   of k is
   a) 7
   b) 4
   c) 3
   d) 6

6. If A is square matrix, then A is symmetric, if   1
   a) $A^T = A$
   b) $A^T = - A$
   c) $A^2 = A$
   d) $A^2 = I$

7. Find the area of triangle with vertices (1, 1) , (2, 2) and (3, 3).   1
   a) 0
   b) 2
   c) 1
   d) 3

8. If the area of a △ABD is 3 sq. units with vertices A(1, 3), B(0, 0) and   1
   D (k, 0), then k is equal to
   a) 2
   b) ±2
   c) ±3
   d) 3

9. The function $f(x) = x - [x]$, where $[.]$ denotes the greatest integer function is 1
   a) continuous at integer points only
   b) continuous everywhere
   c) continuous at non - integer points only
   d) differentiable everywhere

10. $\frac{d}{dx}\left\{\tan^{-1}\left(\frac{\cos x}{1+\sin x}\right)\right\}$ equal 1
    a) 1
    b) - 1
    c) 1/2
    d) - 1/2

11. The differential coefficient of $f(\log x)$ with respect to x, where $f(x) = \log x$ is 1
    a) $\frac{\log x}{x}$
    b) $(x \log x)^{-1}$
    c) $\frac{x}{\log x}$
    d) $\frac{2x}{\log x}$

12. If $y = \sin^{-1}(\cos x) + \cos^{-1}(\sin x)$ then the value of $\frac{dy}{dx}$ is: 1
    (i)   -1
    (ii)   -2
    (iii)   1
    (iv)   2

13. The principal value of $\cot^{-1}(-1)$ is 1
    a) $\frac{5\pi}{4}$
    b) $\frac{3\pi}{4}$
    c) $\frac{-\pi}{4}$
    d) $\frac{\pi}{4}$

14. $f(x) = \sin x - kx$ is decreasing for all $x \in R$, when 1
    a) $k < 1$
    b) $k \leq 1$
    c) $k > 1$
    d) $k \geq 1$

15. $\int \frac{\sin^2 x - \cos^2 x}{\sin^2 x \cos^2 x} dx$ is equals to

a) tan x + cot x + C

b) – tan x + cot x + C

c) tan x + sec x + C

d) tan x + cosec x + C

1

16. $\int \frac{1}{x \cos^2(1 + \log x)} dx = ?$

a) sec (1 + log x) + C

b) cos (1 + log x) + C

c) tan (1 + log x) + C

d) cot (1 + log x) + C

1

17. $\int \frac{\sin(x - \alpha)}{\sin(x + \alpha)} dx = ?$

a) 3x cos 2 α + sin 2 . 2 log|sin (x + α)| + C

b) x cos 2 α + sin 2 α . log|sin (x + α)| + C

c) 2x cos 2 α - sin α . log |sin (x + α)| + C

d) x cos 2α - sin 2 α .log |sin (x + α)| + C

1

18. The value of $\sin^{-1} (\sin \frac{2\pi}{3})$ is

(a) $\frac{2\pi}{3}$

(b) $\frac{\pi}{3}$

(c) π

(d) $\frac{\pi}{2}$

1

ASSERTION – REASON BASED QUESTIONS

19. **Assertion (A):** f(x) = 1 + x ^{2} is a one to one function from R $^+$ → R.

Reason (R): Every strictly monotonic function is a one to one function.

a) Both A and R are true and R is the correct explanation of A.

b) Both A and R are true but R is not the correct explanation of A.

c) A is true but R is false.

d) A is false but R is true.

1

20. **Assertion (A):** f(x) is continuous at x = a, iff $\lim_{x \to a} f(x)$ exists and equals to f(a).   1

Reason (R): If f(x) is continuous at a point, then $\frac{1}{f(x)}$ is also continuous at the point.

a) Both A and R are true and R is the correct explanation of A.
b) Both A and R are true but R is not the correct explanation of A.
c) A is true but R is false.
d) A is false but R is true.

SECTION - B

This section has 05 **Short Answer (SA) – type** questions of 2 marks each.

21. A function f is defined from R→ R as f(x) = ax + b, such that f(1) = 1   2 and f(2) = 3. Find function f(x). Hence, check whether function f(x) is one - one and onto or not.

OR

Show that the function f: $(-\infty, 0) \to (-1, 0)$ defined by $f(x) = \frac{x}{1+|x|}$, $x \in (-\infty, 0)$ is one - one and onto.

22. Determine the value of constant involved in the definition so that the   2 given function is continuous at x = 2, where $f(x) = \begin{cases} kx + 5, & \text{if } x \leq 2 \\ x - 1, & \text{if } x > 2 \end{cases}$

23. If y log x = x – y, then show that $\frac{dy}{dx} = \frac{\log x}{(1+\log x)^2}$ 2

24. The length x of a rectangle is decreasing at the rate of 2 cm/sec and the   2 width y is increasing at the rate of 2 cm/sec. When x = 12 cm and y = 5 cm, find the rate of change of
(i) the perimeter and

(ii) the area of the rectangle.

25. Evaluate the integral: $\int_0^1 |\sin 2\pi x|\, dx$ 2

OR

Evaluate: $\int e^x \left(\frac{1-\sin x}{1-\cos x}\right) dx$.

This section has 06 **Short Answer (SA) – type** questions of 3 marks each.

26. Express the matrix A as the sum of a symmetric and a skew symmetric matrix, where

$$A = \begin{bmatrix} 2 & 4 & -6 \\ 7 & 3 & 5 \\ 1 & -2 & 4 \end{bmatrix}$$

3

27. Let $f(x) = \begin{cases} \dfrac{1-\sin^3 x}{3\cos^2 x}, & \text{if } x < \dfrac{\pi}{2} \\ a & \text{, if } x = \dfrac{\pi}{2} \\ \dfrac{b(1-\sin x)}{(\pi-2x)^2}, & \text{if } x > \dfrac{\pi}{2} \end{cases}$ is continuous at $x = \dfrac{\pi}{2}$, find a and b.

3

28. If $x\sqrt{1+y} + y\sqrt{1+x} = 0$ and $x \neq y$, prove that $\dfrac{dy}{dx} = -\dfrac{1}{(x+1)^2}$.

3

OR

Find $\dfrac{dy}{dx}$ when $y = (\sin x)^{\cos x} + (\cos x)^{\sin x}$

29. Find the intervals on which the given function is

(i)   increasing

(ii)   decreasing

where $f(x) = x^3 - 12x^2 + 36x + 17$

3

30. Evaluate $\int_{\pi/6}^{\pi/3} \dfrac{\sin x + \cos x}{\sqrt{\sin 2x}} dx$.

3

OR

Prove that: $\int_0^\infty \dfrac{x}{(1+x)(1+x^2)} dx = \dfrac{\pi}{4}$

31. Evaluate: $\int e^x \dfrac{x^2+1}{(x+1)^2} dx$

3

SECTION - D

This section has 04 **Long Answer (LA-I) – type** questions of 5 marks each.

32. If $y = 3\cos(\log x) + 4\sin(\log x)$. Show that $x^2 y_2 + xy_1 + y = 0$

5

33. An open box with a square base is to be made out of a given quantity of cardboard of area c^2. Show that the maximum volume of box is $\dfrac{c^3}{6\sqrt{3}}$ cubic units.

5

34. By using the properties of definite integral 5

Prove that $\int_0^1 \frac{\log(1+x)}{1+x^2} dx = \frac{\pi}{8} \log 2$.

OR

By using the properties of definite integral ,Evaluate the

integral:$\int_0^{\pi/2} \frac{\cos^2 x}{\sin x + \cos x} dx$

35. Find the area enclosed by the parabola $4y = 3x^2$ and the line $2y = 3x + 12$. 5

OR

Find the area of the smaller region bounded by the ellipse $\frac{x^2}{9} + \frac{y^2}{4} = 1$

and the line $\frac{x}{3} + \frac{y}{2} = 1$.

SECTION - E

This section has 03 **Source Based / Case Based (CBQ) – type** question of 4 marks each.

36. **Read the following text carefully and answer the questions that follow:**

Soham is confused in the Mathematics topic 'Relation and equivalence relation'. To clear his concepts on the topic, he took help his elder brother. He has following notes on this topic.

Relation: A relation R from a set A to a set B is a subset of the cartesian product A × B obtained by describing a relationship between first element x and the second element 'y' of the ordered pairs in A × B. A relation R in a set A is called. :

Reflexive: If $(a, a) \in R \, \forall a \in A$.

Symmetric: If $(a_1, a_1) \in R \Rightarrow (a_2, a_1) \in R \, \forall \, a_1, a_2 \in R$.

Transitive: If $(a_1, a_1) \in R$ and $(a_2, a_3) \in R \Rightarrow (a_2, a_3) \in R \, \forall \, a_1, a_2, a_3 \in A$

Equivalence Relation: A relation R in a set A is an equivalence relation if R is reflexive, symmetric and transitive.

   (i)   Find the maximum number of equivalence relations on the set 1
           A = {1, 2, 3}.

   (ii)   Consider the non - empty set consisting of children in a family 1
           and a relation R defined as aRb if a is brother of b. Then show
           that R is transitive but not symmetric.

           2

(iii)   Show that relation defined by $R_1 = \{(x, y): x^2 = y^2\}$ x, y $\in$ R is an equivalence relation.

OR

Check whether the relation (R) x is greater than y for all x, y $\in$ N is reflexive, symmetric or transitive.

37.   **Read the following text carefully and answer the questions that follow:**

Three friends Ravi, Raju and Rohit were doing buying and selling of stationery items in a market. The price of per dozen of pen, notebooks and toys are Rupees x, y and z respectively.

Ravi purchases 4 dozen of notebooks and sells 2 dozen of pens and 5 dozen of toys. Raju purchases 2 dozen of toy and sells 3 dozen of pens and 1 dozen of notebooks. Rohit purchases one dozen of pens and sells 3 dozen of notebooks and one dozen of toys.

In the process, Ravi, Raju and Rohit earn ₹ 1500, ₹ 100 and ₹ 400 respectively.

1

1

2

(i)   Write the above information in terms of matrix Algebra.

(ii)   What is the total price of one dozen of pens and one dozen of notebooks?

(iii)   What is the sale amount of Ravi?

OR

What is the amount of purchases and sales made by all three friends?

38. **Read the following text carefully and answer the questions that follow:**

A tank, as shown in the figure below, formed using a combination of a cylinder and a cone, offers better drainage as compared to a flat bottomed tank.

A tap is connected to such a tank whose conical part is full of water. Water is dripping out from a tap at the bottom at the uniform rate of 2 cm^3 /sec. The semi - vertical angle of the conical tank is 45° .

(i)   Find the volume of water in the tank in terms of its radius r.   1

(ii)   Find rate of change of radius at an instant when r $=2\sqrt{2}$ cm.   1

(iii)   Find the rate at which the wet surface of the conical tank is decreasing at an instant when radius r $=2\sqrt{2}$ cm.   2

OR

Find the rate of change of height h at an instant when slant height is 4 cm.

==================================

Name: _____ Sec: _____ Roll No.: _____

CODE: A

BURNPUR RIVERSIDE SCHOOL, BURNPUR
HALF YEARLY EXAMINATION: [2025-2026]
COMPUTER SCIENCE
CLASS – XII

Time: 3 Hrs.   Maximum Marks: 70
===

General Instructions:
- *This question paper contains five sections, Section A to E.*
- *All questions are compulsory.*
- *Section A has 21 questions carrying 01 mark each.*
- *Section B has 07 Very Short Answer type questions carrying 02 marks each.*
- *Section C has 03 Short Answer type questions carrying 03 marks each.*
- *Section D has 04 Long Answer type questions carrying 04 marks each.*
- *Section E has 02 questions carrying 05 marks each.*
- *All programming questions are to be answered using Python Language only.*
- *In case of MCQ, text of the correct answer should also be written.*

===

SECTION-A
Each question carries 1 mark
Answer the following questions

1.   State **True** or **False** :   1
        Do both the following represent the same list.
                ['a', 'b', 'c']
                ['c', 'b', 'a']

2.   Given the lists L=[2,4,1,3,9,14,66,12]   1
        Write the output of print(L[3:7]).
        a. [3,9,14,66]   b. [1,3,9,14,66]   c. [3,9,14,66,12]   d. none

3.   The _____ operator tells if an element is present in a sequence   1
        or not.
        a. exists   b. in   c. into   d. inside

4.   Consider the code below. What will the list NL be storing?   1
        Lst = [('a', 6), ('b', 5), ('c', 4)]
        NL = [n * 3 for (x, n) in Lst if x = = 'b' or x = = 'c']

5. Which of the following function headers is correct?   1
   a. def x(m=1, n):   b. def x(m=1, n, o=2):
   c. def x(m=1, n=1, o=2):   d. def x(m=1, n=1, o=2, d):

6. The ____ function changes the position of the file pointer by placing   1
   the file pointer at the specified position in the open file.
   a. peek( )   b. get( )   c. seek( )   d. none

7. Which of the following is not a function / method of the random   1
   module in Python?
   a. randfloat( )   b. randint( )
   c. random( )   d. randrange( )

8. Which device filters data packets and only sends to those that   1
   require the data?
   a. Router   b. Switch   c. Hub   d. Bridge

9. What will be the output of the following expression: 1
   >>> 10 > 5 and 7 > 12 or not 18 > 3
   a. False   b. True   c. 1010   d. none

10. Which of the following is the valid syntax for using the seek( )   1
    function?
    a. <file-object>.seek(offset [, mode])
    b. <file-object>.seek(onset [, 15])
    c. <file-object>.seek(offset [3, 14])
    d. None of the above

11. ____ form of access is used to add/remove nodes from a stack.   1
    a. FIFO   b. LIFO   c. Both (a) & (b)   d. None

12. Which device broadcasts any data to all devices on a network?   1
    a. Router   b. Switch   c. Hub   d. Bridge

13. State whether the following statement is **TRUE** or **FALSE**:   1

    The tell( ) function returns the current position of file-pointer in

    close file.

14. In a stack, all insertions take place at ____ end(s).   1
    a. top   b. front   c. rear   d. any

15. **Fill in the blank:**   1

    CSV files should be opened with newline argument to suppress

    ____ translation.

16. What is a variable defined outside all the functions referred to as?   1
    a. A static variable   b. A global variable
    c. A local variable   d. none

17. Which of the following is the odd one out?
    FTP, HTTP, IMAP, HTTPS
    a. IMAP   b. FTP   c. HTTPS   d. HTTP
18. Which of the following is not a mobile communication technology?
    a. GPRS   b. GSM   c. 5G   d. HTTP
19. Which of the following is analogue network?
    a. 1g   b. 3g   c. 5g   d. None

*Q. 20 and 21 are **ASSERTION AND REASONING** based questions. Mark the correct choice as*
(a) Both A and R are true and R is the correct explanation of A.
(b) Both A and R are true but R is not the correct explanation of A.
(c) A is True but R is False (or partly true)
(d) A is false (or partly true) but R is True
(e) Both A and R are false or not fully true

20.	**ASSERTION (A)**: Python is said to have broadly two types of files – binary and text files, even when there are CSV and TSV files also.	1
	REASON (R): The CSV and TSV are types of delimited text files only where delimiters are comma and tab respectively.	
21.	**ASSERTION (A)**: Stacks have found their applications in storing and evaluating expressions.	1
	REASON (R): Postfix form of expression can be created using stacks and for evaluating postfix expressions also, the stacks are used.	

SECTION-B
Each question carries 2 marks

Answer the following questions

22.	Differentiate between **Hub** and **Switch**.	2
23.	What do you understand by local and global scope of variables? How can you access a global variable inside the function, if function has a variable with same name?	2

24. Write the codings to display the content of file "brs.txt". 2
25. Name the Python Library modules which need to be imported to 2
    invoke the following functions:
    i)   sin( )
    ii)   randint( )
26. How is **IP address** different from **MAC address**? 2
    Discuss briefly.
27. What is the length of the tuple shown below? 2
    t = (((('a', 1), 'b', 'c'), 'd', 2), 'e', 3)
    Explain briefly to support your answer.
28. Write down the functions of the following two basic operations that 2
    can be performed on stacks.
    a. Peek
    b. Display

SECTION-C

Each question carries 3 marks

Answer the following questions

29. a. Expand the following protocols: IMAP and POP3.   (1)   3
    b. Mention the functions of IMAP and POP3.   (2)
30. Consider the file d12.txt.   3

    Discipline is the bridge between goals and achievement.
    It's the self-control needed to resist temptations and stay
    focused on long-term visions.
    Disciplined individuals are more likely to manage time
    effectively, build good habits, and ultimately succeed in
    various aspects of life.

    Now predict the output of following code that works with d12.txt.
        disp = open ("d12.txt", "r")
        print (disp.readline(24))
        a12 = disp.readline(55)
        print (a12)
        print (disp.readline(21))

31. Predict the output of the following code fragment: 3

```
def abc (n1=10, n2=3):
        n1 = n1 % n2
        n2 += 1
        print(n1, n2)
abc(5, 7)
abc( )
abc(9)
```

SECTION-D
Each question carries 4 marks

Answer the following questions

32. Consider a function with following header: 4
    Def info(object, spacing = 10, collapse = 1)
    Here are some function calls given below. Find out which of these
    are correct and which of these are incorrect stating reasons:
    i.   info(obj3, collapse = 0)
    ii.   info( )
    iii. info(collapse = 0, obj3)
    iv.   info(spacing = 15, object = obj4)
33.   a. Give the full form of NFS and FTP.   (1)   4
       b. What do you understand by firewall?   (1)
       c. Differentiate between downloading and uploading. (2)
34.   A given text file "data.txt" contains: 4
            Line 1\n
            \n
            Line 3
            Line 4
            \n
            Line 6
    What will be the output of following code?

```
fh = open ("data.txt", "r")
lst = fh.readlines( )
print( lst[0], end = '' )
print( lst[2], end = '' )
print( lst[5], end = '' )
print( lst[1], end = '' )
```

35. Given a stack as an array of 7 elements STACK : K, P, S, _, _, _,   4
      (a)   When will overflow and underflow occur?   (2)
      (b)   Can K be deleted before S? Why?   (1)
      (c)   What do you understand by the term 'Stack'?   (1)

SECTION-E

Each question carries 5 marks

Answer the following questions:

36. Sachin has a list containing 8 integers. You need to help him to   5
create a program with separate user defined functions to perform
the following operations based on this list.

- Traverse the content of the list and push the even numbers into a stack.

- Pop and display the content of the stack.

For Example:

If the sample content of the list is as follows:

N=[6, 2, 7, 5, 6, 5, 4, 1]

Sample Output of the code should be:

4 6 2 6

37. Rovenza Communications International (RCI) is an online   5
corporate training provider company for IT related courses. The
company is setting up their new campus in Kolkata. You as a
network expert have to study the physical locations of various
blocks and the number of computers to be installed. In the planning

phase, provide the best possible answers for the queries (i) to (iv) raised by them.

Physical Location of the building of RCI

| Administrative Building | Finance Building | Faculty Studio Building |
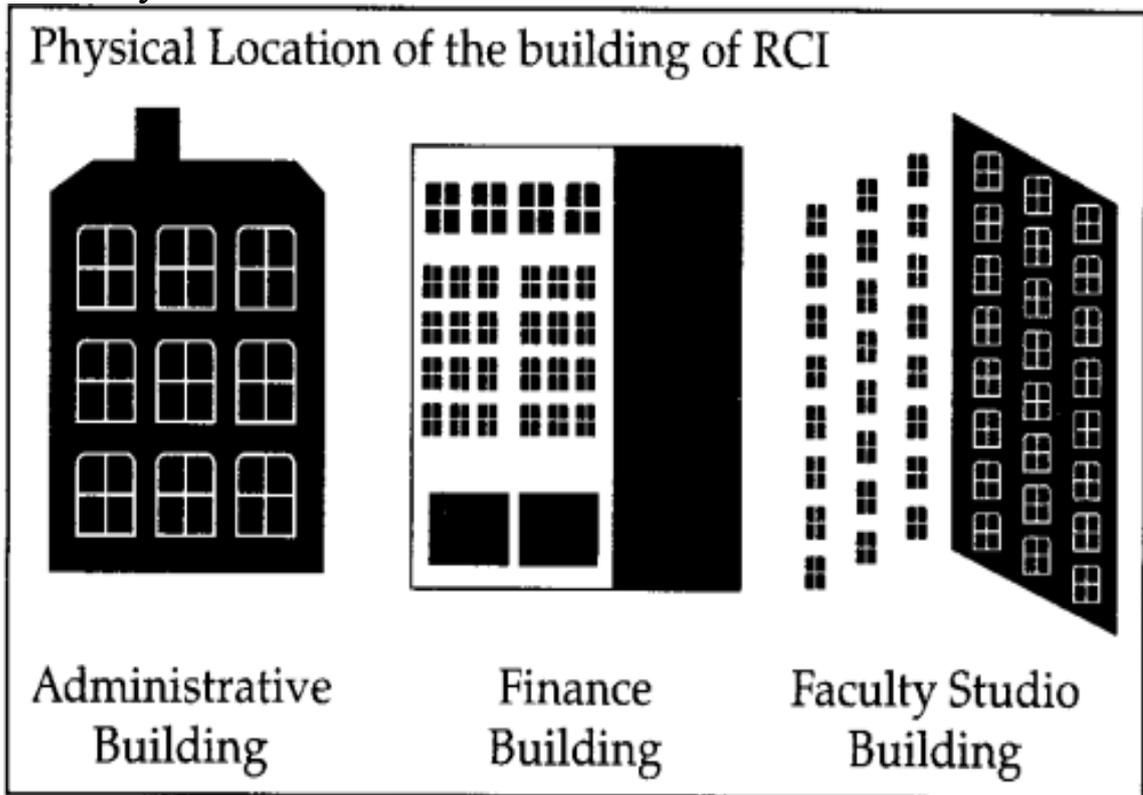
Block to Block Distances (in Mtrs.)

From	To	Distance
Administrative Building	Finance Building	60
Administrative Building	Faculty Studio Building	120
Finance Building	Faculty Studio Building	70

Expected computers to be installed in each block:

Buildings	Computers
Administrative Building	20
Finance Building	40
Faculty Studio Building	120

i) Suggest the most appropriate block, where RCI should plan to install the server. Give reasons. (2)

ii) Suggest the most appropriate block to block cable layout to connect allthree blocks for efficient communication. (1)

iii) Which type of network out of the following is formed by connecting the computers of these three blocks? (1)

o LAN

o MAN

o WAN

iv) Which wireless channel out of the following should be opted by RCI to connect to students from all over the world? (1)

o Infrared

o Microwave

o Satellite

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NAME_____SEC_____ROLL NO_____

CODE: B

BURNPUR RIVERSIDE SCHOOL, BURNPUR
HALF YEARLY EXAMINATION: [2025-2026]
COMPUTER SCIENCE (083)
CLASS-XII

Time : 3 Hrs.   **Maximum Marks: 70**
===

General Instructions:
1. This question paper contains five sections, Section A to E.
2. All questions are compulsory.
3. Section A has 21 questions carrying 01 mark each.
4. Section B has 07 Very Short Answer type questions carrying 02 marks each.
5. Section C has 03 Short Answer type questions carrying 03 marks each.
6. Section D has 04 Long Answer type questions carrying 04 marks each.
7. Section E has 02 questions carrying 05 marks each.
8. All programming questions are to be answered using Python Language only.
9. In case of MCQ, text of the correct answer should also be written.

===

SECTION-A

1. Each of the key within a dictionary must be unique. (True or False) [1]

2. Which of the following is an incorrect Logical operator in Python? [1]
    a.not   b.in   c.or   d.and

3. Which of the following command will create a list? [1]
    a.list1=list()
    b.list1 = []
    c.list1 =list ([1,2,3])
    d.all of these

4. Stack is implemented in LIFO manner. The full form of LIFO is _____ In First Out. [1]
    a. Last   b. Letter   c. Live   d. Long

5. Which of the following keywords marks the beginning of the function block? [1]
    a.func   b.define
    c.def   d.function

6. Which of the following is not a correct Python statement to open a text file"Notes.txt" to write content into it? [1]
a.F = open('Notes.txt','w')
b.F = open('Notes.txt', 'a')
c.F = open('Notes.txt', 'A')
d. F = open('Notes.txt', 'w+')

7. _____ module provides functions for generating pseudo random numbers. [1]
a.math   b.random   c.statistics   d.Urllib

8. The bleeding of a signal from one wire to another can corrupt signal and cause network errors. This form of signal interferences is called _____. [1]
a.Crosstalk   b.broadcast
c.transmission   d.none

9. What is the output of the following code? [1]
a = [13,56,17]
a.append([187])
a.extend([45,67])
print(a)

   a. [13, 56, 17, [187], 45, 67]
   b. [13, 56, 17, 187, 45, 67]
   c. [13, 56, 17, 187, [45, 67]]
   d. [13, 56, 17, [187], [45, 67]]

10. Which of the following functions do you use to write data in the binary format? [1]
a. write   b. output   c.dump   d. send

11. In Stack all insertion takes place from the _____. [1]
a.bottom   b.right   c.top   d.rear

12. A ____ is a venue that offers Wi-Fi-access. [1]
a.Telnet   b.Web browser   c.Hotspot   d.website

13. When you open a file for writing, if the file does not exist, an error occurs.[True or False] [1]

14. ___ form of access is used to add or remove nodes from a stack. [1]
a.LIFO   b.FIFO   c.LRU   d.RANDOM

15. To force Python to write the contents of file buffer on to storage file, _____ method may be used. [1]

16. What is a variable defined outside all the functions referred to as ? [1]
a.A static variable   b.A global variable
c.A local variable   d.An automatic variable

17. Network in which every computer is capable of playing the role of a client, or a server or both at same time is called
a.peer-to-peer network   b.local area network
c.dedicated server network   d.wide area network

18. A ____ is a network device that amplifies and restores signals for long-distance transmission.
a.Repeater   b.Router   c.Bridge   d.Crosstalk

19. The system designed to prevent unauthorized access to or from a private network is called _____.
a.CyberLaw   b.Firewall   c.Virus   d.none

Q20 and 21 are ASSERTION AND REASONING based questions. Mark the correct choice as
 (a) Both A and R are true and R is the correct explanation for A
(b) Both A and R are true and R is not the correct explanation for A
(c) A is True but R is False
(d) A is false but R is True

20. **Assertion(A):**Binary files are faster and easier for a program to read and write than a text files. [1]
Reasoning (R):A binary file stores the information in the form of a stream of bytes.

21. **Assertion(A):**A stack is a LIFO structure. [1]
Reasoning (R): Any new element pushed into the stack always gets positioned at the index after the last existing element in the stack.

SECTION-B

22. Name any four types of Topologies. [2]

23. Write a function to check whether a number is Armstrong or not. [2]

24. Differentiate between the following: [2]
f = open('diary.txt', 'r')
f = open('diary.txt', 'w')

25. What possible output(s) are expected to be displayed on screen at the time of execution of the program from the following code? Also specify the maximum values that can be assigned to each of the variables FROM and TO. [2]

```
import random
AR = [ 20,30, 40, 50, 60, 70];
FROM = random.randint(1,3)
TO = random.randint(2,4)
for K in range(FROM, TO+1)
        print (AR[k], end= "#")
```

26. A.Define Gateway. [2]
   B.What is Topology?

27. Name the list methods used for various list manipulation: [2]
   (i)To insert an item at a given position.
   (ii)To remove the item from the list.
   (iii)To reverse the items of the list.
   (iv)For adding multiple elements to the list.

28. What is the difference between Overflow and Underflow statement in stack implementation? [2]

SECTION-C

29. Expand the following term: (i)HTTP (ii)SMTP. [3]
   Differentiate between Hackers and Crackers?

30. What will be stored in the file school.csv after the following code is executed? [3]

```
data = [ [ 'DRS Delhi', 'Esha', 'Badminton'],
        [ 'BTS Patna', 'Abhi', 'Tennis'] ]
import csv
with open ('schoo;.csv', 'w', newline ='') as csvfile:
    writer = csv.writer (csvfile, delimiter = ',')
    writer.writerow(['School', 'Nickname', 'Sport'])
    writer.writerow(data)
```

31.	What is a Function? What is the Default Parameter of a	[3]
	function?

SECTION-D

32.	Find and write the output of the following python code :	[4]

```
def Call(P = 40, Q = 20):
    P = P + Q
    Q = P - Q
    print(P, '@', Q)
    return P
R = 200
S = 100
R = Call(R, S)
print(R, '@', S)
S = Call(S)
print(R, '@', S)
```

33.	Give four advantages of Twisted pair cable.	[4]
34.	Write a program to read a text file and display the count of	[4]
	vowels and consonants in the file
35.	(a)What is a stack?	[4]
	(b) What is the difference between Peek and Push function
	in stack implementation?

SECTION-E

36.	Consider a list named L which contains the following	[5]
	random integers.
	L = [12,1250625,64265,145,85245]
	Write a program with the following user defined functions
	along in Python and perform the specified operation on a
	stack named B.
	(i)**PushBig(L)** – It checks every number from the list L and
	pushes all such numbers which have 5 or more digits into the
	stack B.
	(ii)**PopBig(B)**-It pops the numbers from the stack B and
	displays them. The function should also display **"Stack
	Empty"** when there are no more numbers left in the stack.
	For example : the output should be as follows:
	the random list L is: [12, 1250625, 64265, 145, 85245]
	the selected list B is: [1250625, 64265, 85245]
	the deleted no is 85245
	the deleted no is 64265

the deleted no is 1250625
Stack Empty

37. "China Middleton Fashion" is planning to expand their [5]
network in India, starting with two cities in India to provide
infrastructure for distribution of their product. The company
has planned to setup their main office in Chennai at three
different locations and have named their offices as
"Production Unit", "Finance Unit" and "Media Unit". The
company has its corporate unit in Delhi.
A rough layout of the same is shown on the right :
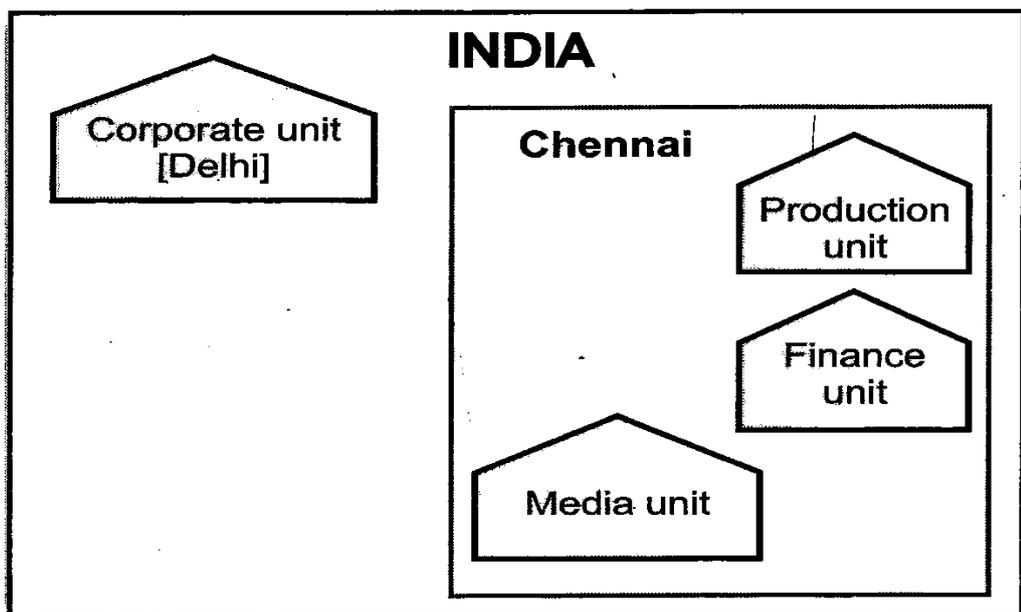
Approximate distance between these Units is as follows :

From	To	Distance
Production Unit	Finance Unit	70 m
Production Unit	Media Unit	15 km
Production Unit	Corporate Unit	2112 km
Finance Unit	Media Unit	15 km

In continuation of the above, the company experts have
planned to install the following number of computers in each

of their offices :

Production Unit	150
Finance Unit	35
Media Unit	10
Corporate Unit	30

(i) Suggest the kind of network required (out of LAN, MAN, WAN) for connecting each of the following office units :
1. Production Unit and Media Unit
2. Production Unit and Finance Unit

(ii) Which one of the following devices will you suggest for connecting all the computers within each of their office units ?
1. Switch/Hub
2. Modem
3. Telephone

(iii) Which of the following communication media, you will suggest to be procured by the company for connecting their local office units in Chennai for very effective (High Speed) communication ?
1. Telephone Cable
2. Optical Fibre
3. Ethernet Cable

(iv) Suggest a cable/wiring layout for connecting the company's local office units located in Chennai. Also, suggest an effective method/technology for connecting the company's office unit located in Delhi.

(v) Name the unit where the server is to be installed. Justify your answer.

===

Name: _____ Sec: _____ Roll No.: _____

CODE: A

BURNPUR RIVERSIDE SCHOOL, BURNPUR
HALF YEARLY EXAMINATION [2025-2026]
BIOLOGY [044]
CLASS : XII

Time: 3 Hours   **Maximum Marks : 70**

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GENERAL INSTRUCTIONS:

(i) All questions are compulsory.
(ii) The question paper has five sections and 33 questions.
(iii) Section–A has 16 questions of 1 mark each; Section–B has 5 questions of 2 marks each; Section– C has 7 questions of 3 marks each; Section– D has 2 case-based questions of 4 marks each; and Section–E has 3 questions of 5 marks each.
(iv) There is no overall choice. However, internal choices have been provided in some questions. A student has to attempt only one of the alternatives in such questions.
(v) Wherever necessary, neat and properly labelled diagrams should be drawn.

===

SECTION – A

1. What is the ploidy of the cells in a megaspore dyad?   1
    a. n
    b. 2n
    c. 3n
    d. 4n

2. Which of the following is the connecting duct between rete testis and epididymis?   1
    a. Vas deferens
    b. Vasa efferentia
    c. Seminal vesicle
    d. Urethral meatus

3. The most common barrier method used as contraception is-   1
    a. Periodic abstinence
    b. Sterilisation
    c. IUDs
    d. Cervical caps

4. Which of the following STDs is curable?   1
   a. Hepatitis-b
   b. Genital herpes
   c. Syphilis
   d. AIDS

5. A test cross was conducted to find out the genotype of the   1
   dominant parent. The f1 progeny were 21 tall and 3 dwarf.
   What is the genotype of the parents that were crossed?
   a. TT X tt
   b. Tt X Tt
   c. Tt X tt
   d. TT X Tt

6. What will be the number of amino acids in the protein made   1
   from a mRNA molecule with 1000 bases?
   a. 64
   b. 333
   c. 999
   d. 1000

7. Identify the evolutionary father of *Homo sapiens* with the   1
   following features:
   Lived in east African grassland around 2mya, 4 feet tall,
   walked upright, hunted with stone weapons and essentially ate
   fruit.
   a. *Australopithecines*
   b. *Ramapithecus*
   c. Neanderthal man
   d. *Homo habilis*

8. Which of the following genus causes pneumonia?   1
   a. *Plasmodium*
   b. *Salmonella*
   c. *Wuchereria*
   d. *Streptococcus*

9. Lactobacillus enhances the milk with-   1
   a. Vit B12
   b. Vit C
   c. Vit E
   d. Vit B9

10. Downstream processing includes-   1
    a. Purification   b. DNA isolation
    c. Biolistics   d. Prepation of rDNA

11. Which of the following controls corn borer?　　　　　1
　　 a. cryIAc
　　 b. cryIAb
　　 c. cryIIAb
　　 d. cryIIAc

12. *Meloidegyne incognitia* is a-　　　　　1
　　 a. Bacterium
　　 b. Nematode
　　 c. Fungi
　　 d. Aquatic plant

Question No. 13 to 16 consist of two statements – Assertion (A) and Reason (R). Answer these questions selecting the appropriate option given below:

a. Both A and R are true and R is the correct explanation of A.

b. Both A and R are true and R is not the correct explanation of A.

c. A is true but R is false.

d. A is False but R is true.

13. Assertion: Euchromatin is composed of exons only.　　　　　1
Reason: Euchromatin is transcriptionally active section.

14. Assertion: Thymus is a primary lymphoid organ.　　　　　1
Reason: It is a key site for the production and maturation of T lymphocytes.

15. Assertion: Wine is a distilled alcoholic drink.　　　　　1
Reason: *Saccharomyces cerevisiae* is used for the fermentation process required for wine making.

16. Assertion: Smaller DNA fragments travel farthest from the　　　　　1
negative terminal in gel electrophoresis.
Reason: DNA is negatively charged.

SECTION-B

17. State two reasons that lead to the formation of apomictic seeds.　2

18. Name the female hormones exclusively produced during pregnancy.　2

19. When a person suffers from Klinefelter's syndrome-　2
　　 a. What is the karyotype and total number of chromosomes?
　　 b. The trisomy is seen in which chromosome number?

20. How is convergent evolution different from, divergent evolution? Give one example each.   2

21. **Attempt either option A or B.**   2
   A. List the step by step process to create a competent host for transformation with recombinant DNA.

<div align="center">OR</div>

   B. Name the enzymes used as:
     a. Molecular scissors
     b. Molecular glue

<div align="center">

SECTION C

</div>

22. Discuss the types of pollination based on the source of pollen grain.   3

23. You have been given a small DNA strand and you want to amplify it. Which modern technique would you use and why?   3

24.   3
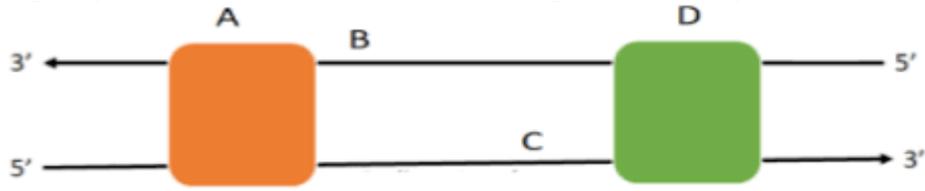
   a. Label A,B,C,D of the transcription unit.
   b. What is splicing?

25. In a population with two alleles A and a having allele frequency 0.3 and 0.7 in Hardy-Weinberg equilibrium, how many individuals in a population of 250 can be expected to be heterozygous? Calculate.   3

26. Discuss the structure of an antibody molecule with the help of a diagram.   3

27. **Attempt either option A or B.**   3
   A. What are the simple principles a teenager must adopt to prevent themselves from STDs?

<div align="center">OR</div>

   B. Put light on the following terms:
     a. ICSI
     b. IUI
     c. MTP

28. With the help of a suitable diagram explain the preparation of recombinant insulin adopted by Eli Lily in 1983.   3

SECTION D

Q.no. 29 and 30 are case based or source based units of assessments of 04 marks each with sub-parts (internal choice have been provided in one of the sub-parts) .

29.
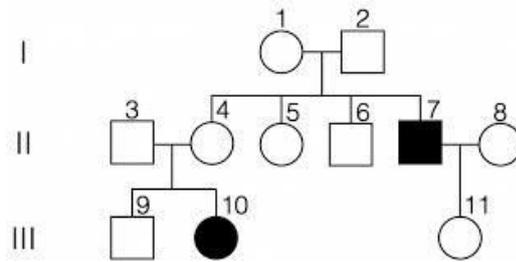
4

    A. Which kind of Mendelian disorder is depicted by the pedigree? (1)

    B. Find out the genotype of individual 1,3,7,11. (2)

    Attempt either subpart C or D.

    C. What is the purpose of pedigree analysis? (1)

             OR

    D. Name two mendelian disorders that have the same type of inheritance pattern. (1)

30.   Substance use among adolescents ranges from experimentation to severe substance use disorders. All substance use, even experimental use, puts adolescents at risk of short-term and long-term problems, such as accidents, fights, unwanted sexual activity, and overdose. Substance use also interferes with adolescent brain development. 4

    A. What is the source plant of marijuana? (1)

    B. Name 2 well-known plants with hallucinogenic properties. (1)

    Attempt either subpart C or D.

    C. Where are opioid receptors present in our body? (2)

             OR

    D. What are the side effects of (mis)using narcotic analgesics by female sportspersons? (2)

SECTION E

31.   Explain the process of oogenesis till ovulation. 5

             OR

Schematically present the 28days cycle of menstruation.

32.   Elaborate Hershey-Chase experiment. 5

             OR

Discuss the process of DNA replication.

33.   Elucidate the primary and secondary treatment of sewage.   5

OR

Name the microbes involved in the production of:
   a. Swiss cheese
   b. Cyclosporin-A
   c. Butyric acid
   d. Streptokinase, the clot buster
   e. Ethanol

==

Name: _____ Sec: _____ Roll No.: _____

BURNPUR RIVERSIDE SCHOOL, BURNPUR
HALF YEARLY EXAMINATION : [2025-2026]
BIOLOGY (044)
CLASS : XII

Time: 3 Hours   Maximum Marks : 70
==

General Instructions:

i   *All questions are compulsory.*

ii   *The question paper contains five sections and 33 questions.*

iii ***Section A*** *has 16 questions of 1 mark each.* ***Section B*** *has 05 questions of 2 marks each.* ***Section C*** *has 07 questions of 3 marks each.* ***Section D*** *has 02 case based question carries 4 marks each.* ***Section E*** *has 03 questions of 5 marks each.*

iv   *There is no overall choice. However, internal choices have been provided in some questions. A student has to attempt only one of the alternatives in such questions.*

v   *Wherever necessary, neat and properly labeled diagrams should be drawn.*
====================================

SECTION   A

1.   Choose an option that gives the correct number of pollen   1
      grains that will be formed after 325 microspore mother
      cells undergo microsporogenesis.
      a) 325
      b) 650
      c) 1300
      d) 975

2. Spermiation is the process of the release of sperms from   1
    a) Seminiferous tubules
    b) Vas deferens
    c) Epididymis
    d) Prostrate gland.

3. Medical terminancy of pregnancy is safe upto   1
    a) 8 weeks of pregnancy
    b) 12 weeks of pregnancy
    c) 18 weeks of pregnancy
    d) 24 weeks of pregnancy

4. Amniocentesis is a process to   1
    a) grow cells on culture medium
    b) determine an hereditary disease of the embryo
    c) know about the disease of the brain
    d) determine an disease of the heart.

5. ZZ/ZW type of sex determination is seen in   1
    a) platypus
    b) snails
    c) cockroach
    d) peacock

6. When an amino acid is coded by more than one codon, the   1
genetic code is
    a) Universal
    b) Punctuated
    c) Commaless
    d) Degenerate.

7. At which stage of evolution did human use hides to protect   1
their bodies and bur their dead?
    a) *Homo habilis*
    b) Neanderthal man
    c) Java man
    d) *Homo erectus*

8. ELISA technique is based on the technique   1
    a) DNA replication.
    b) Antigen and antibody interaction.
    c) Pathogen and antigen interaction.
    d) Antigen and antigen interaction.

9.   Bottled fruit juices from markets are cleaner than at home   1
      because of
          a) Antibiotics.
          b) Hormones.
          c) Enzymes.
          d) Filtration.
10.   What is not true about EcoRI?   1
          a) It recognises a palindromic sequence
          b) It is an endonuclease
          c) It is isolated from virus
          d) It can produce the same kind of sticky ends in
             different DNA molecules.
11.   GEAC stands for   1
          a) Genome Engineering Action Committee
          b) Ground Environment Action Committee
          c) Genetic Engineering Approval Committee
          d) Genetic and Environment Approval Committee.
12.   CryI endotoxins obtained   from *Bacillus thuringiensis*   1
      are effective against
          a) Bollworm
          b) Nematode
          c) Flies
          d) Mosquito
      **Question 13 to 16 consists of two statements-Assertion
      (A) and Reason (R) .Answer these questions selecting
      the appropriate options given below:**
          **a. Both A and R are true and R is the correct
             explanation of A.**
          **b. Both A and R are true but R is not the correct
             explanation of A.**
          c. A is true but R is false.
      d .A is false but R is true.
13.   Assertion:-The t RNA molecules possess anticodons.   1
      Reason:-Anticodons are required for RNA primers in
      DNA replication.

14	Assertion:-Interferons are glcoproteins which are produced b virally infected cells. Reason: - Interferons stimulate inflammation at the site of injury.	1
15	Assertion:-A small part of the activated sludge is pumped back into aeration tank. Reason:- It serves as an inoculum.	1
16	Assertion:-Plasmids are extra chromosomal DNA. Reason:-Plasmid are found in bacteria in eukaryotic cells.	1

SECTION B

17.	Which is the triploid tissue in a fertilized ovule? How is the triploid condition achieved?	2
18.	Why does corpus luteum secrete a large amount of progesterone during luteal/secretory phase of the menstrural cycle?	2
19.	What is a test cross? How can it decipher the heterozgosity of a plant?	2
20.	Comment on the similarity between the wing of a cockroach and the wing of a bird. What you infer from the above,with reference to evolution.?	2
21.	Explain palindromic sequence with the help of an example.	2

<div align="center">OR</div>

Why are molecular scissors so called? Write their use in Biotechnology.

SECTION C

22.	Draw a transverse section of a mature angiosperm and label its.	3
23.	Briefly explain the process of PCR.	3
24.	A DNA segment has a total of 1000 nucleotides, out of which 240 are adenine. Calculate how many pyrimidine bases are present?	3
25.	Describe briefly the various stages found in evolution of humans.	3

26.   Explain briefly the structure of an antibody.   3
27.   Enlist the characteristics of an ideal contraceptive.   3

                    OR

Briefly explain IVF and ET.

28.   How did the process of RNA interference help to control   3
        the nematode from infecting the roots of tobacco plants?
        Explain.

SECTION   D (Case Based)

29.   In Antirrhinum sp neither the Red nor the white is   4
        completely dominant.When these homozygous plant are
        crossed ,the F1 hybrid shows pink colour   demonstrating
        an intermediate phenotype.

a) What is a phenotype?   (1)

   b) Explain the phenomenon of Incomplete dominance
      with a cross (2)
   c) What are homozygous plants?(1)

                Or

   d) What is a genotype?(1)

30.   Cancer is one of the most dreaded diseases of mankind   4
        and is a major cause of death all over the globe. More than
        a million Indians suffer from cancer and a large number of
        them die annually. The mechanism that underlie
        development of cancer transformation of cells, its
        treatment and control have been some of the most intense
        areas of research in biology.

   a) What are benign tumours? (1)

   b) What are malignant tumours? (1)

   c) What is contact inhibition? (2)

Or

d) Mention some techniques by which cancer can be detected. (2)

SECTION E

31.   Explain the various events of the Menstrual cycle.   5

OR

Explain the human male reproductive system.

32.   Explain the regulation of lac operon.   5

OR

Explain Griffiths transformation experiment.

33.   Describe the process of waste water treatment under the   5
following heads:
    a) Primarys treatment
    b) Secondary treatment

OR

What are methanogens? Explain the working mechanism of a Biogas plant.

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BURNPUR RIVERSIDE SCHOOL, BURNPUR
HALF YEARLY EXAMINATION : [2025-2026]
ACCOUNTANCY
CLASS: XII

Time: 3 Hours   **Maximum Marks: 80**

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General Instructions:

1. This question paper contains 34 questions. All questions are compulsory.
2. Question 1 to 20 carries 1 mark each.
3. Question 21 to 26 carries 3 marks each.
4. Question 27 to 29 carries 4 marks each.
5. Question 30 to 34 carries 6 marks each.
6. There is no overall choice. However, internal choice of questions has been provided.
7. Students are requested to write the full answer for the multiple choice questions.

===

1. Out of the following, in which situation(s) the reconstitution of a firm takes place: 1
    a. At the time of change in the profit sharing ratio amongst the partners.
    b. At the time of admission of a new partner.
    c. Both (a) and (b)
    d. At the time of doing past adjustments.

    OR

    When goodwill is not purchased, goodwill account can;   1
    a. Never be raised in the books
    b. Be raised in the books
    c. Be partially raised in the books
    d. Be raised as per the agreement of the partners.

2. Given below are two statements, one labelled as Assertion (A) and the other labelled as Reason (R).   1
    Assertion (A): If there are eight partners in a firm, a new partner cannot be admitted even if one partner does not agree to this.
    Reason (R): A new partner can be admitted if majority of partners agree on his admission.

In the context of the above two statements, which of the following is correct?

Codes:

a. (A) and (R) both are correct and (R) correctly explains (A)

b. Both (A) and (R) are correct but (R) does not explain (A)

c. Both (A) and (R) are incorrect

d. (A) is correct but (R) is incorrect

<center>OR</center>

Assertion (A): A new partner becomes entitled to share future profits of the firm and also becomes liable for past losses of the firm.

Reason (R): A new partner acquires right in the assets and also becomes liable to any liability incurred by the firm after his admission.

1

Codes:

a. (A) and (R) both are correct and (R) correctly explains (A)

b. Both (A) and (R) are correct but (R) does not explain (A)

c. Both (A) and (R) are incorrect

d. (A) is correct but (R) is incorrect

3. On 1st January, 2023, Anik, a partner, advanced a loan of ₹3,00,000 to the firm. In the absence of a partnership agreement, the amount of interest all the loan for the year ending 31st March, 2023 will be

1

a. ₹ 18,000

b. ₹ 4,500

c. ₹ 900

d. No interest

<center>OR</center>

A and B are partners in a partnership firm without any agreement. A has given a loan of ₹ 50,000 to the firm. At the end of year loss was incurred in the business. Following interest may be paid to A by the firm:

1

a. @5% per annum

b. @6% per annum

c. @6% per month

d. Interest cannot be paid

4. A, B and C are partners sharing profits in the ratio of 5:2:1. If the new profit sharing ratio on retirement of A is 3:2, what will be the gaining ratio?   1
    a. 11:14
    b. 3:2
    c. 2:3
    d. 14:11

5. Realisation Account is a: 1
    a. Nominal Account
    b. Real Account
    c. Personal Account
    d. Real as well as Personal Account

6. Assertion (A): If A, B, C and D are partners, D's son will automatically become the new partner in case of D's death.   1
    Reason (R): D's son will become the new partner only if majority of the remaining partners agree to admit him into partnership.
    In the context of the above two statements, which of the following is correct?
    Codes:
    a. (A) and (R) both are correct and (R) correctly explains (A)
    b. Both (A) and (R) are correct but (R) does not explain (A)
    c. Only (R) is correct
    d. Both (A) and (R) are wrong

7. A and B are partners in a firm sharing profit and loss equally with the effect from 1st April, 2023 they agreed to share profits in the ratio of 4:3. Due to change in profit sharing ratio, A's gain or sacrifice will be: 1
    a. Gain 1/14
    b. Sacrifice 1/14
    c. Gain 4/7
    d. Sacrifice 3/7

8. A and B are partners sharing profit in the ratio 3:2. They admit C as a partner by giving him 1/3 share in future profits. The new ratio will be: 1
    a. 12:8:5
    b. 8:12:5
    c. 5:5:12
    d. None of the above

9. Subscribed capital is: 1
a. The part of the authorized capital which is issued to the public for subscription.
b. The part of issued capital which has been actually subscribed by the public.
c. The part of subscribed capital which has been called up the shares.
d. That part of subscribed capital which has not yet been called up on the shares.

10. Sleeping partners are those who: 1
a. take active part in the conduct of the business but provide no capital. However, salary is paid to them.
b. do not take any part in the conduct of the business but provide capital and share profits and losses in the agreed ratio.
c. take active part in the conduct of the business but provide no capital. However, share profits and losses in the agreed ratio.
d. do not take any part in the conduct of the business and contribute no capital. However, share profits and losses in the agreed ratio.

11. A, B and C are in partnership business. A used ₹2,00,000 1
belonging to the firm without the information to other partners and made a profit of ₹35,000 by using this amount. Which decision should be taken by the firm to rectify the transaction?
a. A need to return only ₹2,00,000 to the firm.
b. A is required to return ₹35,000 to the firm
c. A is required to pay back ₹35,000 only equally to B and C
d. A need to return ₹2,35,000 to the firm

12. X and Y are partners sharing profit and losses in the ratio of 3:2. 1
They admit Z in to partnership with 1/5ᵗʰ share of profit, which he acquires equally from X and Y. Z brings in ₹40,000 as goodwill in cash. Goodwill amount will be credited,
a. X ₹ 20,000 and Y ₹ 20,000
b. X ₹ 25,000 and Y ₹ 15,000
c. X ₹ 24,000 and Y ₹ 16,000
d. X ₹ 4,000 and Y ₹ 4,000

13. Aditya, Vishesh and Nimesh were partners in firm sharing profit   1
and losses equally. Aditya died on 1st July, 2023. Remaining
partners decided to share future profits in the ratio of 4:3. The
gaining ratio of Vishesh and Nimesh will be
a. 4:3
b. 3:2
c. 5:2
d. 1:1

14. Assertion (A): Issued share capital and subscribed share capital   1
are always different.
Reason (R): Subscribed share capital is a part of issued share
capital. Thus, it will always be different from issued share capital.
In the context of the above two statements which of the following
is correct?
Codes:
a. (A) and (R) both are correct and (R) correctly explains (A)
b. Both (A) and (R) are correct but (R) does not explain (A)
c. Both (A) and (R) are incorrect
d. (A) is correct but (R) is incorrect

15. On the date of dissolution, the firm has debtors amounting to   1
₹3,00,000 and provision for doubtful debts of ₹30,000. Debtors
for ₹ 20,000 proved bad and the remaining debtors are realised
90%. Amount realised from the debtors will be:
a. ₹3,00,000
b. ₹ 2,25,000
c. ₹ 2,80,000
d. ₹ 2,52,000

OR

P a partner is to bear all the expenses of realisation for which he is   1
to be paid ₹ 2,000. P had to pay registration expenses of ₹ 2,500.
How much amount will be debited to Realisation Account?
a. ₹ 500
b. ₹ 2,500
c. ₹ 4,500
d. ₹ 2,000

16. Which of the following items cannot be recorded in the Profit and   1
loss Appropriation Account?
a. Interest on capital   b. Interest on drawings

c. Rent Paid to partners   d. Partners salary

17. Capital employed by a partnership firm is ₹5,00,000. If average profit is ₹60,000. The normal rate of return is similar type of business is 10%. What is the amount of super profit? **1**
    a. ₹ 50,000
    b. ₹ 10,000
    c. ₹ 6,000
    d. ₹ 56,000

18. A company issued 4000 equity shares of ₹ 10 each at par payable under application ₹3, on allotment ₹2, on first call ₹4 and final call ₹1 per share. **1**
    Applications were received for 10,000 shares. Allotment was made pro-rata. How much amount will be received in cash on allotment?
    a. ₹ 8,000
    b. ₹ 12,000
    c. NIL
    d. None of the above

19. In the event of dissolution of the firm, the partners personal assets are first used for payment of the, **1**
    a. Firm's Liability
    b. The personal Liability
    c. None of the two
    d. Any of the two

20. The principal amount of the debentures will be repaid by the company either at the end of a specified period or by instalments during the life time of the company. Such type of debentures are called: **1**
    a. Redeemable Debentures
    b. Irredeemable Debentures
    c. Convertible Debentures
    d. Bearer Debentures

21. BGP Ltd. invited applications for issuing 15,000, 11% debentures of ₹100 each at premium of ₹50 per debentures. The full amount was payable on application. Applications were received for 25,000 debentures. Applications for 5,000 debentures were rejected and the applications money was refunded. Debentures were allotted to the remaining applications on pro-rata basis. Pass necessary journal entries for the above transactions in the books of BGP Ltd. **3**

22. B and C are partners in a firm sharing profit and losses in the ratio   3
of 4:3. They admitted D as a new partner for 1/4th share in the
profits which he acquired from B and C in 3:4 ratio. D brought ₹
1,80,000 for his capital and ₹42,000 for his 1/4th share in
goodwill. Calculate new profit sharing ratio of B,C and D and
pass necessary journal entries for the above transaction on D's
admission in the books of the firm.

<div align="center">OR</div>

A and B are partners sharing profit and losses in the ratio of 3:2.   3
They admit C in to the firm for 3/7th profit which he takes 2/7th
from A and 1/7th from B. C brings ₹60,000 for his share of
goodwill and ₹2,00,000 for his capital.
Give necessary Journal Entries. Also calculate new profit sharing
ratio.

23. Akshra and Saniksha are in partnership. Business is being carried   3
from the property owned by Akshra on a monthly rent of ₹5,000.
Akshra is entitled to a salary of ₹4,000 per quarter and Samiksha
is to get commission of 4% on net sales, which during the year
was ₹50,00,000. Net profit for the year ended 31st March, 2024
before providing for rent was ₹6,00,000.
You are required to prepare Profit and Loss Appropriation
Account for the year ended 31st March, 2024.

24. From the figures given below, calculate goodwill according to the   3
capitalisation of average profit method.

Actual Average Profit	₹72,000
Normal Rate of return	10%
Assets	₹9,70,000
Outside Liabilities	₹4,00,000

<div align="center">OR</div>

The profit earned by a firm after retaining INR 15,000 to its   3
reserve was ₹75,000. The firm had total tangible assets worth INR
10,00,000 and outside liabilities ₹3,00,000. The value of the
goodwill as per capitalisation of average profit method was valued
of ₹50,000. Determine the normal rate of return.

25. Differentiate between Dissolution of Partnership and Dissolution   3
of Firm.

26. C Ltd. forfeited 800 shares of INR10 each, issued at 30%   3
premium (paid with the allotment money) for the non-payment of
the first call of ₹2 per share. The second and final call of ₹2 has
not been called yet. Out of these, 200 shares were reissued as ₹8

paid per share. Give journal entries for forfeiture and reissue of shares.

27. Archie and Charu are partners sharing profits in 2:1. Their balance sheet showed Machinery at ₹4,00,000; stock ₹4,50,000; Debtors ₹3,70,000 and creditors ₹2,20,000. They admit Poorvi as a new partner and new profit sharing ratio is agreed at 4:3:3. It was agreed that,

i. Stock was undervalued by 10%

ii. Debtors amounting to ₹10,000 are irrecoverable and provision for doubtful debt be created @5%.

iii. Creditors are unrecorded to the extent of ₹30,000.

Archies loss on revaluation amounted to ₹32,000. Calculate the revalued value of machinery with the help of revaluation account.   4

28. A, B, C and D are partners in a firm sharing profits and losses in the ratio of 2:2:1:1. They decided to share profits in future in the ratio of 4:3:2:1. For the this purpose goodwill of the firm was valued at ₹1,80,000. There was also a reserve of ₹60,000 in the books of the firm. Find out sacrifice and gaining ratio and pass necessary journal entries assuming that partners do not want to distribute the reserve.   4

29. On 02.03.2016, L and B Ltd. issued 635, 9% debentures of 500 each.

Pass necessary journal entries for the issue of debentures when debentures were issued at 5% discount, redeemable at 10% premium.   4

30. Gini, Bini and Mini were partners in a partnership sharing profit and losses in the ratio of 5:2:2. Their Balance Sheet as at 31st March, 2021 was as follows: 6

Balance Sheet as at 31st March, 2021

Liabilities	Amount	Assets	Amount
Sundry Creditors	56,500	Cash	1,17,300
Bank Overdraft	61,500	Debtors 38,000	
Workmen		Less:Provision 2,300	35,700
Compensation	32,000	Inventories	1,34,000
reserve		Machinery	1,00,000
Capitals:		Furniture	1,80,000
Gini 4,60,000		Building	5,70,000
Bini 3,00,000		Goodwill	63,000
Mini 2,90,000	10,50,00		
	12,00,000		12,00,000

On 31st March, 2021, Gini retired from the firm. All the partners agreed to revalue the assets and liabilities on the following basis.

i. Bad debts amounted to ₹5,000. A provision for doubtful debts was to be maintained @10% on debtors.

ii. Goodwill of the firm was valued at ₹54,000 and be adjusted into the capital accounts of Bini and Mini, who will share profits in future in the ratio of 5:4.

iii. The assets and liabilities valued as, Inventories ₹ 1,30,000, Machinery ₹82,000, Furniture ₹1,95,000 and Building ₹6,00,000.

iv. Liabilities of ₹23,000 is to be created on account of claim for workmen compensation.

v. There was an unrecorded investments in share of ₹25,000. It was decided to pay of Gini by giving her unrecorded investment in full settlement of her past payment of ₹28,000 and remaining amount after two months.

Prepare revaluation account and partners' capital accounts as on 31st March, 2021.

31. Akum and Bakum are partners sharing profit and losses in the ratio of 3:2. The Balance Sheet of the firm on 31st March, 2023 as follows:　　6

Liabilities	Amount	Assets	Amount
Creditors	60,000	Cash in Hand	10,000
Bills Payable	20,000	Debtors	70,000
Employees		Stock	70,000
Provident Fund	50,000	Plant and Machinery	40,000
Reserve Fund	20,000	Building	80,000
Capitals:		Profit and Loss A/C	20,000
Akum　　90,000		Loan to Rajan	20,000
Bakum　　70,000	1,60,000		
	3,10,000		3,10,000

The partners decided to dissolve the firm. Assets are realised as Follows:

i) Debtors realised ₹60,000

ii) Akum took away the machinery at the agreed value of ₹30,000.

iii) Bakum takes over the building at a valuation of ₹1,00,000 and agrees to pay off creditors at a discount of ₹5,000.

iv) An unrecorded liability of ₹20,000 was discharged by unrecorded assets of ₹35,000 in full settlement.

v) The expenses of realisation came to ₹5,000 and were paid by Bakum, however as per agreement they were to be borne by Akum.

Prepare Realisation Account and show your workings clearly.

32. Anshika Ltd. invited applications for 2,00,000 equity shares of ₹10 each at a premium of ₹4 per share. The amount was payable as follows: 6

On Application: ₹6 (including premium of 2)
On Allotment: ₹7 (including premium of 2)
Balance on the first and final call.

Applications for 3,00,000 shares were received. Allotment was made to the applicants on pro rata basis.

Mehak, to whom 400 shares were allotted failed to allotment and call money.

Khusboo, who applied for 300 shares failed to pay the call money. Their shares were forfeited after the final call. 400 of the forfeited shares (including all shares of Khusboo) were reissued @8 per share as fully paid up.

Pass Necessary journal entries by opening calls in Arear Account.

<div align="center">OR</div>

KS Ltd. invited applications for issuing 1,60,000 equity shares of ₹10 each at a premium of ₹ 6 per share. The amount was payable as follows: 6

On Application - ₹4 (₹1 premium included)
On Allotment - ₹6 (₹3 premium included)
On First and Final Call – Balance

Application for 3,20,000 shares were received. Application for 80,000 shares were rejected and application money was refunded. Shares were allotted on pro-rata basis to the remaining applicants. Excess money received with applications was adjusted towards the sums due on allotment. Jain holding 800 shares, failed to pay the allotment money. His shares were forfeited immediately after allotment. Afterwards the final call was made.

Gupta who had applied for 1,200 shares failed to pay the final call money. These shares were also forfeited. Out of the forfeited shares 1,000 shares were reissued at ₹8 per share fully paid up. The reissued shares included all the forfeited shares of Jain. Assuming that the company maintains calls in Arrears Accounts, pass necessary journal entries for the above transactions in the books of KS Ltd.

33. Madhuri and Arsh were partners in a firm sharing profits and losses in the ratio of 3:1. Their balance sheet as at 31st March, 2019 was as follows: 6

Balance Sheet of Madhur and Arsh
as at 31st March, 2019

Liabilities	Amount	Assets	Amount
Capitals:		Machinery	4,70,000
Madhuri 3,00,00		Debtors 1,20,000	
Arsh 2,00,00	5,00,000	Less:Provision 10,000	1,10,000
Workmen		Stock	1,40,000
Compensation		Cash	30,000
Reserve	60,000		
Creditors	1,90,000		
Employees			
Provident Fund	1,10,000		
	8,60,000		8,60,000

On 1st April, 2019 they admitted Jyoti into partnership for 1/4th share in the profits of the firm. Jyoti brought proportionate capital and ₹40,000 as her share of goodwill in premium.

The following terms were agreed upon.

i. Provision for doubtful debts was to be maintained at 10% of debtors.

ii. Stock was undervalued by ₹10,000.

iii. An old customer whose account of ₹25,000 was written off as bad debt, paid ₹15,000 in full settlement.

iv. 20% of the investments were taken over by Arsh at book value.

v. Claim on Workmen compensation amounted to ₹70,000.

vi. Creditors included a sum of ₹27,000 which was not likely to be claimed.

Prepare Revaluation Account and Partners Capital Account of the reconstituted firm.

OR

Hari and Kavi are partners sharing profit and losses in the ratio of 3:2. They admit Ravi as a partner who contributes ₹30,000 as his capital for 1/5th share in profits of the firm. It was decided that after Ravi's admission the capital of the Hari and Kavi will be adjusted on the basis of Ravi's share of capital in the business, any surplus or deficiency to be adjusted through current accounts.   6

Before adjustments were made, the capitals of Hari and Kavi were ₹59,000 and ₹35,000 respectively.

At the time of Ravi's admission

i. Firms goodwill was valued at ₹40,000.

ii. General Reserve was ₹25,000.

iii. Loss on Revaluation of assets and liabilities was ₹4,000.

You are required to pass necessary journal entries at the time admission.

34. Amay, Anmol and Rohan entered into partnership on 1st July, 2021 to share profit and losses in the ratio of 3:2:1. Amay guaranteed that Rohan's share of profit after charging interest on capital @6% would not be less than ₹36,000 p.a. Their fixed capital balances are ₹2,00,000; ₹1,00,000 and ₹1,00,000 respectively. Profit for 31st March 2022 was ₹1,38,000. Prepare Profit and Loss Appropriation Account. 6

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Name: _____ Sec: ____ Roll No.: ____

<div align="right">

CODE: B
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BURNPUR RIVERSIDE SCHOOL, BURNPUR
HALF YEARLY EXAMINATION : [2025-2026]
ACCOUNTANCY
CLASS: XII

Time: 3 Hours   Maximum Marks: 80

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General Instructions:

1. This question paper contains 34 questions. All questions are compulsory.
2. Question 1 to 20 carries 1 mark each.
3. Question 21 to 26 carries 3 marks each.
4. Question 27 to 29 carries 4 marks each.
5. Question 30 to 34 carries 6 marks each.
6. There is no overall choice. However, internal choice of questions has been provided.
7. Students are requested to write the full answer for the multiple choice questions.

===

1. At the time of change in Profit sharing ratio among existing partners, "Reserve" are transferred to Partners capital Accounts in the following Ratio: 1
   a. Sacrificing Ratio
   b. Gaining Ratio
   c. Old Profit Sharing Ratio
   d. New Profit sharing Ratio

<div align="center">OR</div>

   When Goodwill is not purchased, goodwill account can,   1
   a. Never be raised in the books
   b. Be raised in the books
   c. Be partially raised in the books
   d. Be raised as per the agreement of the partners.

2. Assertion (A): Admission of a partner is one of the modes of reconstitution of the partnership firm where by partnership ceases to exist and a new partnership come in to existence.   1
   Reason (R): In case of admission of a partner number of partners increases and a result profit sharing ratio also changes. But, the firm continues. As such, it is reconstitution of partnership

Codes:

a. (A) and (R) both are correct and (R) correctly explains (A)

b. Both (A) and (R) are correct but (R) does not explain (A)

c. Both (A) and (R) are incorrect

d. (A) is correct but (R) is incorrect

OR

Assertion (A): A new partner becomes entitled to share future profits of the firm and also becomes liable for past losses of the firm.

Reason (R): A new partner acquires right in the assets and also becomes liable to any liability incurred by the firm after his admission.

Codes:

a. (A) and (R) both are correct and (R) correctly explains (A)

b. Both (A) and (R) are correct but (R) does not explain (A)

c. Both (A) and (R) are incorrect

d. (A) is correct but (R) is incorrect

3. A and B are partners in a partnership firm without any agreement. A withdrew ₹50,000 out of his capital as drawings. Interest on drawings may be charged from A by the firm.

a. @5% per annum

b. @6% per annum

c. @6% per month

d. Interest cannot be paid

OR

A and B are partners in a partnership firm without any agreement. A has given a loan of ₹ 50,000 to the firm. At the end of year loss was incurred in the business. Following interest may be paid to A by the firm:

a. @5% per annum

b. @6% per annum

c. @6% per month

d. Interest cannot be paid

4. P,Q and R are partners sharing profit and losses in the ratio of 5:4:3. Q retires, P and R decides to share profit equally. Gaining Ratio will be:

a. 5:3

b. 1:1

c. 1:3

d. 3:1

5. In the event of dissolution of firm, the partner's personal assets and liabilities are first used for payment of the:
   a. Firms liability
   b. The personal liability
   c. None of the two
   d. Any of the two

   1

6. Assertion (A): In case of retirement of a partner, goodwill is credited to all the partners capital accounts in the old ratio.
   Reason (R): In case of retirement of a partner his share of goodwill is credited to retiring partners capital account and debited to continuing partners in their sacrificing ratio.
   Codes:
   a. (A) and (R) both are correct and (R) correctly explains (A)
   b. Both (A) and (R) are correct but (R) does not explain (A)
   c. Both (A) and (R) are incorrect
   d. (A) is correct but (R) is incorrect

   1

7. A and B are partners in a firm sharing profit and loss equally with the effect from 1st April, 2023 they agreed to share profits in the ratio of 4:3. Due to change in profit sharing ratio, A's gain or sacrifice will be:
   a. Gain 1/14
   b. Sacrifice 1/14
   c. Gain 4/7
   d. Sacrifice 3/7

   1

8. Ashu and Basu are partners sharing profit and losses in the ratio of 2:1. Chetan is admitted as a new partner with 1/4th share in profirs which he acquires equally from Ashu and Basu. The new profit sharing ratio between Ashu, Basu and Chetan will be:
   a. 13:5:6
   b. 13:2:1
   c. 2:13:5
   d. 1:1:1

   1

9. Nominal share capital is:
   a. that part of authorised capital which is issued by the company.
   b. the amount of capital which is usually applied by the prospective shareholders.
   c. the amount of share capital which is actually paid by shareholders.
   d. that part of subscribed capital which has not yet been called up on the shares.

   1

10. The relation of partner with the firm is that of: 1
   a. An owner
   b. An agent
   c. An owner as well as agent
   d. Manager

11. X, Y and Z are partners sharing profit and losses equally. Their 1
   capital balances on 31st March, 2024 are ₹80,000; ₹60,000;
   ₹40,000 respectively. Their personal assets are worth as follows:

   X- ₹ 20,000
   Y- ₹ 15,000
   Z- ₹ 10,000

   The extent to their liability would be:
   a. X-₹80,000; Y- ₹60,000; Z- ₹ 40,000
   b. X-₹20,000; Y- ₹15,000; Z- ₹ 10,000
   c. X-₹1,00,000; Y- ₹ 75,000; Z-₹ 50,000
   d. Equal

12. A and B are partners sharing profit and losses in the ratio of 3:2. C 1
   is admitted as partner for 1/5th share in the profits. He pays
   ₹1,00,000 as goodwill. The ratio of the partners A, B and C in the
   new firm would be 3:1:1. Goodwill will be credited to
   a. Only A ₹ 1,00,000
   b. Only B ₹ 1,00,000
   c. A ₹60,000, B ₹40,000
   d. A ₹75,000, B ₹25,000

13. Anju, Diva and Bobby were partners in a firm sharing profit and 1
   losses in the ratio3:2:1. Bobby retired and the new profit sharing
   ratio between Anju and Diva was 5:3. The gaining ratio between
   the remaining partners would be:
   a. 3:2
   b. 5:3
   c. 3:1
   d. 2:3

14. Assertion (A): A share is considered to be a movable property. 1
   Reason (R): A share can be purchased or sold in a stock exchange
   in case of a listed company.
   Codes:
   a. (A) and (R) both are correct and (R) correctly explains (A)
   b. Both (A) and (R) are correct but (R) does not explain (A)
   c. Both (A) and (R) are incorrect
   d. (A) is correct but (R) is incorrect

15. On the date of dissolution, the firm has debtors amounting to ₹3,00,000 and provision for doubtful debts of ₹30,000. Debtors for ₹20,000 proved bad and the remaining debtors realised at 90%. Amount realised from the debtors will be;   1

    a. ₹3,00,000

    b. ₹2,25,000

    c. ₹2,80,000

    d. ₹2,52,000

<div align="center">OR</div>

   P a partner, is to bear all expenses of realisation for. Which he is to be paid ₹2,000. P had to pay realisation expenses of ₹2,500. How much amount will be debited to realisation account?   1

    a. ₹500

    b. ₹2,500

    c. ₹4,500

    d. ₹2,000

16. Interest on partners loan is credited to: 1

    a. Partner's Fixed Capital Account

    b. Partner's Current Account

    c. Partner's Loan Account

    d. Partner's Drawings Account

17. Tangible Assets of the firm are ₹14,00,000 and outside liability are ₹4,00,000. Profit of the firm is ₹1,50,000 and the normal rate of return is 10%. The amount of capital employed will be: 1

    a. ₹10,00,000

    b. ₹1,00,000

    c. ₹50,000

    d. ₹20,000

18. A company issued 5,000 equity shares of ₹100 each at par payable as to ₹40 on application; ₹50 on allotment and ₹10 on call. Application were received for 8,000 shares. Allotment was made on pro-rata basis. How much amount will be received in cash on allotment?   1

    a. ₹2,50,000

    b. ₹1,20,000

    c. ₹1,30,000

    d. ₹50,000

19. On dissolution, goodwill account is transferred to.   1
    a. In the capital accounts of partners
    b. on the credit of cash account
    c. on the debit of realisation account
    d. on the credit of realisation account

20. The debentures whose principal amount is not payable by the   1
    company during its life time, but the payment is made only at the
    time of liquidation of the company, such debentures are called:
    a. Bearer Debentures
    b. Redeemable Debentures
    c. Irredeemable Debentures
    d. Non-convertible Debentures

21. On 1.4.2021, Y Ltd. invited applications for issuing 10,000, 9%   3
    debentures of ₹100 each of a discount of 6%. The entire amount
    payable with applications. Applications for 12,000 debentures were
    received. Debentures were allotted on pro-rata basis to all the
    applicants. Excess money received with applications was refunded.
    On 31.03.2022 the company decided to write off discount on issue
    of debentures according the provisions of the companies Act 2013.
    On that date company had ₹10,000 in its securities premium
    account.
    Pass necessary journal entries for the above transactions in the
    books of the company.

22. A and B are partners in a firm, sharing Profits and losses in the   3
    ratio of 3:2. Their capital are ₹1,80,000 and ₹1,40,000 respectively.
    They admit X in partnership on the conditions that he will bring
    ₹67,500 as goodwill and ₹1,50,000 as capital and will get 1/4th
    share in the profits of the firm. Assuming that the capital and
    goodwill will have been brought in cash by the new partner. Pass
    the necessary journal entries and find out new profit sharing ratio
    of the partners assuming goodwill is retained in the firm.
                                    OR
    A and B are partners sharing profit and losses in the ratio of 3:2.   3
    They admit C in to the firm for 3/7th profit which he takes 2/7th
    from A and 1/7th from B. C brings ₹60,000 for his share of
    goodwill and ₹2,00,000 for his capital.
    Give necessary Journal Entries. Also calculate new profit sharing
    ratio.

23. A and B are partners in a firm. On 1st April, 2023 their respective capitals were ₹3,00,000 and ₹2,00,000 respectively. On 1st October, 2023 A granted a loan of ₹50,000 to the firm. B had allowed the firm to use his property for business for a monthly rent ₹ 10,000.

The partnership deed provides that interest on capital will be allowed @9% p.a. and allowed on annual salary of ₹1,00,000.

The firm incurred a loss of ₹28,500 for the year ended 31st March 2024 before any adjustment is made according to the partnership deed.

Prepare an account showing the distribution of profit or loss.

3

24. Varun and Kuber are partners in a business. Balance in the capital accounts and current accounts on 31st March,2023.

	Capital Accounts	Current Accounts
Varun	₹5,00,000	₹80,000
Kuber	₹3,00,000	₹20,000(Dr.)

Average profit of the last 5 years is ₹1,20,000.

General Reserve appeared in the books of ₹70,000 and Profit and loss A/C (Dr.) 20,000.

If the normal rate of return is 10%. Find the value of the goodwill by capitalisation of Average Profit.

3

OR

The profit earned by a firm after retaining INR 15,000 to its reserve was ₹75,000. The firm had total tangible assets worth INR 10,00,000 and outside liabilities ₹3,00,000. The value of the goodwill as per capitalisation of average profit method was valued of ₹50,000. Determine the normal rate of return.

3

25. Differentiate between Realisation Account and Revaluation Account.

3

26. Star Ltd. took over the following assets and liabilities of Versa Ltd. Land and Building of ₹60,00,000(Book Value ₹45,00,000); Plant and Machinery ₹30,00,000 of ₹25,00,000 and liabilities of ₹3,00,000. Purchase consideration was ₹78,00,000. Payment was made by acceptance of ₹15,00,000 in favour of Versa Ltd. payable after 3 months and the balance by issue of 7%. Preference shares of ₹100 each of ₹105. Pass Necessary journal entries in the books of Star Ltd.

3

27. Archie and Charu are partners sharing profit in 2:1. Their balance sheet showed Machinery of ₹4,00,000; stock ₹4,50,000; Debtors ₹3,70,000 and Creditors ₹ 2,20,000. They admit Poorvi as a partner and new sharing ratio is agreed at 4:3:3. It was agreed that: 4

i. Stock is undervalued by 10%.

ii. Debtors amounting to ₹10,000 are irrecoverable and provision for doubtful debts be created @5%.

iii. Creditors were unrecorded to the extent of ₹30,000.

Archies share in loss on revaluation amounted to ₹32,000.

Calculate the value of the revalued machinery.

28. A, B and C are partners sharing profit and losses in the ratio of 2:3:4. They decided to share future profit and losses in the ratio of 4:3:2. They also decided to record the effect of the following without affecting their books values. 4

General Reserve	₹40,000
Profit and Loss A/C	₹20,000
Advertisement Suspense A/C	₹15,000

You are required to give the necessary single Journal entries.

29. Venus Ltd. took over assets of ₹10,00,000 and liabilities of ₹18,00,000 of Cayns Ltd. for ₹7,60,000. Venus Ltd. issued 9% debentures of ₹100 each at a discount of 5% in full satisfaction of the purchase consideration in favour of Cayns Ltd. Pass necessary journal entries in the books of Venus Ltd. for the above transactions. Venus Ltd. writes off all the capital losses in the first year itself. 4

30. Ram, Rahim and Robert were partners sharing profit and losses in 2:3:1 ratio respectively. Due to illness Robert died on 30th September, 2021. The Balance Sheet of Ram, Rahim and Robert on 31st March, 2021 was as follows: 6

Balance Sheet as at 31.03.2021

Liabilities		Amount	Assets	Amount
Capitals:			Cash	14,000
Ram	1,00,000		Bank	2,9,000
Rahim	2,00,000		Stock	80,000
Robert	3,00,000	6,00,000	Debtors	3,00,000
Creditors		3,60,000	Investments	50,000
Workmen			Land	2,50,000
compensation				
Reserve		20,000		
Provision for d/d		10,000		
		9,90,000		9,90,000

On the date of Robert's death, i.e 30th September, 2021 the following was agreed upon.
i. Goodwill is to be valued at two years purchase of average profit of last three years.

2018-19	₹45,000
2019-20	₹90,000
2020-21	₹1,35,000

 ii. Robert share of profit till the date of his death will be calculated on the basis of average profit of the past three years.
iii. Land was undervalued by ₹25,000 and stock was overvalued by ₹8,000.
iv. Provision for doubtful debts is to be made at 5% of the debtors.
v. Claim of workmen compensation was estimated at ₹5,000.
Prepare revaluation Account and capital accounts of Robert showing your workings clearly.

31.   Sunny and Bobby were partners in a firm sharing profit and losses   6
in the ratio 3:2, their Balance Sheet as at 31st March, 2012.

Assets	Amount	Liabilities	Amount
Creditors	1,90,000	Bank	5,000
Bills Payable	1,10,000	Fixed Deposits	70,000
Employees		Stock	86,000
Provident Fund	50,000	Investments	1,04,000
Mrs. Sunny Loan	55,000	Debtors 1,77,000	
Bobby's Loan	85,000	Less:Provision 12,000	1,65,000
Investment		Other Fixed Assets	3,80,000
Fluctuation Fund	30,000	Deferred Revenue	
Capitals:		Expenditure	35,000
Sunny 2,20,000		Sunn's Loan	15,000
Bobby 1,20,000	3,40,000		
	8,60,000		8,60,000

 The firm was dissolved on 31st March, 2012. The assets were realised and the liabilities were paid as under:
i. Sunny Promised to pay off the Mrs. Sunny's Loan
ii. Bobby took away stock at 20% discount and 80% of the investment at 10% discount
iii. Dharam, a debtor of ₹60,000 had to pay the amount due 2 months after the date of dissolution. He was allowed a discount of 9% p.a. for making immediate payment.
iv. Creditors were paid ₹1,75,000 in full settlement of their claim.
v. 90% of other fixed realised ₹1,98,000 and remaining were realised of discount 15%.

vi. Balance of investments were sold at 75% value and fixed deposits were realised at 110%.

vii. There was an old furniture which has been written off completely from the books, Booby took away the same for ₹41,000 against his loan and the balance was paid in cash.

viii. Realisation expenses ₹20,000 were paid by Sunny and Bobby equally on behalf of the firm.

You are required to prepare Realisation Account.

32. Rathee Ltd. invited applications for issuing 1,00,000 equity shares of ₹10 each. The shares were issued at a premium of 60%. The amount was payable as follows:

On application and allotment: ₹6 (including premium ₹4)
Application for 1,90,000 shares were received. The allotment was made as follows.

i. Category A: Applications for 10,000 shares were rejected.
Category B: Applications for 1,00,000 were given 50,000 shares.
Category C: Applications for 80,000 shares were allotted 50,000 shares.

Excess money received on application and allotment was adjusted towards sum of first and final call.

Ali, belong to category B, and had applied for 1,000 shares, paid the entire amount of his share money with applications.

Bali, who belongs to category C, was allotted 1,000 shares, failed to pay the first and final call money. His shares were forfeited and re-issued at ₹15 per share fully paid up.

Pass necessary journal entries for the above transactions in the books of Rathee Ltd.

6

OR

Konark Ltd. invited application for issuing 3,00,000 shares of ₹10 each. The amount per share was payable as follows, ₹3 on application; ₹3 on allotment and ₹4 on first and final call.

The company received applications for 4,00,000 shares. Allotment was done as follows.

i. Applications for 2,40,000 shares were allotted 2,00,000 shares.
ii. applications for 1,20,000 shares were allotted 80,000 shares.
iii. Remaining applicants were allotted 20,000 shares.

Money overpaid on applications was adjusted towards the sum due on allotment. Divij, a shareholder, belonging to group (ii) who had applied for 6,000 shares, failed to pay allotment and call money.

6

Faisal another shareholder, who was allotted 10,000 shared paid the call money along with allotment.

Faisal belong to category (i).

Divij's shares were forfeited after the first and final call. Half of the forfeited shares were re-issues @10 per shares fully paid.

Pass necessary journal entries assuming that the company maintained a calls in arear account.

33. A and B are partners in a firm. Their Balance sheet as at 31st March, 2025 was follows.

6

Liabilities		Amount	Assets	Amount
Capitals:			Cash	10,000
A-	50,000		Sundry Debtors	80,000
B-	60,000	1,10,000	Stock	20,000
Creditors		15,000	Fixed Assets	3,86,000
O/S Expenses		3,000	Profit and Loss A/c	4,000
Insurance Fund		7,000		
Provident Fund		1,000		
Employees Savings fund		5,000		
Workmen Profit sharing fund		2,000		
Workmen compensation reserve		5,600		
Provision for d/d		4,000		
		1,52,600		1,52,600

C was taken into partnership as from 01.04.2025 on the following terms for 1/6th shares.

i. C will bring ₹40,000 as his capital.

ii. Goodwill is valued at ₹12,000 and admitting partner is unable to bring his share of goodwill.

iii. Claim on account of workmen compensation is ₹3,000

iv. Creditors are to be paid ₹2,000 more.

v. 2% provision for discount on debtors is required.

vi. The share of A in new firm will be 3/2 times of B.

Prepare Revaluation Account and Partners Capital Account.

OR

On 31st March, 2022 the Balance Sheet of partners A and B sharing profit and losses in the ratio of 3:2 was a follows.

6

Balance Sheet of A and B
as at 31st March, 2022

Liabilities	Amount	Assets		Amount
Creditors	30,000	Cash at Bank		20,000
Investment		Debtors	85,000	
Fluctuation Reserve	12,000	(-)Provision	5,000	80,000
General Reserve	25,000	Stock		1,30,000
Capitals:		Investments		60,000
A- 1,60,000		Furniture		77,000
B- 1,40,000	3,00,000			
	3,67,000			3,67,000

On 1st April, 2022 they decided to admit C as a new partner for 1/5th share in the profits in the following terms:

i. C brought ₹1,00,000 as his capital and ₹50,000 as share in the premium for goodwill.

ii. One month salary ₹2,000 was outstanding

iii. The market value of investments was ₹50,000.

iv. A debtors, who dues were written off as bad debts paid ₹12,000 in full settlement.

Prepare Revaluation and Partners Capital Account.

34.   Akhil and Nikhil were partners sharing profit and losses in the ratio   6 of 3:2. Their Fixed capitals were ₹1,00,000 and ₹80,000 respectively. Interest on capital was agreed @6% p.a. Nikhil was to be allowed an annual salry of ₹9,200. During the year 2021-22 the net profit prior to calculation of interest on capital and after charging Nikhils salary amounted to ₹1,20,000. Prepare profit and loss appropriation account of the firm for the year ended 31st March, 2022.

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Name: _____   Sec: ____   Roll No.: ____

BURNPUR RIVERSIDE SCHOOL, BURNPUR
HALF YEARLY EXAMINATION: [2025-2026]
BUSINESS STUDIES
CLASS: XII

Time: 3 Hours   **Maximum Marks: 80**

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General Instruction:

Read the following instructions very carefully and strictly follow them:
  *(i)   This question paper contains **34** questions.*
  (ii)   Marks are indicated against each question.
  (iii)   Answers should be brief and to the point.
  *(iv)   Answers to questions carrying **3** marks may be from 50 to 75 words.*
  *(v)Answers to questions carrying **4** marks may be in about 150 words.*
  *(vi)   Answers to questions carrying **6** marks may be in about 200 words.*
  (vii)   Attempt all parts of a question together.

==

1.   Sort-IT limited is a leading software development company.   1
        The company is satisfying the diverse needs of its employees.
        Its employees are given competitive salaries and perks.
        They have been given chance for their personal growth and
        development. For harmony in the organization management
        has to reconcile personal goal with organization objectives.
        Identify the objective of management being made by the
        company
         (a) Social   (b) Personnel
         (c) Organisational   (d) Both social and personnel

2.   It can be defined as a process that initiate implementation of   1
        plans by clarifying jobs and working relationship and
        effectively deploying resources for attainment of identified and
        desired results.
        Identify the function of management stated above:
         (a)Staffing   (b) Controlling
         (c) Organising   (d) Directing

3.   Statement I: Environment is a complex phenomenon that is   1
      relatively easier to understand in parts but difficult to grabs in
      its totally.
      Statement II: Frequent environmental changes in the field of
      technology and fashion industry are related with uncertainty of
      business environment.
      (a) Statement I is correct and statement II is incorrect
      (b) Statement II is correct and statement I is incorrect
      (c) Both the statements are correct
      (d) Both the statements are incorrect
4.   Identify the reason from the following, why principles of   1
      management do not provide readymade solution to all
      managerial decisions?
      (a) Because they provide general guidelines to the managers
      (b) Because they are evolved or developed by personal
      experience of the managers
      (c) Because management principles are ethical in nature
      (d) All of the above
5.   Statement I: Planning requires application of the mind   1
      involving foresight, intelligent, imagination and sound
      judgement.
      Statement II: Monitoring the plans is equally important to
      ensure that objectives are achived.
      (a) Statement I is correct and statement II is incorrect
      (b) Statement II is correct and statement I is incorrect
      (c) Both the statements are correct
      (d) Both the statements are incorrect
6.   Mr. Kapil, an educationist found that the teacher has to travel   1
      long to attend the workshops and loose the opportunity to gain
      the knowledge on updates.
      He listed various alternative and finally developed an app
      which could work on mobile and laptop to launch online
      sessions.

Suggest which next step should he follow:

(a) Developing premises

(b) Identifying that alternatives course of actions

(c)Implementation of plan

(d) Follow up action

7.

Identify the dimension of business from given picture:

(a) Social dimension   (b) Legal dimension

(c) Technological dimension   (d) Political dimension

1

8. Agile Pvt. Ltd. manufacturers athletic footwear. Owing to is popularity among sports team across the country it recently decided to enter into manufacturing of sports clothing and accessories. The type of organizational structure which is suitable for the company is

(a) Functional structure   (b) Divisional structure

(c) Horizontal structure   (d) Informal structure

1

9. Ram Murty, a professor of management conducted a class on management principles and explain to his students the significance of management principle.

In the next class the professor asked his students to play roles of different managers. He gave them various situations and ask them to think like managers and provide solutions to the problems given in this situation.

Each student applies the principles of management to the given situation in his/her own personalized manner depending upon his/her creativity.

1

The nature of management highlights it in above case is

(a) Management as a science

(b) Management as an art

(c) Management both as an art and as a science

(d) Management as a profession

10. Appliances India limited is engaged in manufacturing and distribution of home appliances since 1987.

It has a good name in the market as the company is producing good quality appliances. It has separate department for manufacturing, finance, sales, maintenance services and technical services to achieve specialization.

Since the areas of operation of the company have increased and customers have become more demanding, the company decided to modify the existing principle of management to meet the changing requirement of the environment.

Identify the general principle of management which the company wants to modify to meet the changing requirement.

(a) Authority & Responsibility   (b) Division of work

(c) Remuneration   (d) Scaler Chain

11. AVP is a renowned multiplex operator in India. It owns around 560 screens in 110 properties at 80 locations in the country. Considering the fact that there is more growing Trend among the people to spend more of their disposable income on entertainment, company plan to add more screen at existing locations and start at new locations also. Further the plan to add food chain also at their locations.

The company plan to float equity shares in market to raise the desired capital. The issue was fully subscribed and paid. Over the years the sale and the profit of the company have increased and its has been declaring higher dividend and the market price of a share has increased many folds.

The above case highlights the fulfilment of one of the prime objectives of financial management by the company. Identify the objective

(a) Profit maximization

(b) Increasing customer base

(c) Wealth maximization of shareholders

(d) None of the above

12. Assertion(A): staffing ensures the continuous survival and growth of the enterprise.

Reason(R): staffing helps in creating new jobs every time as employees may leave the organization off and on.

(a) Both Assertion(A) and Reason(R) are true and Reason(R) is not the correct explanation of Assertion(A).

(b) Both Assertion(A) and Reason(R) are true but Reason(R) is not the correct explanation of Assertion(A).

(c) Assertion(A) is true and Reason(R) is false

(d) Assertion(A) is false and Reason(R) is true

1

13. -------------- ensures that the subordinate performs tasks on behalf of the manager thereby reducing his workload and providing him with more time to concentrate on important matters.

(a) Decentralisation   (b) Delegation of authority

(c) Authority   (d) Accountability

1

14. To satisfy esteem needs, --------- type of incentives are needed.

(a) Financial incentives   (b) Non-Financial incentives

(c) Additional incentives   (d) None of the above

1

15. Several initiatives have been undertaken by the Government of India to encourage domestic manufacturing and export of defence equipment.

'Make In India', was one such scheme launched by the government to encourage companies across the world to manufacture defence product in India.

To which dimension of business environment does the above case relates to?

(a) Economic environment   (b) Social environment

(c) Political environment   (d) Legal environment

1

16. Sudesh received a large area of land in Gujrat from his grandfather, on the occasion of his birthday.

    He wishes to sell the land and open a manufacturing company to manufacture stationery products with the help of recycled paper. For these purposes he consulted one of his friend Amrit, who is running a financial consultancy firm.

    Amrit helped him to prepare a blueprint of his future business operations. Amrit also helped Sudesh to access the fixed and working capital requirements of business, on the basis of projected sales forecast for next three years.

    Identify the financial concept used by Amrit while helping Sudesh:

    (a) Financial planning
    (b) Capital budgeting
    (c) Working capital decision
    (d) Fixed capital decision

    1

17. Identify the role of middle level management from the following:

    (a) To implement the policies framed by top management.
    (b) To maintain close contact with operative level so as to evaluate the performance.
    (c) To assign duties and responsibilities to lower-level managers
    (d) All of the above.

    1

18. Mahima Jain is the senior manager in the advisory services department of Kodes limited. She regularly prepared performance report of her subordinates as a part of the appraisal.

    Identify the step of the controlling process performed by her.

    (a) Setting performance standards
    (b) Analysing deviation
    (c) Taking corrective actions
    (d) Measurement of actual performance.

    1

19. What is meant by 'follow-up action' as the step involved in process of planning:

    (a) Managing the plan   (b) Checking the plan
    (c) Selecting the plan   (d) None of the above

    1

20. Match the following: 1

Elements of Directing	Purpose of Element
A. Supervision	(i) Exchange of information
B. Motivation	(ii) Influencing people to take up job voluntarily
C. Leadership	(iii) Stimulating people to act in a desired manner
D. Communication	(iv) Overseeing the activities of employees

	A	B	C	D			A	B	C	D
(a)	(i)	(ii)	(iii)	(iv)		(b)	(ii)	(iii)	(iv)	(i)
(c)	(iii)	(iv)	(i)	(ii)		(d)	(iv)	(iii)	(ii)	(i)

21. A) How do debt and equity differ in their cost and risk involved? Explain.   3

OR

B) Explain any three factors affecting capital budgeting decision of a company.   3

22. A) Does planning guarantee success? Explain.   3

OR

B) Explain the next two steps in the planning process after 'identifying alternative courses of action'.   3

23. One of the questions that need to be answered in the organizing function is 'At what level are decisions made'? Decision making authority in an organization can be pushed down to the lower levels or it may lie with the top management. However, it is not an 'either-or' concept.   3

When an organization grows in size or complexity, there is tendency towards sharing decision making authority with the lower levels. This is because in large organizations, employees who are closely involved with certain operations tend to have more knowledge about them then the top management.

An important concept of organising function is discussed above. Identify the concept and state any two points of its importance.

24.	Explain with the help of any three points how proper financial planning enables the companies to tackle the uncertainty in respect of availability and timings of funds and helps in smooth functioning of the organization.	3
25.	'Coordination is the orderly arrangement of group efforts to provide unity of action in the pursuit of common purpose.' In the light of this statement explain any two points of importance of coordination.	4
26.	India's Craft Heritage is surviving because of its custom and traditions. Crafts products made by craftsmen of Rajasthan, Gujrat, Assam etc. are not only used in the country but are also exported to USA, Germany, UK and France and other countries in the world. The volume of exports of these products gives India an advantage in balance of payment and the much-needed foreign exchange. The prime minister desires that the handicraft industry should be expanded by linking it with technology. Focus should be on changing the manufacturing process, ensuring durability, and adopting innovations. Quoting the lines from the above paragraph explain any two dimensions of the business environment.	4
27.	A) Explain the following principles of management a) Division of work b) Unit of command	4

<div align="center">**OR**</div>

27.	B) Explain the following principles of scientific management a) Science, not rule of thumb b) Harmony, not discord	4
28.	A) Explain the following as factors affecting the requirements of fixed capital: a) Scale of operations b) Choice of technique	4

<div align="center">**OR**</div>

28.	B) Explain the following as factors affecting the requirements of working capital: a) Nature of business b) Production Cycle	4

29.   Vikas was the chief operating officer of 'Yalet limited', a   4
        company providing advanced software solution to Indian
        Defence Services. They had been carrying on business
        successfully for the last 12 years and earning enough profits.
        But from the last one year, they realised that though the
        business is getting big orders, which are being fullfilled in time
        even then the revenues kept on decreasing. Vikas was not able
        to find out where the problem was. He started keeping a close
        check on the progress of activities as he could sense that
        something was wrong. He wanted to take some action before
        any major damage could be done to the business. Vikas
        appointed a cyber security expert who monitor the companies
        process and found out that the computer operator was deleting
        the entries from the computers and pocketing the revenues. He
        was caught and handed over to the police. This created an
        atmosphere of order and discipline in the organization and
        helped in minimizing the dishonest behavior on the part of the
        employees.
        (a) Identify the function of management highlighted in the
        above paragraph
        (b) Explain any three other ways in which this function of
        management may help the organisation.

30.   Chintamani is the production manager of 'Global India   4
        limited' manufacturing and exporting steel. During the year
        2017-18 the company could not meet its target of production.
        The chief executive officer of the company constituted a
        committee of expert to find out the reasons and give its
        recommendation so that the production target could be met in
        the future. The company analyzed the production related
        records and found out that there were problems due to
        communication. 'Global India limited' has rigid rules and
        would insist on communication through prescribed channels,
        which led to delays. The company also had a number of
        managerial levels causing further delay and distorted
        communication.
        Moreover, the production manager, Chintamani, was using a
        tone that quite often the sentiments of the workers. Also,
        Chintamani and the workers did not believe in each other and

so could not understand each other's message in the original sense.

(a) Identify and give the meaning of the type of communication barrier discussed above.

(b) Quoting lines from the above case state one communication barrier under each of the types identified in part (a) because of which Global India limited could not meet its production targets.

31.   Vinod, the Human Resource Manager of Hitashi Enterprise decided to leave the company. The CEO called him and requested him to fillup the vacancies before leaving organization. He suggested that his subordinate Rajesh is very competent and trustworthy.If he could be moved up in the hierarchy he would do the needful. The CEO agreed for the same.   6
(a) Identify the type of recruitment stated above.
(b) State merits and demerits of concept identified in part (a)

32.   Shiv has recently joined an industrial unit manufacturing low-cost LED bulb. He has five workers working under him. He gives them instructions to ensure optimum utilisation of resources and achievement of work targets. He provides good on-the-job training to the workers to build an efficient team. He also analysis the work performed by them and gives feedback.   6
The work performed by Shiv may be described as an important element of directing. Name and state the element and also state other 3 elements of directing other than performed by Shiv.

33.   A) Explain the importance of planning function of management.   6

OR   6

B) Explain the limitation of planning function of management.

34.   Reva and Deva are the owners of PLA Group. They are having   6
        a diversified business. Now they are planning to launch a new
        venture. The owners are very successful as they follow
        planning, organizing, directing, and controlling in all
        businesses.
        Explain the characteristics of management are signifying
        above.

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Name: _____   **Sec:** _____   **Roll No.:** _____

BURNPUR RIVERSIDE SCHOOL, BURNPUR
HALF YEARLY EXAMINATION: [2025-2026]
BUSINESS STUDIES
CLASS: XII

Time: 3 Hours   **Maximum Marks: 80**
==

General Instruction:

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   (iii)   Answers should be brief and to the point.
   (iv)   Answers to questions carrying **3** marks may be from 50 to 75 words.
   (v)   Answers to questions carrying **4** marks may be in about 150 words.
   (vi)   Answers to questions carrying **6** marks may be in about 200 words.
   (vii) Attempt all parts of a question together

1.   "The management gives a common direction to the individual   1
         effort in achieving the overall goal of the organization."
         Identify the point of importance of management is highlighted
         in this statement:
         (a) Helps in achieving personal objective
         (b) Helps in achieving group goals
         (c) Helps to increase efficiency
         (d) Helps to create a dynamic organisation

2.   "While performing the organizing function jobs at allocated to   1
         the members of each department in accordance with their skills
         and competencies."
         Identify the step in the organizing function being discussed
         above:
         (a) Identification and division of work
         (b) Departmentalization
         (c) Assignment of duties
         (d) Establishment of reporting relationship.

3.   Statement I: Demonetization led to channelising savings into   1
        the formal financial system.
        Statement II: Digital transactions require internet connectivity
        as they need cell phones for customers and Point-of-Sale
        (POS) machines for merchants.
        (a) Statement I is correct and statement II is incorrect.
        (b) Statement II is correct and statement I is incorrect.
        (c) Both the statements are correct
        (d) Both the statements are incorrect.

4.   Identify the principle of management given by Fayol according   1
        to which "The intent of this principle is to produce more and
        better work with the same effort."

        (a) Division of work   (c) Scaler chain
        (b) Unity of direction   (d) Equity

        Read the following text and answer the questions 5 to 6 on the
        basis of the same.
        After completing a diploma in interior decoration, Malini
        Birwal set up a small office at Chandigarh to render services.
        Being new in the field of entrepreneurship, she put in logical
        and systematic thinking involving foresight, intelligent
        imagination and sound judgement rather than guess work.
        She made certain assumption as she knew that only accurate
        forecast will act as base material upon which the plans are to
        be drawn.
        Her friend Neeru Sharma who has done MBA advised her to
        do planning effectively as a good planning will help
        development to deal with the changes and uncertain events.
        So, she acted in a conscious manner and made sub plans for
        the juniors to follow.

5. Identify importance of planning did Neeru hint at while guiding Malini: 1
   (a) Planning facilitate decision making
   (b) Planning for most innovative ideas
   (c) Planning reduces overlapping and wasteful activities
   (d) Planning reduces the risk of uncertainty.

6. Identify step for planning process was taken by Malini   1
   (a) Setting objectives
   (b) Follow-up action
   (c) Developing premises
   (d) Selecting an alternative

7.   1

   Identify the dimension of business from given picture:
   (a) Social dimension   (b) Legal dimension
   (c) Technological dimension   (d) Political dimension

8. _____ is the concept that refers to the number of subordinates   1
   that can be effectively managed by a superior and determines
   the number of levels of management in the organisation.
   (a) Organisation structure   (b) Span of management
   (c) Hierarchy of authority   (d) Delegation of authority

9. Statement I: In order to survive, an organization must earn   1
   enough revenues to cover cost.
   Statement II: Management increases effectiveness by reducing
   cost and increasing productivity.
   (a) Statement I is correct and statement II is incorrect.
   (b) Statement II is correct and statement I is incorrect.
   (c) Both the statements are correct
   (d) Both the statements are incorrect.

10. In Delight Ice Creams Limited decision-making authority is   1
concentrate at the top level and no authority has been
delegated among subordinates. On the other hand, in Tasty Ice
Creams Limited a big organisation as compared to Delight Ice
Creams Limited decision-making authority is always delegated
among more than one person.
Identify the principle of management discussed above:

(a) Stability of personnel
(b) Centralisation and decentralization
(c) Authority and responsibility
(d) Scalar Chain

11. Mr. Bose is running a successful business. He is the owner of   1
R. K. Cement Limited. Mr Bose decided to expand his
business by acquiring a steel factory. This required an
investment of ₹60 crores. To seek advice in this matter he
called his financial advisor Mr T Ghosh who advised him
about the judicious mix of equity (40%) and debt (60%).
Employ more of cheaper debt may enhance the EPS.
Mr. Ghosh also suggested him to take loan from a financial
institution as the cost of raising funds from financial
institutions is low. Though this will increase the financial risk
but will also raise the return to equity shareholders. He also
apprised him that issue of debt will not dilute the control of
equity shareholders.
At the same time, the interest on loan is a tax-deductible
expense for computation of tax liability. After due
deliberations with Mr Ghosh, Mr Bose decided to raise funds
from a financial institution.
Identify the concept of financial management as advised by
Mr Ghosh in the above situation:
(a) Capital budgeting   (b) Capital structure
(c) Dividend decision   (d) Working capital decision

12. Assertion (A): Recruitment maybe defined as the process of searching for perspective employees and stimulating them to apply for jobs in organisation.
Reason(R): Objective of recruitment is to create a pool of prospective candidates for best selection of candidate.
(a) Both Assertion(A) and Reason(R) are true and Reason(R) is the correct explanation of Assertion(A)
(b) Both Assertion(A) and Reason(R) are true but Reason(R) is not the correct explanation of Assertion(A)
(c) Assertion (A) is true but Reason(R) is false
(d) Assertion (A) is false but Reason(R) is true

1

13. Rishav joined an entertainment company Avtaar, as a creative head. As a manager looking after the creative unit of the company, one of the functions he has to perform is the process of organising.
Identify the step of the process will need to perform in identifying and dividing the work that has to be done in accordance with previously determined plans.
(a) Assignment of duties
(b) Departmentalisation
(c) Establishing reporting relationship
(d) Identification & division of work

1

14. Mr. R. Sathi, the ex-chairman of Swadesh Ltd. built up his successor before retiring. Following the norms set-up by himself, he handed over the reins of the company to the co-founder Mr. Shravan, who had the potential to bring about change in the behavior of others.
Name the concept of management which was the reason why Mr. Sathi choose Mr. Shravan to be his successor.
(a) Motivation   (b) Leadership
(c) Communication   (d) Staffing

1

15. Two movies were planned to be released on the same date. However, just day before the release date, the team of one of the movies, decided to postpone it's release date due to

1

opposition of a group of people as some unethical content related to their religion was shown in that movie.

The other movie released on it's scheduled time and made huge profit, while other movie suffered loss.

Identify the dimension of business environment highlighted in the above case.

(a) Social environment   (b) Legal environment

(c) Technological environment   (d) Environment

16. Udyog Pipes Ltd. earned a net profit of ₹85 lakhs. Amrish, the financial advisor of Udyog Pipes Ltd. wants to decide how to appropriate these profits. Which of the following decisions will help him in deciding it: 1

(a) Investment decision   (b) Financing decision

(c) Dividend decision   (d) Capital structure

17. Identify the statement which is incorrect: 1

(a) The art of management can be acquired through regular practice, creativity and training.

(b) The major task of a manager is to give a common direction to the individual efforts in achieving the overall goals of the organisation.

(c) Important aspects of management include achieving the individual's goal only.

(d) At middle level management, the managers are responsible for implanting and controlling the plans and strategies of an organisation.

18. Radha started a home cooked food delivery Dabba Service. Her mother, who is a great cook, decided to help her. They relied on friends and family for orders and then on word of mouth. As a step in the process of ensuring that activities are performed as per her plan of supplying healthy, good quality, reasonable food and earning profit, she decided to keep both qualitative and quantitive benchmarks towards which she would strive to work. A function of management is being discussed above. An important characteristic of this function of   1

management is

(a) It is the first function of management

(b) It is the last function of management

(c) It is both forward-looking and backward looking

(d) It is required only in business organisation

19. Which type of plan has least flexibility: 1

(a) Policy   (b) Rule

(c) Strategies   (d) Objective

20. Match the following: 1

Column I	Column II
A. Job Enrichment	(i) Not to feel worried on these aspects and work with greater zeal.
B. Employee recognition programme	(ii) Concerned with designing jobs that include higher level of knowledge and skill.
C. Job security	(iii) Managers to provide opportunity to employees to improve their skills and be promoted.
D. Career advancement opportunity	(iv) It means acknowledgment with a show of appreciation.

	A	B	C	D			A	B	C	D
(a)	(i)	(ii)	(iii)	(iv)		(b)	(ii)	(iii)	(iv)	(i)
(c)	(iii)	(iv)	(i)	(ii)		(d)	(ii)	(iv)	(i)	(iii)

21. Give the meaning of Financial Management. States its main objective.   3

OR

State any three points of importance of financial planning.   3

22. (A) Explain any three points of importance of planning functions of management.   3

OR

(B) Explain any three limitations of planning function of management.   3

23. Organisation is the harmonious adjustment of specialised parts 3
of the accomplishment of some common purpose or purposes.
In the light of the above statement explain any three points of
importance of organising.

24. Steelone Enterprises is manufacturing high quality steel 3
utensils. The demand for steel utensil is rising as people are
getting aware that plastic is not good for health. This has led to
increase in the production of steel utensils. To encourage sales,
Steelone enterprises declared a liberal credit policy, which
allows 3 months credit to its wholesale buyers.
In the light of the above, identify the three factors affecting
capital requirements of Steelone Enterprises. State with reason,
whether the factors as identify above, will result in high or low
working capital requirement.

25. 'Art is concerned with personal application of knowledge.' In 4
the light of this statement compare all the features of
management with art and prove that it is an art.

26. Mahinder Agro Ltd. Started a new venture for distribution of 4
harmless and chemical fertilizers free vegetables. They
conducted a survey to find out consumer preferences for such
vegetables.
They found that most of the consumers were concerned about
the harmful chemicals being used in growing the vegetables.
They found that 90% of the households were searching for its
alternatives. The company contacted a group of agriculture
experts to lay down the procedure for growing the vegetables
by the farmers. They decided to train the farmers in new
technology to grow chemical free vegetables according to new
innovative method. The experts are also suggested soil
management technique through which farmers would be able
to create an abundant and lasting harvest.
Identify and explain the two dimensions of business
environment highlighted in the above para.

27. (A) Explain the following techniques of scientific management 4
(a) Motion study
(b) Time study

OR

(B) Explain how principles of management help the managers: 4
(a) In taking scientific decisions
(b) In providing the managers with useful insights into real world situations

28.   (A) Explain the following factors affecting the choice of   4
capital structure:
(a) Cash flow position
(b) Cost of equity

OR

(B) Explain the following as factors affecting the requirement   4
of fixed capital:
(a) Technology upgradation
(b) Financing alternative

29.   Vinber Ltd. Set up a manufacturing unit at Bhiwadi at   4
Himachal Pradesh to manufacture electric geysers and supply
them to dealers all over the country. Their production target
was 500 geysers par week. It was decided by the management
that variation in production up to 10 units would be acceptable.
    At the end of the first week, the production was 450
geysers. The next week, production increased to 470 geysers.
A week later, production was 460 geysers. On investigation it
was found out that fluctuation in production was due to
irregular supply of electricity.
(a) The above para discusses some of the steps in the process
of one of the functions of management, state the steps.
(b) Also state the step(s) that have not been discussed in the
ever para.

30.   Voltage fluctuations have been common and quite high in   4
India. They harm our electrical appliances like televisions,
refrigerators, and air conditioners, often leaving them in a
permanently damaged condition. N-Guard Company decided
to manufacturers stabilizer for North India where the voltage
fluctuations range from 220V- 230V. Once the demand for the
North India was taken care of, they decided to launch
stabilizers of varying voltages from 90V - 260V for meeting
the requirements of voltage fluctuations in other regions of
India also. Three engineers were appointed for South, West
and East regions of India, as the voltage was different in all the

three regions. Though all the engineers were appointed to manufacture stabilizers but the product differed from region to region.

(a) Identify organizational structure of N-Guard company.

(b) State any two advantages and one limitation of the structure identified in the above para.

31. In Amazing Kids Enterprise, which is famous for manufacturing toys for kids wants to fillup vacancies of various post to reduce workload of every employee. For this they approached a consultancy firm who provide detail of possible candidate to the enterprise. After one month Amazing Kids Enterprise follow the steps to hire right person for various post provided by consultancy firm. 6

(a) Identify the type of recruitment stated above.

(b) State merits and demerits of concept identified in part (a)

32. Handsen is the CEO of 'Newcastle Enterprises', one of the world's most successful companies. His success stories have been well documented. He chooses highly motivated and capable managers who can perform their task creatively and adequately without his help. He allows the group members to work on their own tasks and resolve issues themselves. 6
He intervenes, but only when needed to connect an unfavorable situation. He does not use power unless it is absolutely essential. He even allows mistakes to happen for his people to learn from them. He supports them and supplies them the required information to complete the assigned task.

(a) Identify and state the leadership style adopted by Handsen with diagram.

(b) Explain the other two leadership styles based on the use of authority.

33. (A) Explain the following steps of planning: 6
(a) Setting objectives
(b) Developing premises
(c) Identifying courses of action

OR

(B) State the following types of plans: 6
(a) Single use plan
(b) Standing plans
(c)Method
(d) Budget

34. Rishitosh Mukherjee has recently joined AMV Ltd., a   6
company manufacturing refrigerator. He found that his
departments were under staffed and other departments were
not cooperating with his department for smooth functioning of
the organisation.
Therefore, he ensured that his department has the required
number of employees and its cooperation with other
departments is improved.
(a) Identify the level at which Rishitosh Mukherjee was
working.
(b) Also state other functions required to be performed by
Rishitosh Mukherjee at this level.

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Name: _____ Sec: _____ Roll No.: _____

<div align="right">**CODE-A**</div>

BURNPUR RIVERSIDE SCHOOL, BURNPUR
HALF-YEARLY EXAMINATION : [2025-2026]
ECONOMICS (030)
CLASS : XII

Time: 3 Hrs. **Maximum Marks :80**

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General Instructions :
  1) This question paper contains two sections:

   Section A- Macro Economics
   Section B- Indian Economic Development
  2) This paper contains 20 Multiple Choice Questions type questions of 1mark each.
  3) This paper contains 4 Short Answer Questions type questions of 3 marks each to be answered in 60 to 80 words.
  4) This paper contains 6 Short Answer Questions type questions of 4 marks is to be answered in 80 to 100 words.
  5) This paper contains 4 Long Answer Questions type questions of 6 marks each to be answered in 100 to 150 words.

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SECTION A- MACRO ECONOMICS

1. Read the following statements carefully. 1
Statement 1: Economic territory and political Frontier of a nation are one and the same thing.
Statement 2: American embassy in India is a part of the economic territory of India.

In light of the given statements, choose the correct alternative from the following:
a. Statement 1 is true and Statement 2 is false
b. Statement 1 is false and Statement 2 is true
c. Both statements are true
d. Both statements are false

2. Complete the following table by choosing the correct option:- 1

Level of income (₹ in Crore)	Consumption expenditure(₹ crore)	AD(₹ crore)
0	100	?(1)
100	180	?(2)
200	260	?(3)
300	340	?(4)

a. (1) 100, (2) 200, (3) 300, (4) 400
b. (1) 100, (2) 180, (3) 260, (4) 340
c. (1) 0, (2) 80, (3) 160, (4) 240
d. (1) 100, (2) 150, (3) 200, (4) 250

3. The gap by which actual aggregate demand exceeds the aggregate demand required to establish full employment equilibrium is known as_____. 1

a. Deficient demand
b. Deflationary gap
c. Inflationary gap
d. Excess demand

4. Read the following statements-Assertion(A) and Reason(R). Choose one of the correct alternatives given below:- 1
Assertion(A)-Real GDP is a better indicator of economic growth of a nation as compared to Nominal Gross Domestic Product.
Reason(R)- Real Gross Domestic Product measures the value of goods and services at current year prices.

Alternatives:
a. Both Assertion (**A**) and Reason(**R**) are true and Reason(**R**) is the correct explanation of Assertion (**A**).
b. Both Assertion (**A**) and Reason(**R**)are true but Reason(**R**) is not the correct explanation of Assertion (**A**).
c. Assertion (**A**) is true but Reason (**R**) is false.
d. Assertion (**A**) is false but Reason(**R**) is true.

5. Which of the following statement is false?   **1**

     a. Money supply is a stock concept
     b. High powered money includes demand deposits of commercial banks, besides currency with the public
     c. M1 includes net demand deposits
     d. None of these

6. Inventory is a _____ concept, whereas the change in inventory is a _____ concept.   **1**

     a. Stock, flow
     b. Flow, stock
     c. Stock, stock
     d. Flow, flow

7. The monetary policy generally targets to ensure_____.   **1**

     a. Price stability in the economy
     b. Employment generations in the country
     c. Stable foreign relations
     d. Greater tax collections for the government

8. Read the following statements carefully.   **1**
Statement 1: GNP can be greater than GDP in a two sector economy.
Statement 2: Net factor income from abroad is zero in a two sector economy

In light of the given statements, choose the correct alternative from the following:
a. Statement 1 is true and Statement 2 is false
b. Statement 1 is false and Statement 2 is true
c. Both statements are true
d. Both statements are false

9. If in an economy, the value of investment multiplier is 5 and dis savings are (-)100 crore, the relevant savings at income level of ₹1400 crore would be ₹_____ crore.   **1**

     a. 80   b. 180   c. 140   d. 240

10. If MPS is 0.25 and initial change in investment is ₹250 crore, then the final change in income would be____.   **1**

   a. ₹1000 crore
   b. ₹1200 crore
   c. ₹500 crore
   d. ₹3500 crore

11. Distinguish between '*Qualitative and Quantitative tools*' of credit control as may be used by a Central Bank.   **3**

   OR

   What is meant by '*medium of exchange*' function of money? How has it solved the related problem created by barter?

12.   **3**

   (Full Employment Level of Income)
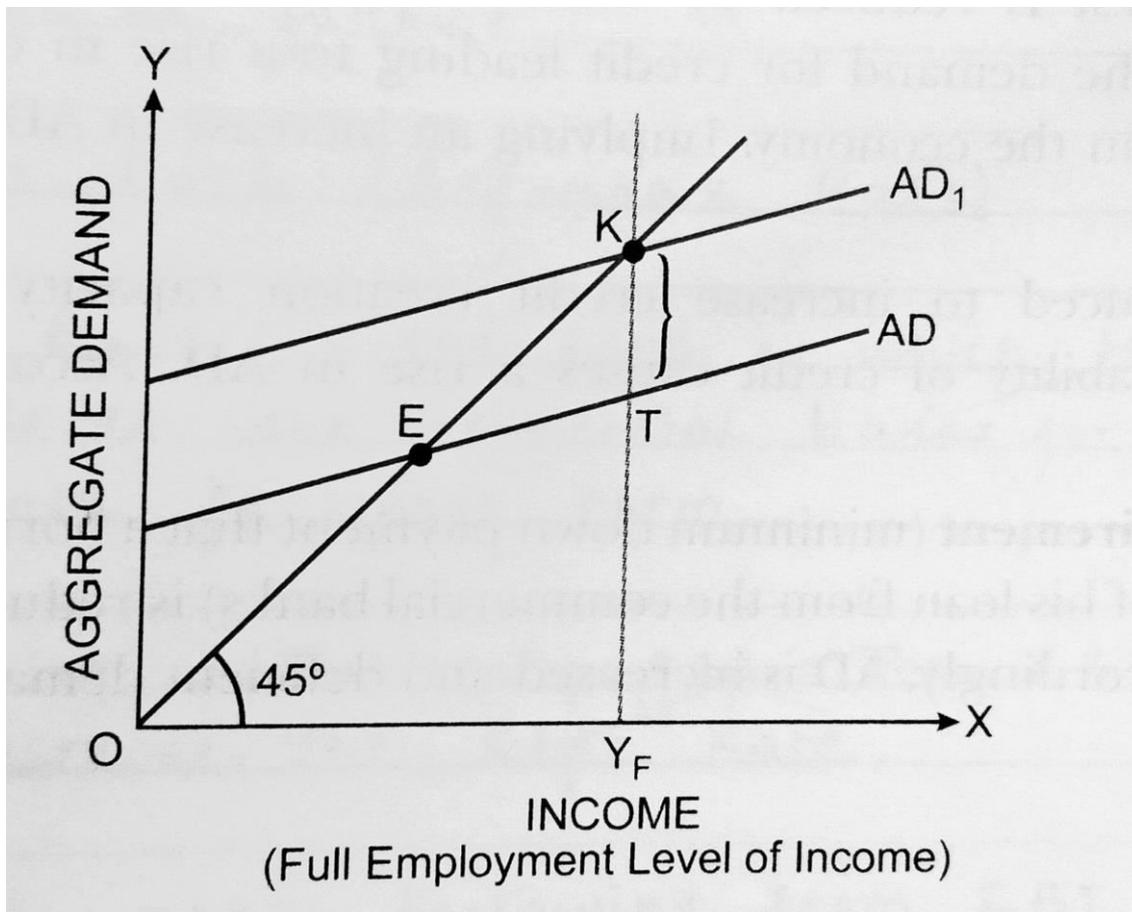
   In the given figure, what does the gap '**KT**' represent? State and discuss any two fiscal measures to correct the situation.

13. a. *"Only those goods are included in the estimation of domestic product which are sold or purchased in domestic market of a country".*   **1**

   Defend or refute to the given statement.

b. From the following data about firm A, calculate 'Net Value Added at Market Price' by it:- **3**

Items	(₹in lakh)
Sales	700
Change in stock	40
Depreciation	80
NIT	100
Purchase of machinery	250
Purchase of intermediate products	400

14 a. What is aggregate demand? **1**

b. *"Economist are generally concerned about the rising MPS in an economy".*
Explain why? **3**

<div align="center">OR</div>

a. Read the following statement carefully. Write true or false with the reason. **3**
In an economy, the investment expenditure is 600 and the consumption function is:-
C= 90+0.7Y. The economy is in equilibrium at an income level 2000.

1

b. What is investment multiplier?

15. a. What is autonomous investment? **1**

b. *"Ex - ante savings and Ex- ante investments are always equal".* **3**
Defend or refute the given statement with valid reason.

16. a. *"GDP is not the best indicator of the economic welfare of a country".* **3+3**
Defend or refute the given statement with valid reasons.

b. Calculate National Income from the following data:-

Serial no.	Items	Rs. in Crore
i.	COE	800
ii.	Rent	500
iii.	Interest	300
iv.	Consumption of fixed capital	80
v.	NIT	150
vi.	Profit	500
vii.	Mixed income of self employed	800
viii .	Net factor income from abroad	(-)50

OR

a. Write down the three identities of calculating the GDP of a country by the three methods. Also, briefly, explain why each of these should give us the same value of GDP.

3

b. From the following data calculate national income by expenditure method:

3

Serial No.	Items	(₹ in crore)
i.	Compensation of employees	600
ii.	Government final consumption expenditure	550
iii.	Net factor income from abroad	(-)10
iv.	Net export	(-)15
v.	Profit	400
vi.	Net indirect tax	60
vii.	Mixed income	350
viii.	Rent	200
ix.	Interest	310
x.	Private final consumption expenditure	1000
xi.	Net domestic capital formation	385
xii.	Consumption of fixed capital	85

17. **Read the following text carefully and answer the questions on the basis of the given text and common understanding:**

"After setting up a working group to study the possibility of a Central Bank Digital Currency (CBDC) in India in 2020, the RBI

revealed a concept note on digital rupee (e-Rupee) on 7th October, 2022."

"The e-Rupee will provide an additional option to the currently available forms of money.

It is substantially not different from bank notes, but being digital it is likely to be easier, faster and cheaper."

RBI said that it broadly defines CBDC as the legal tender issued by a central bank in a digital form. It is akin to paper currency in a different form.

3

    i.   Identify and discuss the function of Central Bank indicated in the above text.

3

    ii.   State any two advantages of digital rupee.

SECTION B- INDIAN ECONOMIC DEVELOPMENT

18. The purpose of the action taken in 2016 by the government was to eliminate black money, curb fake currency usage, boost digitalization and facilitate the transition of the Indian non formal economy into a formal economy. However, the plan had backfired significantly in the following days as prolonged cash shortages is resulted in a disruption in day to day life of people.

1

The above Statement is referring to which of the following?

  a. Demonetization
  b. GST
  c. MRTP Act
  d. None of these

19. _____ is one of the main positive contributions made by the British in India.

1

  a. Communication
  b. Railways
  c. Roads
  d. None of these

20. Which of the following statements is incorrect with reference to rural development?   **1**

a. Rural development includes improvement in literacy, health facilities and sanitation
b. Providing credit and marketing facilities are part of rural development
c. Rural development only focuses on increasing agricultural production
d. Rural development also includes the development of alternative sources of livelihood

21. Read the following statements carefully.   **1**
Statement 1: Under IPR 1956, the first category comprised industries exclusively owned by State.
Statement 2: Second category comprised of industries where state will supplement private sector.

In light of the given statements, choose the correct alternative from the following:
a. Statement 1 is true and Statement 2 is false
b. Statement 1 is false and Statement 2 is true
c. Both statements are true
d. Both statements are false

22. _____ is the apex institution which plans and evaluates policies related to rural credit needs.   **1**

Alternatives:
a. Cooperative credit societies
b. Regional rural banks
c. SHG
d. NABARD

23.   **1**

From the set of statements giving in column I and column II choose the correct pair of statements:-

Column I	Column I
A. Human Capital	i. Skill and expertise acquired by the residents of a country over time
B. Human development	ii. A means to an end
C. UGC	iii. Enforces rules and regulations regarding health education in the country
D. On the job training programmes	iv. Training programs prior to employment

Codes:-
a. A-i
b. B-ii
c. C-iii
d. D-iv

24.   _____ refers to the sale of equity of public sector units in the   **1**
market.

a. Liberalization
b. Globalisation
c. Disinvestment
d. Privatisation

25. ***"To import from abroad is to be slaves of foreign countries",*** the   1
first Prime minister, Jawaharlal Nehru, once declared.
Source: asianstudies.org

The strategy to save foreign exchange by encouraging domestic
production of goods and services is called_____

a. Import substitution
b. Export promotion
c. Import quota
d. Export earning

26. Read the following statements-Assertion(A) and Reason(R).   1
Choose one of the correct alternatives given below:-
**Assertion(A)-A huge percentage of female workforce is
engaged in primary sector.**
Reason(R)- Mobility of women in rural areas is extremely low.

Alternatives:
a. Both Assertion (**A**) and Reason(**R**) are true and Reason(**R**) is
the correct explanation of Assertion (**A**).
b. Both Assertion (**A**) and Reason(**R**)are true but Reason(**R**) is not
the correct explanation of Assertion (**A**).
c. Assertion (**A**) is true but Reason (**R**) is false.
d. Assertion (**A**) is false but Reason(**R**) is true.

27. Benefits of physical capital accrue only to private entities, where   1
as human capital provides private as well as_____ benefits.

a. Profitable
b. Social
c. Fiscal
d. Monetary

28. ***"Development of railways during British rule encouraged***   3
colonial exploitation of the Indian resources".
Justify the given statement with valid arguments.

29. Human capital benefits only the owner and not the society. Defend   3
or refute the given statement.

OR

"Dr Khurana, a dentist, ran his clinic in an economically backward area. He was earning a comparatively low income. So, he decided to move to a city and spend a huge amount for the same".

3

Identify and explain the type of expenditure incurred by Dr. Khurana, which directly contributed to the process of human capital formation.

30.

4

Interpret the above picture on account of type of workers (self-employed/hired).

31. *"Human capital formation gives birth to innovation, invention and technological improvements"*.

4

Do you agree with the given statement? Support your answer with valid arguments.

32. *'Economic growth'* and *'Economic development'* means one and the same. Defend or refute the given statement. Do you think that India is economically developed? Why or why not?

4

OR

A. Why were the benefits of green revolution restricted to few states and few crops in initial stages of planning?

2

B. Why does the Government of India maintain buffer stock?

1

C. Define subsistence farming.

1

33.A. *"Navratna policy has facilitated the maintenance, promotion and disinvestment of Public Sector Undertakings".* **3**
Justify the given statement with valid explanation.

B. *"Indian economy has certain advantages, which have made it a favourite outsourcing destination"* **3**
Do you agree with the given statement? Give valid reasons in support of your answer.

OR

A. *"Recently the Government of India has decided to merge MTNL and BSNL on account of rising losses".* **3**
Justify the step taken by the Government of India.

B. *"Globalization is an essential outcome of liberalisation of an economy".* **3**
Justify the given statement with a valid explanation.

34. **Read the following hypothetical text and answer the given questions:**

Since ages, farmers in India have taken resource to debt. In the earlier times, the same was from informal sources. Since independence with the effort of the government, formal sector activity came into pictures. Farmers borrow not only to meet their investment need but also to satisfy their personal needs. Uncertainty of incomes caused by factors like crop failure caused by irregular rainfall, reduction in groundwater table other pest attack etc.
These resource push farmers into the clutches of the private money lenders, who charge exorbitant rate of interest.
Government in India at different times for different reasons, introduced debt relief/ waiver scheme. These schemes were used by the government as a quick means to extricate farmers from their indebtedness, helping to restore their capacity to investment produce.
The cost and benefit of such debt relief scheme is however a widely debated topic among economists.
Some economists argue that such schemes are extremely beneficial to the poor and marginalized farmers while other give that these schemes adds to the fiscal burden to the government.

Some other believes that these schemes may develop the expectation of repeated bailouts among farmers which may spoil the credit culture among farmers.

A) Explain the importance of credit in rural market. **2**

B) What steps can be taken to improve the condition of Regional Rural Banks? **2**

C) Who are marginal farmers? **2**

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CODE-B

BURNPUR RIVERSIDE SCHOOL, BURNPUR
HALF-YEARLY EXAMINATION : [2025-2026]
ECONOMICS(030)
CLASS :XII

Time: 3 Hrs.   Maximum Marks :80
===
General Instructions :

  1) This question paper contains two sections:

       Section A- Macro Economics
       Section B- Indian Economic Development
   2) This paper contains 20 Multiple Choice Questions type questions of 1mark each.
   3) This paper contains 4 Short Answer Questions type questions of 3 marks each to be answered in 60 to 80 words.
   4) This paper contains 6 Short Answer Questions type questions of 4 marks is to be answered in 80 to 100 words.
   5) This paper contains 4 Long Answer Questions type questions of 6 marks each to be answered in 100 to 150 words.
===
SECTION A- MACRO ECONOMICS

1.   Read the following statements carefully.   1
     Statement 1: Macroeconomics studies such economic issues that concern the welfare of all residents of a country.
     Statement 2: Microeconomics studies how government can improve the state of economy of a country.

     In light of the given statements, choose the correct alternative from the following:
     a. Statement 1 is true and Statement 2 is false
     b. Statement 1 is false and Statement 2 is true
     c. Both statements are true
     d. Both statements are false

2. Find the missing figures and choose the correct alternatives:- **1**

Income(₹)	Consumption(₹)	APC
0	20	-
20	60	(iii)
40	(ii)	2.5
60	140	(iv)
(i)	170	2.125

Codes:-

    i.   ii.   iii.   iv.
a. 100, 100, 1.3, 2
b. 70, 100, 3, 1.33
c. 80, 100, 3, 2.33
d. 110, 90,   2, 3.33

3. If increase in national income is equal to increase in savings the value of marginal propensity to consume would be_____. **1**

a. equal to unity
b. greater than 1
c. less than 1
d. equal to zero

4. Read the following statements-Assertion(A) and Reason(R). Choose one of the correct alternatives given below:- **1**
Assertion(A)-Domestic income is a territorial concept.
Reason(R)- Domestic income includes value of final goods and services produced in the entire world.

Alternatives:
a. Both Assertion (**A**) and Reason(**R**) are true and Reason(**R**) is the correct explanation of Assertion (**A**).
b. Both Assertion (**A**) and Reason(**R**)are true but Reason(**R**) is not the correct explanation of Assertion (**A**).
c. Assertion (**A**) is true but Reason (**R**) is false.
d. Assertion (**A**) is false but Reason(**R**) is true.

5. The RBI _____ Government security in a bid to _____ the stock of money in the economy.

1

    a. sells, decrease
    b. purchases, decrease
    c. sells, increase
    d. purchases, not change

6. Operating surplus does not include_____.

1

    a. Interest
    b. Rent
    c. Profit
    d. Compensation of employees

7. Read the news headline given below and answer the question that follows:-
"To make the new tax regime more attractive, budget 2024 raised the basic exemption limit to ₹75,000 from₹ 2,50,000 in the new tax regime".
Source:- economictimes.indiatimes.com.
Disposable income is increased by_____ the tax burden of the tax payers.

1

    a. lowering
    b. increasing
    c. maintaining uniformity
    d. none of these

8. Read the following statements carefully.
Statement 1: GDP is the sum total of the gross market value of all the final goods and services added by all the sectors in the economy during a fiscal year.
Statement 2: GVA$_{mp}$ is equal to the excess of value of output over intermediate consumption.
In light of the given statements, choose the correct alternative from the following:
a. Statement 1 is true and Statement 2 is false
b. Statement 1 is false and Statement 2 is true
c. Both statements are true
d. Both statements are false

1

9. Graphically, aggregate demand function can be obtained by vertically adding the _____ and _____ function.   **1**

   a. consumption, saving

   b. consumption, investment

   c. investment, saving

   d. Aggregate supply, consumption

10. If in an economy, the investment multiplier is 4 and autonomous consumption is ₹30 crore, the relevant consumption function would be_____.   **1**

    a. C= 30+ 0.75Y

    b. C= (-)30 + 0.25Y

    c. C= 30+ 0.25Y

    d. C= (-)30 – 0.25Y

11. *"Like money, goods also perform the function of store of value with same merits".*   **3**

    Defend or refute the statement.

    3

    OR

    Discuss how the central bank plays the role of '*controller of credit*' in an economy.

12.   **3**
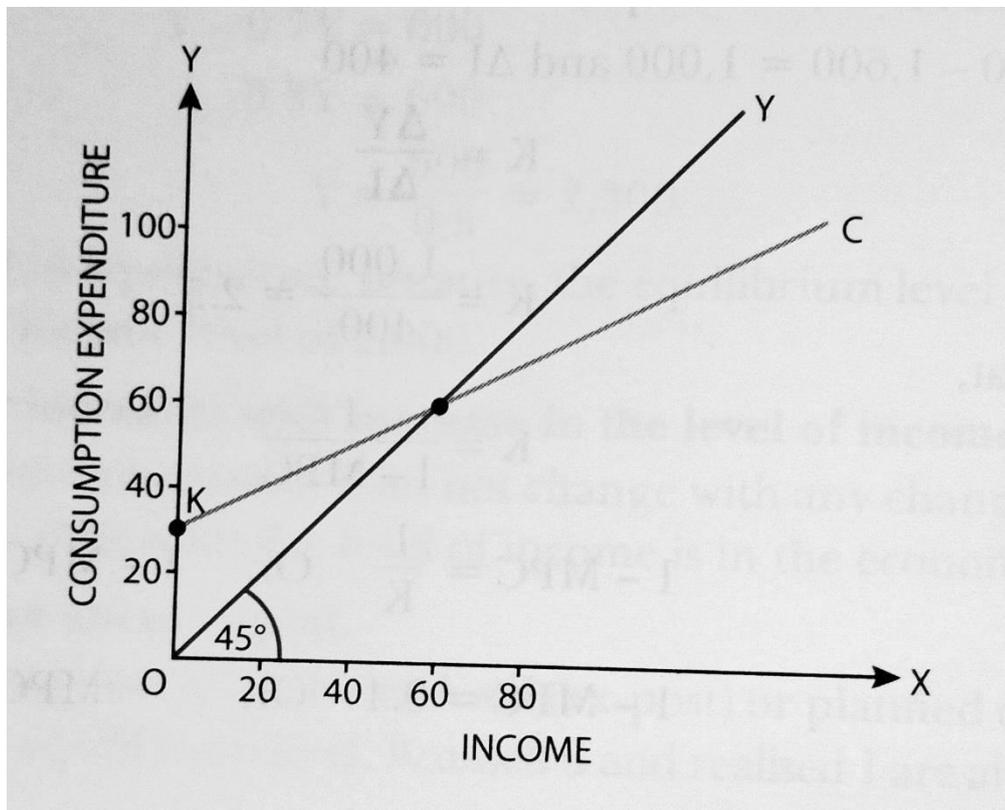
Analyse the given diagram and identify the level of income at which savings are equal to zero and state whether greater savings imply greater flow of goods and services or not.

13. a. How does a rising sale of petrol and diesel cars in the economy impact   **1**
the following:-
i. GDP
ii. Social Welfare

b. calculate Net Indirect Tax from the following data:-   **3**

Items	(₹ in Crore)
GNP at MP	11000
NDP at FC	4000
Replacement of fixed capital	500
Net export	100
Net factor income from abroad	(-) 700

14 a. Which of the two, average propensity to consume or average   **1**
propensity to save, can be negative and why?
b. Given below is the consumption function in an economy:-
                                   C= 100+0.5Y   **3**
With the help of a numerical examples show that in this economy as income increases average propensity to consume will decrease.

15   a. Is it correct that a tax on the household reduces their marginal   **1**
propensity to consume?

b. Suppose consumption function for an economy is
$$C= 80+ 0.75Y$$ **3**

Where C= consumption function and Y= national income and the
investment expenditure is ₹200 crore.

Estimate the following:

   i.   Equilibrium level of income
   ii.   Values of consumption and saving at equilibrium level of
      income.

16.

A.   Distinguish between *value of output* and *value added*.   **3**

B.   From the following data, calculate NVA_{FC}:-   **3**

Serial No.	Items	Rs. In Crore.
i.	Price per unit of output	20
ii.	Output sold (units)	1250
iii.	Excise duty	5000
iv.	Consumption of fixed capital	1000
v.	Change in stock	(-)500
vi.	Single use producer goods	6000

OR

A.   Explain the treatment assigned to the following while estimating National   **3**
income. Give reasons.
i. Expenditure on maintenance of a building
ii. Expenditure on adding a floor to the building
iii. Expenditure on fertilizers by a farmer

B. Calculate national income from the following data: 3

Serial No.	Items	₹(in Crore)
i.	Private final consumption expenditure	600
ii.	Net domestic capital formation	70
iii.	Net exports	(-)20
iv.	Current transfer from government	5
v.	Government final consumption expenditure	100
vi.	Net indirect taxes	30
vii.	Net factor income from abroad	10

17. **Read the following passage carefully and answer the questions:-**

In a modern economy, money consists mainly of currency notes and coins issued by the monetary authority of the country. In India, currency notes are issued by the RBI, which is the monetary authority in India. However, coins are issued by the Government of India.

Apart from currency notes and coins, the balance in savings or current account deposits, held by the public in commercial banks is also considered money since cheques drawn on these accounts are used to settle transactions.

Such deposits are called demand deposits as they are payable by the bank on demand from the account holder. Other deposits, example fixed deposits, have a fixed period to maturity and referred to as time deposits. Though a 100 rupee note can be used to obtain commodities worth rupees 100 from a shop, the value of the paper itself is negligible certainly less than rupees 100. Similarly, the value of the metal in a 5 rupee coin is probably not worth rupees 5.

Why then do people accept such notes and coins in exchange of goods which are apparently more valuable than these?

The value of the currency notes and coins is derived from the guarantee provided by the issuing authority of these items. Every currency note bears on its face a promise from the governor of RBI that if someone produces the note to RBI, or any other commercial bank, RBI will be responsible for giving the person purchasing power equal to the value printed on the note.

The same is also true for coins. Currency notes and coins are therefore called Fiat money.

They do not have intrinsic value like a gold or silver coin. They are also called legal tenders as they cannot be refused by any citizen of the country for settlement of any kind of transaction.

Cheques drawn on savings or current accounts, however, can be refused by anyone as a mode of payment. Hence, demand deposits are not legal tenders.

A. Why deposits in banks by public are considered money? Explain. **3**

B. Why do we consider currency notes and coins as legal tenders? **3**

SECTION B- INDIAN ECONOMIC DEVELOPMENT

18. Which of the following falls under the role of the World Trade Organization? **1**

   a. Setting the limit for domestic and foreign investment in a country.
   b. Mandating the level of tax levied on foreign firms in developing countries.
   c. Aiding the development of poor countries by providing infrastructural investment.
   d. Providing a platform for member countries to decide future tariff- related strategies

19. Occupational structure refers to____ **1**

   a. Size of labour force in a country
   b. Number of people living in a country
   c. Distribution of workforce among different sectors of an economy
   d. Nature of different occupations

20. Identify, which of the following alternative indicates towards incorrect components combination of Agriculture Marketing System? **1**

   a. Assembling, Storage, Processing, Packaging
   b. Production, Assembling, Processing, Grading
   c. Assembling, Processing, Packaging, Transportation
   d. Processing, Packaging, Grading, Distribution

21. Read the following statements carefully.　　　　　　　　　　　**1**
Statement 1: Objectives of modernisation has helped in setting up of various types of technology oriented industries.
Statement 2: Modernisation refers to the change in technology along with positive change in social outlook of the people.

In light of the given statements, choose the correct alternative from the following:

a. Statement 1 is true and Statement 2 is false

b. Statement 1 is false and Statement 2 is true

c. Both statements are true

d. Both statements are false

22. The institutional structure of rural banking in contemporary India consists　**1**
of a set of multi- agency institutions, namely,_____.

i. Regional Rural Banks

ii. Cooperative Banks

iii. Land Development Banks

iv. Commercial Banks

Options:
a. i and iv

b. i, iii, and iv

c. i, ii and iii

d. i, ii, iii and iv

23. **From the set of statements giving in column I and column II**   **1**
choose the correct pair of statements:-

Column I	Column I
A. Tapas Majumdar Committee	i. Education of fundamental right for all children in the age group of 6 to 14 years.
B. Brain Drain	ii. Sum total of skill and expertise of all types of those persons who are engaged in the process of production.
C. Human Capital	iii. A problem related to human capital formation in India.
D. Right to Education Act	iv. 1999

Codes:-
a. A-ii, B-i, C-iv, D-iii
b. A-ii, B-iv, C-i, D-iii
c. A-iv, B-iii, C-ii, D-i
d. A-iii, B-i, C-iv, D-ii

24. _____ were launched to overcome balance of payment crisis in the   **1**
country.

a. Foreign Exchange Reforms
b. Trade and Investment Policy Reform
c. Tax Reforms
d. Financial Sector Reforms

25. In the post- independence era, the policy makers of India adopted and   **1**
economic system that fundamentally implies the coexistence of___ and
____.

a. Small and large scale industries
b. Small and medium scale industries
c. Public and private sector
d. Private and foreign sector

26. Read the following statements-Assertion(A) and Reason(R). Choose one of the correct alternatives given below:-   1

Assertion(A)-People work to earn a living.

Reason(R)- Working is essential for existence in a system of mutually interdependence.

Alternatives:

a. Both Assertion (**A**) and Reason(**R**) are true and Reason(**R**) is the correct explanation of Assertion (**A**).

b. Both Assertion (**A**) and Reason(**R**)are true but Reason(**R**) is not the correct explanation of Assertion (**A**).

c. Assertion (**A**) is true but Reason (**R**) is false.

d. Assertion (**A**) is false but Reason(**R**) is true.

27. *'Skill India'* programme launched by the government is not an attempt to increase____ in India.   1

a. Human capital formation
b. Efficient utilisation of input
c. Increase in GDP growth
d. Inadequate spread of vocational education

28. *"The British destroyed the traditional handicraft industries of India".*   3
Do you think that it was a major way of the British to colonize India? Why?

29. *"Expenditure on On- The- Job Training is an important means of Human Capital Formation in an economy".*   3
Give valid reasons to justify the given statement.

    3

OR

"Human Development is a broader concept than human capital".
Explain.

30.   **4**
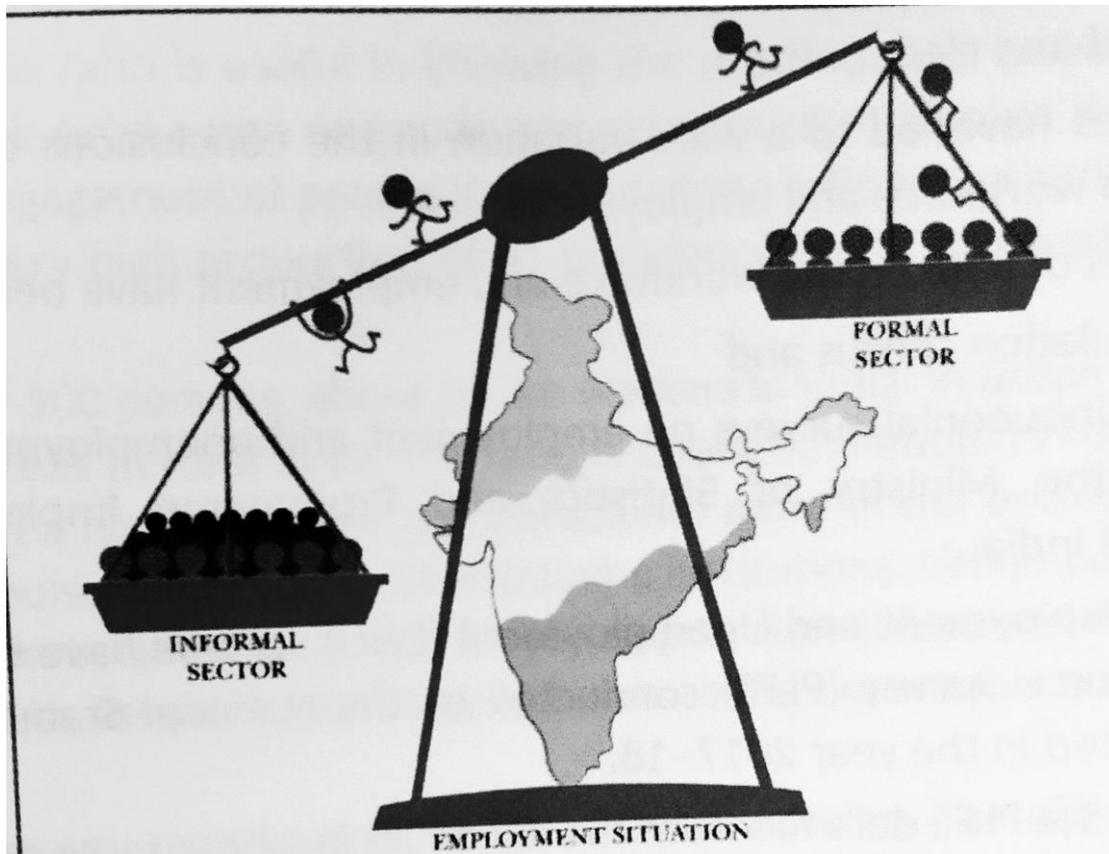
Identify the situation depicted in the given image. Suggest the impact of the indicated situation on the Indian economy.

31. *"Education commission 1964 - 66 had a recommended that at least 6%*   **4**
of GDP must be spent on education'.
How far has India been able to achieve the said goal?

32. How does industries help to strengthen the economy of a country?   **4**

<div align="center">OR</div>

A. *"Mixed economy is the basic framework of planning in India".*
Justify the given statement.   **2**

B. State the principle focus of economic planning.   **1**

C. Why did India opt for planning?   **1**

33.A. Why did RBI have to change its role from controller to facilitator of
financial sector in India?   **3**

B. Do you think that '**Navratna Policy**' of the government helps in
improving the performance of public sector undertaking India? How?   **3**

<div align="center">OR</div>

A. *"Agricultural sector has been adversely affected by the economic reform process"* **3**
Comment.

B. "N*ew Economic Policy stimulated economic growth".* **3**
Give three arguments in favour and against of these statement.

34. **Read the following hypothetical text and answer the given questions:**

As stress on Indian agriculture increases because of several reasons, such as continuous fragmentation of land holdings and climate change, there is a serious threat to livelihood based on farming. This is particularly true for small farmers. Growing rural populations and constrained employment opportunities in the non firm sector have caused sub division of land holdings in India to the extent that these cannot provide an adequate livelihood to a majority of firm households. With this view, this study was undertaken to explore options for improving the outcomes of the farmers. In this context, crop diversification into high value crops can be a possible strategy to improve livelihood. Using data from a nationality representative survey, we established that households diversifying towards high value crops are less likely to be poor, the biggest impact being for small holders.
Diversification of production activity is another option to supplement income of the farming families. This implies shifting some work force from agriculture to non agricultural activities of production within the rural areas. Combined together, crop diversification and diversification of production activity is called **'Agricultural Diversification'**, which is an emerging challenge to raise and stabilize income of the farming families in India.

A) Are diversification of crop production and diversification of production activity identical concepts? **2**

B) **"Diversification of crop production is the need of the hour for Indian agriculture".** Comment. **2**

C) Which crops are included under horticulture crops? **2**

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Name:_____ Sec:_____ Roll No:_____

<div align="right">**CODE: A**</div>

BURNPUR RIVERSIDE SCHOOL, BURNPUR
HALF YEARLY EXAMINATION [2025 – 2026]
CLASS - XII
GEOGRAPHY

TIME: 3 Hrs.   **Maximum Marks: 70**

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General Instructions:
1. This question paper contains 30 questions. All questions are compulsory.
2. This question paper is divided into **five sections.** Sections - **A, B, C, D** and **E**.
3. **Section A** - Question number **1 to 17** are multiple choice type questions carrying 1 mark each.
4. **Section B -**Question number **18 and 19** are source based questions carrying 3 marks each**.**
5. **Section C -**Question number **20 to 23** are short answer type questions carrying 3 marks each. Answers to these questions shall be written in 80 to 100 words.
6. **Section D -**Question number **24 to 28** are Long answer type questions carrying 5 marks each. Answers to these questions shall be written in 120 to 150 words.
7. **Section E -**Question number **29 and 30** are map based questions carrying five marks each.

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SECTION - A
MULTIPLE CHOICE QUESTIONS

1. The Human Poverty Index measures the shortfall in human development   1
   on the basis of which parameters?
   A. The adult literacy rate and the life expectancy at birth.
   B. Access to resources in terms of purchasing power.
   C. The number of small children who are underweight.
   D. The number of children enrolled in the school.

2. Identify the primary activities from the characteristics given   1
   below:
   I) Organized and capital intensive.
   II) Ranches cover large areas and are divided into parcels.
   III) The products are processed and packed scientifically and exported.
   IV) Ranching is organized, the main emphasis is on breeding, genetic improvement , disease control and healthcare.

a)Pastoralism
b)Commercial Livestock Rearing
c)Commercial Agriculture
d)Diary Farming

3. Assertion (A): The occupational composition of India's population   1
    shows a large proportion of primary sector workers compared to
    secondary and tertiary sectors.
    Reason (R): About 54.6% of total working population are cultivators
    and agricultural labourers .
    a)Both Assertion and Reason are true and Reason is the correct
    explanation of the Assertion.
    b)Both Assertion and Reason are true but reason is not the correct
    explanation of the Assertion.
    c)Assertion is true but reason is false.
    d)Assertion is false but reason is true.

4. The Radical school of thought of geography was influenced by which of   1
    the following ?

    (a)   Marxian Theory.
    (b)   Kant's Theory.
    (c)   Gandhian philosophy.
    (d)   None of these.

5. Match the following policies with the pillar of human development they   1
    reflect:

Policies/Initiatives	Pillar of Human Development
1. Equal access to education for girls and boys.	A.Sustainability
2. Availability of resources for future generations.	B. Equity
3. Encouraging participation in local governance.	C. Productivity
4. Skill development programs for higher efficiency.	D. Empowerment

    A.   1-A ,2-B ,3-C ,4-D
    B.   1-B ,2-A ,3-D ,4-C
   C.   1-C ,2-D ,3-B ,4-A

D. 1-D ,2-C ,3-A ,4-B .

6. Match Column I with Column II and choose the correct option: 1
   COLUMN I   COLUMN II
   a) Transport City   1) Jaipur
   b) Mining city   2) Ambala
   c) Garrison City   3) Itarsi
   d) Administrative town 4) Singrauli
   OPTIONS:

	A	B	C	D
a.	4	3	2	1
b.	1	2	3	4
c.	3	4	2	1
d.	2	1	4	3

7. Which one of the following statements is incorrect: 1
   a. Cheap water transport has facilitated the jute mills industry along the Hugli.
   b. Sugar cotton textiles and vegetable oils are footloose industries.
   c. The development of hydroelectricity and petroleum reduced to a great extent the importance of coal energy as a locational factor for industry.
   d. Port towns in India have attracted industries.

8. In irrigated areas which of the following is the most common kind of degradation? 1
   a) Gully erosion
   b) Wind erosion
   c) Salinisation of soils
   d) Siltation of land

9. Assertion (A): Plantation agriculture was introduced by the Americans in colonies situated in the tropics. 1
   Reason (R): The slopes of hills are used for tea plantations because of favourable geographical conditions.
   a)Both Assertion and Reason are true and Reason is the correct explanation of the Assertion.
   b)Both Assertion and Reason are true but reason is not the correct explanation of the Assertion.
   c)Assertion is true but reason is false.
   d)Assertion is false but reason is true.

10. The northeastern plateau region consists of mainly which of the following minerals: 1
    1) Iron ore   2) Coal   3) Zinc   4)_ Granite
    CODES:
    a) 1 & 2
    b) 2 & 3
    c) 3 & 4
    d) 1& 3

11. Which of the following is related to quaternary activities?   1
    a) Production of information.
    b) Fishing.
    c) Tourism.
    d) Trading.

12. Which of the following is not a benefit of rainwater harvesting?   1
    a)It increases water availability.
    b)It checks the declining groundwater table.
    c)It improves the quality of groundwater through dilution of contaminants like fluoride and nitrates.
    d)Helpful in production of hydroelectricity.

13. Which of the following is not true about Bharmaur Tribal region?   1
    a) This region comprises of Bharmaur and Holi Tehsil of Chamba district.
    b) It is not a notified tribal area.
    c) It is mainly inhabited by the Gaddi tribal community.
    d) The tribals practice transhumance.

14. Match **Column 1** with **Column 2** and choose the correct option: 1

COLUMN I	COLUMN II
A. Cottage Industries.	**1.** Food processing.
B. Agro based industries	**2.** Iron and steel.
C. Chemical based industries	**3.** Wooden statues.
D. Basic industries	**4.** Mineral oil.

    CODES:

	A	B	C	D
a)	3	1	4	2
b)	1	2	3	4
c)	4	3	2	1
d)	2	4	1	3

15. Refer to the bar graph displaying the population of various countries   1
    what is the approximate combined population of the three least populous
    countries shown in the graph?
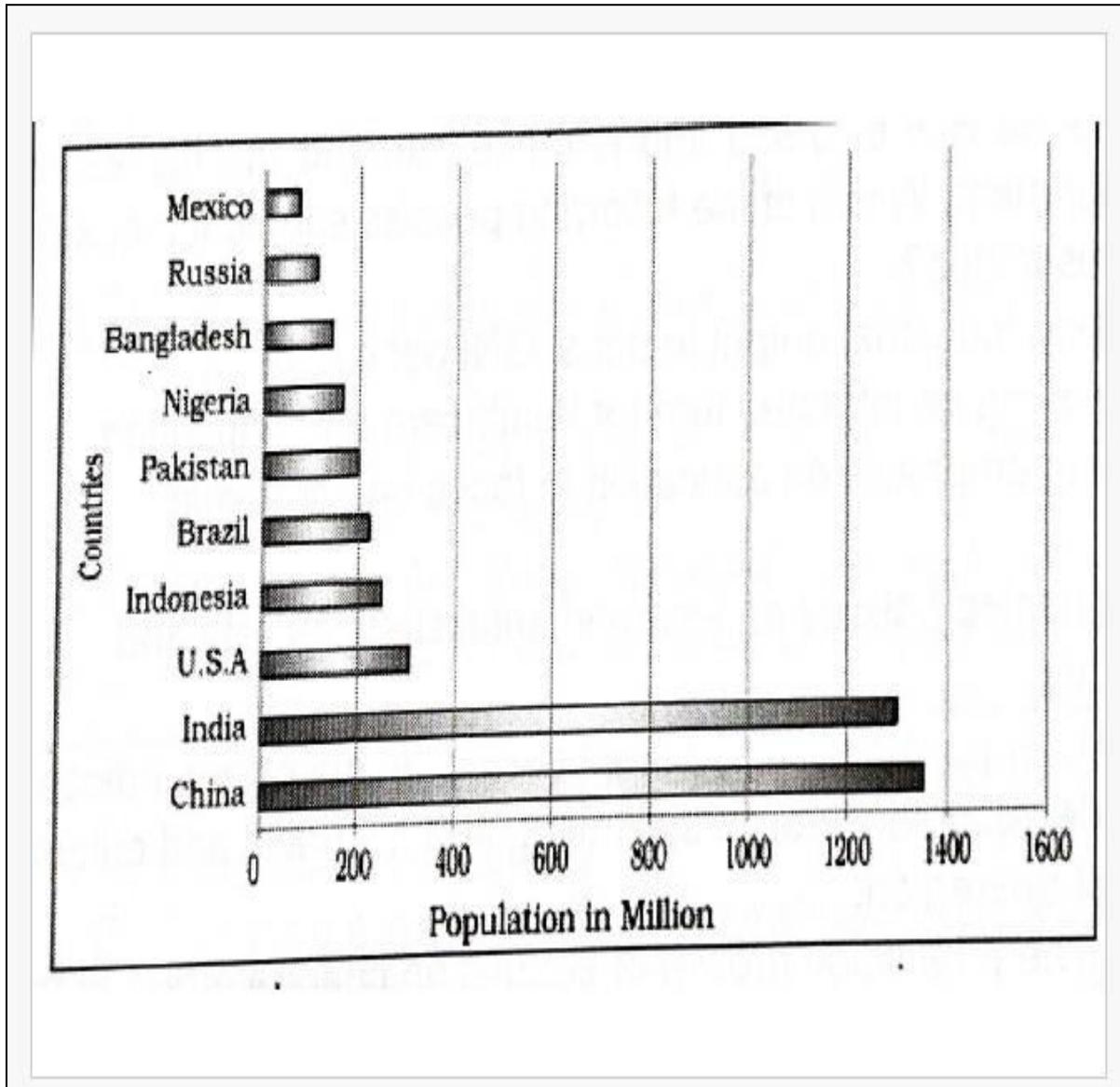
a.500 Million
b.400 Million
c.300 Million
d.200 Million

16. Study the graph given below and answer the following: 1
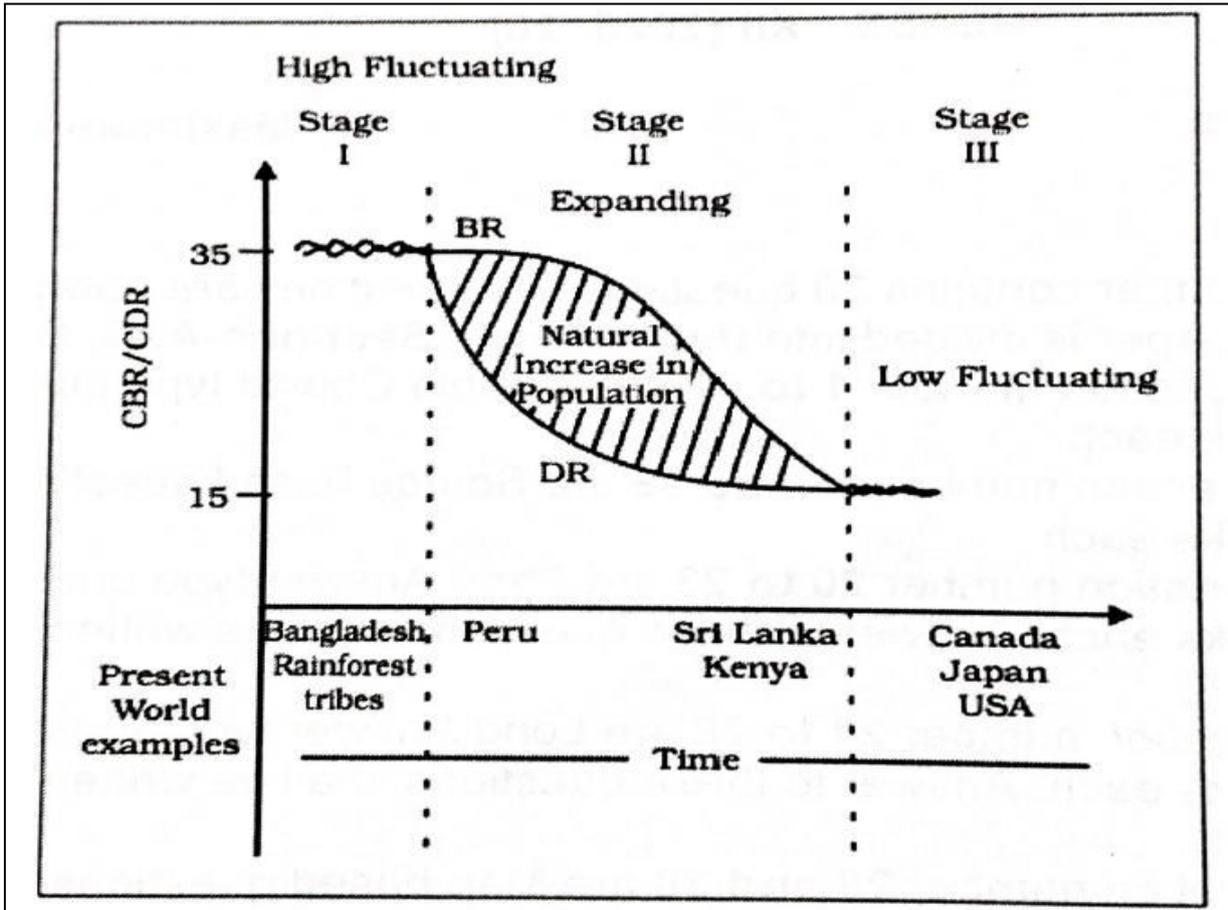
A country is currently experiencing low births low death rates and a highly urbanized society with advanced healthcare and industrial infrastructure Based on the Demographic Transition theory this country is most likely in which stage?
   a. Stage I: High fluctuating.
   b. Stage II: Expanding
   c. Stage III: low fluctuating.
   d. Pre transition phase.

17. Study the data carefully and answer the questions that follow: 1

(Inter-state Migration by place of Last Residence Indicating Migration Streams Period 0-9 years India, 2011)
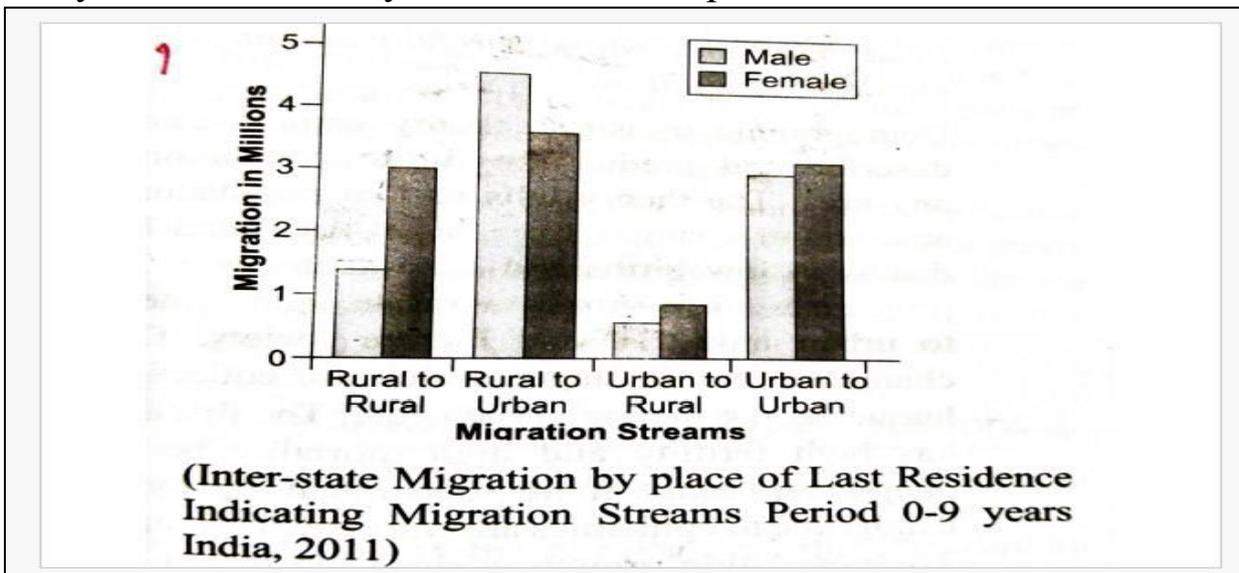
Which one of the following streams has the highest male migration?

    a) Rural to rural.
    b) Rural to urban.
    c) Urban to rural.
    d) Urban to urban

SECTION – B (SOURCE BASED QUESTIONS)

18. Read the passage given below and answer the questions that follow: 3
    Manufacturing involves a full array of production from handicraft store molding iron and steel and stamping out plastic toys to assembly of delicate computer components or space vehicles. In each of these processes the common characteristics are the application of power mass production of identical products and specialized labor in factory settings for the production of standardized commodities. Manufacturing may be done with modern power and machinery. But it may still be very primitive Most of the 3rd world countries still manufacture in the literal sense of the term, it is difficult to present a full picture of all the manufacturers in these countries more emphasis is given to the kind of industrial activity which involves less complicated systems of production.
    a) What is manufacturing?
    b) "Manufacturing involves a full array of production." Justify the statement.
    c) By what organizational structure and stratification manufacturing is characterized?

19. Read the passage given below and answer the questions that follow: 3

    India has traditionally been an agrarian economy and about two thirds of its population has been dependent on agriculture.Hence, development of irrigation to increase agricultural production has been assigned a very high priority in the five year plans and multipurpose River Valley projects like the Bhakra Nangal,Hirakud, Damodar Valley, Nagarjuna Sagar, Indira Gandhi Canal project etc have been taken up in fact India's water demand at present is dominated by irrigational needs.

    Agriculture accounts for most of the surface and groundwater utilization, it accounts for 89% of the service water and 92% of the groundwater uatilization. While the share of industrial sector is limited to 2% of the

surface water utilization and 5% of the groundwater, the share of domestic sector is higher (9%) in surface water utilization as compared to groundwater. The share of agricultural sector in total water utilization is much higher than other sectors, however in future, with development, the shares of industrial and domestic sectors in the country are likely to increase.

   a) What is irrigation?
   b) Discuss the water utilization in agricultural sector?
   c) Explain the reason for groundwater depletion.

SECTION – C (SHORT ANSWER TYPE QUESTIONS)

20. Explain how outsourcing has impacted both the countries that outsource work and the countries receiving outsourced jobs.   3

21. Explain three types of changes that an economy undergoes which affect land use?   3

OR

   What do you mean by common property resources, explain?

22. Explain the three major areas that decide the rank of Human Development Index in the world.   3

23. An important aspect of population growth in India is the growth of its adolescents. Explain.   3

OR

"If development is not engendered it is endangered." Examine the statement in the context of inclusive development.

SECTION – D(LONG ANSWER TYPE QUESTIONS)

24. Formulate a development plan for the Bharmaur Tribal Region under the Integrated Tribal Development Project(IDTP) focussing on improving agriculture, education and livelihood opportunities, considering the region's climatic conditions, socio-economic challenges, and potential for sustainable development.   5

OR

Write a short note on drought- prone area programme. How does this programme help in the development of dry land agriculture in India?

25. Explain how pastoral nomadism is an adaptation to specific geographical conditions. Illustrate your answer with examples from different regions of the world. 5

<center>OR</center>

Enlist the characteristic features of Plantation agriculture.

26. How do quaternary services differ from tertiary services? Give three reasons why service sector in developing and developed countries is growing faster than the manufacturing sector. 5

27. Enlist three differences between rural and urban settlements. Explain three factors that determine the type of rural settlement in India? 5

<center>OR</center>

Name the four types of rural settlements in India. What are the three factors that determine the clustered or compact rural settlement in India?

28. "The promotion of use of non- conventional sources of energy in India is the need of the hour." Support the statement. 5

<center>OR</center>

What are the advantages of copper? Mention the copper mining areas of India.

<center>**SECTION – E (MAP BASED QUESTIONS)**</center>

29. On the given political map of the world, the following seven geographical features are seen, identify any five of those features and write the correct names on the line marked near each feature. 5
    (a) A major area of commercial livestock rearing.
    (b) An area of subsistence gathering.
    (c) An area of nomadic herding.
    (d) An area of commercial livestock rearing.
    (e) An area of mixed farming.
    (f) An area of subsistence gathering.
    (g) An area of extensive commercial grain farming.

30. On the given political map of India locate and label any five of the following with appropriate symbols: 5
    (a) The state with the highest density of population.
    (b) The state leading in production of coffee.
    (c) An oil refinery in Gujarat.
    (d) Copper mine located in Rajasthan.
    (e) The state with the lowest density of population.
    (f) Coal mines in West Bengal.

(h)The leading state in the production of sugarcane.

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Name:_____ Sec:_____ Roll No:___

BURNPUR RIVERSIDE SCHOOL, BURNPUR
HALF YEARLY   EXAMINATION, 2025
GEOGRAPHY(THEORY)
CLASS-XII

Time Allowed : 3 hours   **Maximum Marks : 70**

General Instructions :
1. There are 30 questions in all. All questions are compulsory.
2. This question paper is divided into five sections.Section A,B,C,D and E
3. Section A:Question numbers **1** to **17** are multiple choice questions(MCQs) carrying **one mark** each.Write only the correct answer in your answer sheets.
4. Section B: Question number 18 and 19 are source based questions carrying three marks each.
5. Section C:Question numbers **20** to **23** are short answer questions carrying 3 marks each. Answers to each of these questions should not exceed 80- 100 words.
6.Question numbers **24** to **28** are long answer questions carrying 5 marks each. Answers to each of these questions should not exceed 150 words each.
7.Question number **29** and **30** are related to identification or locating and labeling of geographical features on maps, carrying 5 marks each.
8.Outline maps of the World and India provided to you must be attached within your answer books.
9.Use of templates or stencils for drawing outline maps is allowed.

SECTION A

1. Which one of the following is an important priority of high human development   1
    in these countries?

a. Education and healthcare
b. Healthcare and territorial security
c. Education and Industrial Development
d. Economic development and per capita income

2. Identify the type of primary activity from the following characteristics: 1
    i)   It is a primitive subsistence activity.
    ii)   They move from one place to the other with their livestock.
    iii) They move in search of pastures.
    iv)   A wide variety of animals are kept in different regions.

    a) Commercial livestock rearing
    b) Transhumance
    c) Subsistence gathering
    d) Nomadic Herding

3. **There are two statements marked as Assertion (A) and Reason**   1
    (R). Mark your answer as per the codes provided below.

    Assertion (A)- The decades 1951 to 1981 are referred to as the
    period of population explosion in India.

    Reason (R)- After Independence the centralized development
    planning improved the living conditions of people leading to low
    mortality rate but high fertility rate.

    OPTIONS
    a) Both (A) and (R) are true but (R) is not the correct explanation
       of (A)
    b) Both (A) and (R) are true and (R) is the correct explanation
       of   (A)

    c) Both (A) and (R) are incorrect

    d) (A) is correct but (R) is incorrect

4. The Behavioral school of thought emphasized on which of the following   1
    aspects?

    a. Lived experience.
    b. Causes of poverty and social inequality.
    c. Different aspects of social well being.
    d. Housing health and education.

5. Match the forming policies with the pillar of human development they reflect: 1

	Pillar of Human Development
1. Equal access to education for girls and boys.	A. Sustainability
2. Availability of resources for future generations.	B. Equity
3. Encouraging participation in local governance.	C. Productivity
4. Skill development programs for higher efficiency.	D. Empowerment

    A.   1-A ,2-B ,3-C ,4-D
    B.   1-B ,2-A ,3-D ,4-C
    C.   1-C ,2-D ,3-B ,4-A
    D.   1-D ,2-C ,3-A ,4-B   .

6. Match **column 1** with **column 2** and choose the correct option: 1

    COLUMN I   COLUMN II

    A. Educational town   **1.** Jodhpur

    B.Tourist town   **2.** Aligarh

    C.Commercial town   **3.** Kurukshetra

    D.Religious and cultural town   **4.** Sharanpur

CODES:

	A	B	C	D
a)	2	1	4	3
b)	1	2	3	4
c)	3	4	2	1
d)	4	3	2	1

7.   Which of the following is not a characteristic of an urban marketing center?   1

    a. They provide specialized services.
    b. They provide specialized markets.
    c. They are organized periodically.
    d. They provide ordinary services.

8.   Which crop was introduced in the Baba Budan hills?   1

    a. Jute
    b. Tea
    c. Coffee
    d. Rice

9.   **There are two statements marked as Assertion (A) and Reason (R). Mark your answer as per the codes provided below.**   1

Assertion (A)- Underground mining method is the safest way of mining.

 Reason (R)- Overhead costs such as safety precautions and equipment is relatively low in this method**.**

   OPTIONS
   c) Both (A) and (R) are true but (R) is not the correct explanation of (A)
   d) Both (A) and (R) are true and (R) is the correct explanation of (A)

c) Both (A) and (R) are incorrect

d) (A) is correct but (R) is incorrect

10. Manganese is mainly used in which of these activities? 1

1. Smelting of iron ore
2. Producing ferro alloys
3. Manufacturing aluminum

Codes:

a. 1,2 & 3.
b. 2 & 3.
c. 1 & 2.
d. 1 & 3.

11. Which of the following are tertiary activities? 1

1.Teaching.

2.Legal Services.

3.Publishing.

4.Transport.

Codes:

a. 1,2 & 3.
b. 2 & 3.
c. 1, 2.& 4
d. All of these.

12. Neeru Meeru Watershed Management Program is associated with which of the 1
following states?

a. Rajasthan.
b. Tamil Nadu.
c. Andhra Pradesh.
d. Karnataka.

13. Which of the following statements is not true regarding the Indira Gandhi 1 Canal?

    a. It was previously known as the Rajasthan Canal.
    b. It originates at the Harika Barrage in Punjab.
    c. The canal almost runs parallel to Pakistan border.
    d. Rajasthan is least benefited by this canal.

14. Match **Column 1** with **Column 2** and choose the correct option: 1

COLUMN I	COLUMN II
A. Cottage Industries.	**1.** Food processing.
B. Agro based industries	**2.** Iron and steel.
C. Chemical based industries	**3.** Wooden statues.
D. Basic industries	**4.** Mineral oil.

CODES:

	A	B	C	D
a)	3	1	4	2
b)	1	2	3	4
c)	4	3	2	1
d)	2	4	1	3

15.

(Inter-state Migration by place of Last Residence Indicating Migration Streams Period 0-9 years India, 2011)

Which of the following streams shows the largest migration?

  a. Rural to Rural.
  b. Rural to urban.
  c. Urban to rural.
  d. Urban to urban.

16. Study the graph given below and answer the following: 1
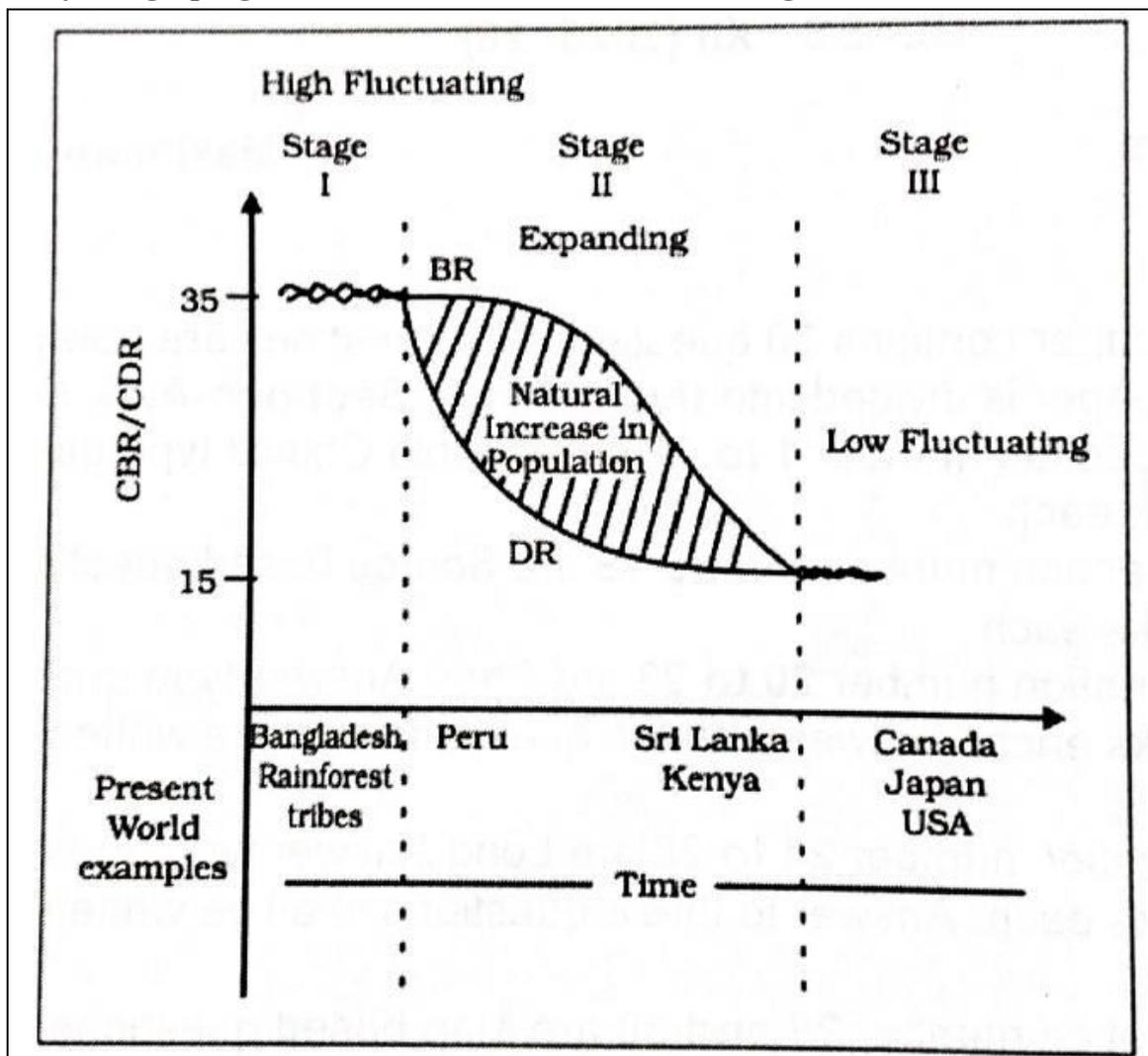
A country is currently experiencing low births low death rates and a highly urbanized society with advanced healthcare and industrial infrastructure. Based on the Demographic Transition theory, this country is most likely in which stage?

a. Stage I: High fluctuating.
b. Stage II: Expanding
c. Stage III: low fluctuating.
d. Pre transition phase.

17. Refer to the bar graph displaying the population of various countries What is 1 approximate combined population of the three least populous countries shown

in the graph?
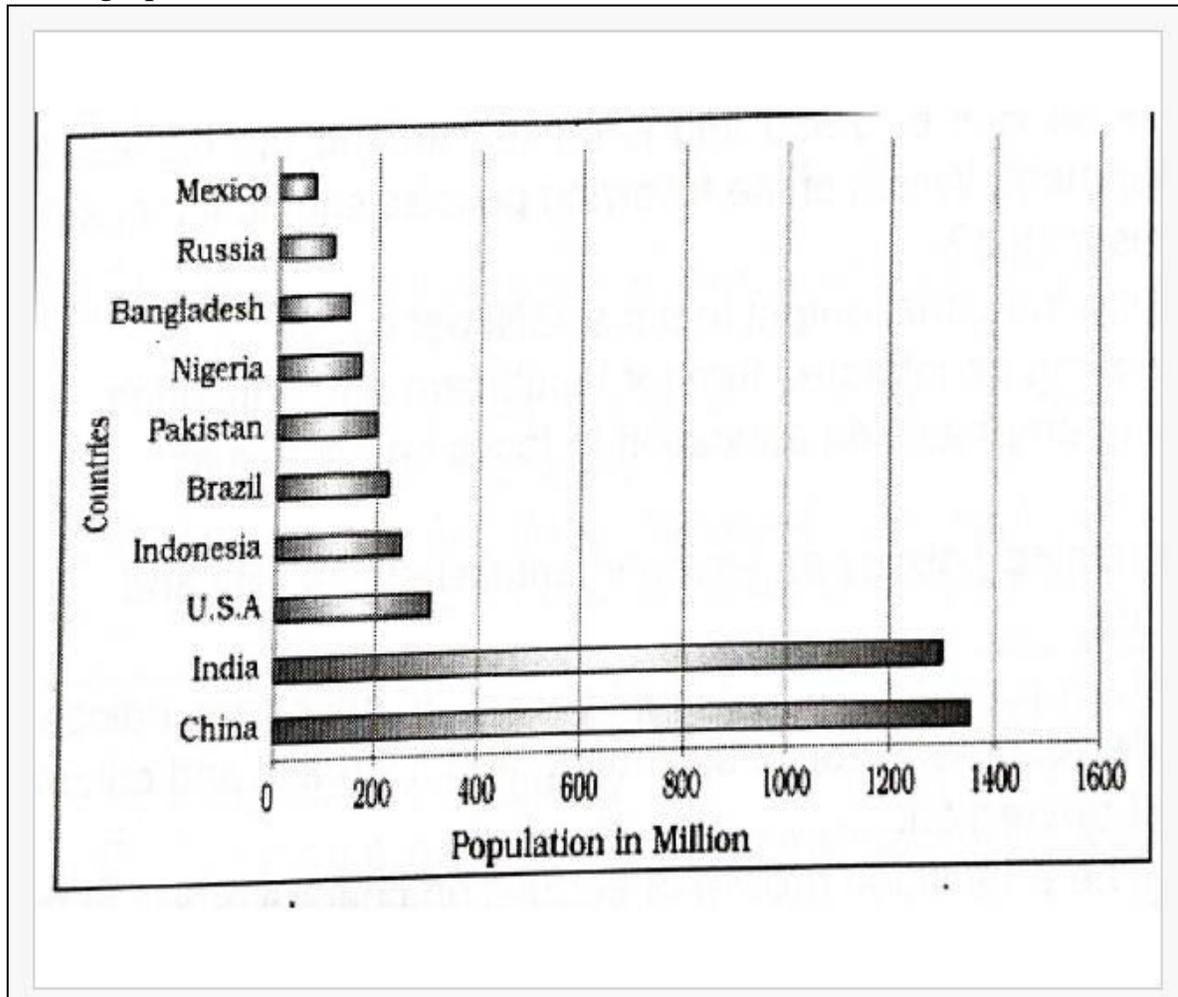
a. 500 million
b. 400 million
c. 300 million
d. 200 million

SECTION B 3

18. Read the following passage carefully and answer the questions that follow:

The existence of a market for manufactured goods is the most important factor in the location of industries. Market means people who have a demand for these votes and also have the purchasing power (ability to purchase) to be able to purchase from the sellers at a place. Remote areas inhabited by a few people offer small markets. The developed regions of Europe, N America, Japan and

Australia provide large global markets as the purchasing power of the people is very high. The densely populated regions of S and Southeast Asia also provide large markets. Some industries ,such as aircraft manufacturing, have a global market. The arms industry also has a global market.

Labour supply is an important factor in the location of industries. Some types of manufacturing still require skilled labour. Increasing mechanization, Automation and flexibility of industrial processes have reduced the dependence of industry upon the labours. Speedy and efficient transport facilities to carry raw materials to the factory and to move finished goods to the market are essential for the development of industries. The cost of transport plays an important role in the location of industrial unit.

    i)   Why are markets important for industries?
    ii)   Which industries have a global market?
    iii)   Which reasons are responsible that have reduced the dependence of industries upon the labours?

19   In agriculture,water is mainly used for irrigation. Irrigation is needed because   3 of spatio-temporal variability in rainfall in the country. The large tracts of the country are deficient in rainfall and are drought prone. Northwestern India and Deccan Plateau constitute such areas. Winter and summer seasons are more or less dry in most parts of the country. Hence, It is difficult to practice agriculture without assured irrigation during dry seasons. Even in the areas of ample rainfall like West Bengal and Bihar. Water needs of certain crops also makes irrigation necessary. For instance, the water requirement of rice, sugar cane, jute, etc is very high which can be met only through irrigation. Provision of irrigation makes multiple cropping possible. It has also been found that irrigated lands have higher agricultural productivity than non 6irrigated land. Further, High yielding varieties of crops need regular moisture supply, Which is made possible only by developed irrigation systems. In fact, this is why that Green Revolution strategy of agriculture development in the country has largely been successful in Punjab, Haryana and western Uttar Pradesh.

i) Why is irrigation needed?

ii) Which crops require an ample amount of water?

iii) How has irrigation helped in the development of agriculture in our country?

SECTION C 3

20. Explain how outsourcing has impacted both the countries that outsource work and the countries receiving outsourced jobs?.

21. Briefly discuss the problems of Indian agriculture? 3

OR

Explain what is productive irrigation?

22. Describe three different approaches of human development? 3

23 "If development is not engendered it is endangered ."Examine the statement in the context of inclusive development? 5

OR

Explain the causes of rapid positive growth of population in India from 1951 to 1981.

SECTION C 5

24 Formulate a development plan for the Bharmaur tribal region under the Integrated Tribal Development Project (ITDB), Focusing on improvement of agriculture, education, and livelihood opportunities, Considering the regions climatic conditions, socio-economic challenges, and potential for sustainable development.

OR

Describe any five measures for the promotion of sustainable development in Indira Gandhi Canal Command area?

25   Explain how pastoral nomadism is an adaptation to specific geographical conditions. Illustrate your answer with examples from different regions of the world.   5

OR

Enlist the characteristics of cooperative farming?

26   What are quaternary activities? Explain any three characteristics of quaternary activities.   5

27   How are towns classified based on the functional roles?   5

OR

Explain three features each of clustered settlements and semi clustered settlements.

28   Give an account of production and use of coal in India.   5

OR

"The promotion of the use of non conventional sources of energy in India is the need of the hour." Support the statement.

29   On the given political map of the world, the following seven geographical features are seen, identify any five of those features and write the correct names on the line marked near each feature.   5
      (a) A major area of commercial livestock rearing
      (b) An area of subsistence gathering.
      (c) An area of nomadic herding.
      (d) An area of commercial livestock rearing.
      (e) An area of mixed farming.
      (f) An area of subsistence gathering.
      (g) An area of extensive commercial grain farming.

30   On the given political map of India locate and label any five of the   5
      following with appropriate symbols:
      (a) The state with the highest density of population.
      (b) The state leading in production of coffee.
      (c) An oil refinery in Gujarat.
      (d) Copper mine located in Rajasthan.
      (e) The state with the lowest density of population.
      (f)   Coal mines in West Bengal.
      (h)The leading state in the production of sugarcane.

Name: _____ Sec: ____ Roll No.: ____

<div align="right">CODE: A</div>

BURNPUR RIVERSIDE SCHOOL, BURNPUR
HALF YEARLY EXAMINATION : [2025-26]
PHYSICAL EDUCATION
CLASS – XII

Time: 3 Hours   Maximum Marks:70

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General Instructions:-

1) *The question paper consists of 5 sections and 37 Questions.*   .
2) *Section A consists of question 1-18 carrying 1 mark each and is multiple choice questions. All questions are compulsory.*
3) *Sections B consist of questions 19-24 carrying 2 marks each and are very short answer types and should not exceed 60-90 words. Attempt any 5.*
4) *Sections C consist of question 25-30 carrying 3 marks each and are short answer types and should not exceed 100-150 words. Attempt any 5.*
5) *Section D consists of question 31-33 carrying 4 marks each and are case studies.*
6) *Sections E consist of question 34-37 carrying 5 marks each and are long answer types and should not exceed 200-300 words. Attempt any 5.*

==================================

SECTION – A

1   In a tournament of 21 teams, how many rounds will be played?   1
    a) 5   b) 6   c) 10   d) 4

2. In a fixture of 5 teams how many matches will be played by cyclic method?   1
    a) 15   b) 6   c) 10   d) 8

3. Which of the following is an objective of forming sports committees?   1
    committees?
    a) Establish goals   b) Defining tasks

c) Execution of plans   d) All of these

4. The factor that affects a child's motor development by birth is   1
a) Food and nutrition   b) Obesity
c) Genetic/ Biological   d) Environment

5. Exaggeration of a backward curve or decrease of a forward curve is _____   1
a) Lordosis   b) Kyphosis   c) Round shoulders d) Flat foot

6. The most appropriate way for increasing the participation of women in sports_____   1
a) Reducing the ticket price of women sports event.
b) Separate changing rooms for women players.
c) Reducing the participation fee for women in sports.
d) All the above

7. Gomukhasana, Anulom Vilom and Matsyasana are helpful in curing which disease?   1
a) Diabetes b) Backpain c) Asthama d) Obesity

8. According to WHO, the criteria for overweight as BMI is   1
a) 18.5 – 24.9 b) 25- 29.9 c) 30 – 34.9 d) 35-39.9

9. Match the following: 1

Column I	Column II
a) Vajrasana	(i) Reduce fat around waist
b) Katichakrasana	(ii) Cures obesity
c) Bhujangasana	(iii) Make digestive system function smooth
d) Ardha matsyendrasana	(iv) Spine gets a good stretch

a) A- (iii), B- (iv), C- (ii), D- (i)
b) A- (ii), B- (iii), C- (i), D- (iv)
c) A- (ii), B- (i), C- (iv), D- (iii)
d) A-(iii), B- (i), C- (iv), D- (ii)

10. The oath of special Olympic is   1
a) Let me run.
b) Let me play but if I cannot win, let me be brave in the attempt.
c) Let me win but if I cannot win, let me be brave in the attempt.
d) None of the above

11. Deaflympics were originally known as   1

a) International Deaf games
b) International Silent games
c) Games for the deaf
d) None of the above

12. Assertion (A): People with intellectual disabilities can learn,   1
enjoy and benefit from participation in sports with proper
help and encouragement.
Reason (R): Consistent training helps these people develop
their sports skills and provides incentives for personal
growth.
a) Both (A) and (R) are true, (R) is the correct explanation
of (A).
b) Both (A) and (R) are true, but (R) is not the correct
explanation of (A).
c) (A) is true but (R) is false.
d) A is false, but (R) is true.

13. The essential feature of a balanced diet is which of the   1
following?
a) Easily digestive
b) Inclusion of essential nutrients
c) Definite ratio between fats, protein and carbohydrate
d) All of the above

14. Which mineral is found in green leafy vegetables, milk and   1
meat?
a) Cobalt b) Phosphorus c) Copper d) Magnesium

15. Which of the following is a cause for food intolerance?   1
a) Absence of certain enzymes
b) Presence of certain chemicals
c) Not liking a particular food
d) Both (a) and (b)

16. Motor Fitness Test doesnot include which of the following?   1
a) Modified Pushups   b) 400 mt shuttle run
c) Sit and Reach test   d) Arm curl test

17. Before taking the motor fitness tests, students should do   1
which of the following?
a) Sleep b) Eat c) Warm up d) Rest

18. Identify the test shown in the image.   1

a) Chair sit and Reach test
b) Modified Push ups
c) Eight foot up and go test
d) Chair stand test

SECTION-B

19.	What do you mean by "Community" and "Sports"?	2
20.	What is "Menarche".	2
21.	Discuss the types of Diabetes.	2
22.	What are the categories of disability?	2
23.	Differentiate between balanced diet and Nutrition.	2
24.	Write a detailed note on Harvard step test.	2

SECTION – C

25.	Explain any three functions of planning.	3
26.	List down the reasons of lack of participation of women in sports in India.	3
27.	What is Ardha Halasana? Write their benefits and contraindication.	3
28.	Explain any three strategies to make physical activities accessible for children with special need.	3
29.	Why does the weight lifters diet include lots of protein?	3
30.	Explain chair sit and reach test for senior citizen fitness. How can we administer the test?	3

SECTION –D

31.	Based on the picture given below, answer the following questions.	1x4

a) Which muscles group is mainly stretched during Tadasana?
(i) Neck muscles
(ii) Abdominal muscles
(iii) calf muscles
(iv) Wrist muscles

b) Which of the following is Not a correct step in performing Tadasana?
(i) Standing straight with feet together
(ii) Raising arms upward
(iii) Bending backward
(iv) Breathing normally

(c) Which type of yogasana is Tadasana considered?
(i) Relaxing asana
(ii) Meditative asana
(iii) Standing asana
(iv) Inverted asana

(d) Why is Tadasana often taught as the first posture in yoga practice?
(i) It is easy to perform
(ii) It improves concentration
(iii) It sets the correct body posture for other asana
(iv) It helps in warming up the hands

32. Food is the basic requirement of every individual to fulfill the energy needs and to meet the development of the body. The nutritious diet directly affects the health of an individual. It contains various types of nutrients in it.   1x4

a) Major portion of individuals diet constitute ……… nutrients.
(i) Macro (ii) Micro (iii) Water (iv) Roughage

b) Fat soluble vitamins are ………….
(i) Vitamin A & D   (ii) Vitamin A & K
(iii) Vitamin E & D   (iv) Vitamin A, D, E, K

c) Body building nutrient is …………
(i) Fat (ii) Vitamin (iii) Protein (iv) Mineral

d) Ghee, Butter, Cheese and Curds are rich sources of ……
(i) Vitamins   (ii) Fats (iii) Minerals (iv) Proteins

33. Mr Lakshman, aged 65 years work as a civil engineer in a   1x4
construction company. He had to walk and climb a lot as part of his job. After retirement he settled with his son spending time with his grand children. Now a days he is experiencing difficulty in doing certain chores which involves physical movement.
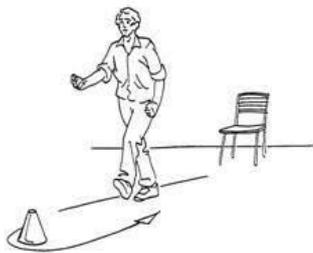
a) Which of the following test would you recommend to check to Mr. Lakshman's fitness?
(ii) Harvard step test   (ii) Rikli & Jones test
(iii) AAHPER test   (iv) Rockport test
b) Chair sit and reach test is done to check _____
(i) Agility (ii) Speed (iii) Flexibility (iv) Strength
c) Pick the odd one out
(i) Arm curl test   (ii) Chair stand test

(iii) 6 min walk test (iv) Partial curl up
d) The 8 foot up and go test, as shown in the picture is performed to assess_____
(i) Agility (ii) Endurance (iii) Speed (iv) Strength

SECTION –E

34.   Write a note on the term "Knockout". Make a Knock out fixture for 18 teams.   5

35.   What do you mean by Matsyasana in Sanskrit? Explain its procedure, benefits and contraindication.   5

36.   Vitamins are very essentials for working of the body and are divided into two groups. Explain about them.   5

37.   What is Body Mass Index? What does it measures? How can one measure height accurately?   5

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Name: _____ Sec: _____ Roll No.: _____

BURNPUR RIVERSIDE SCHOOL, BURNPUR
HALF YEARLY EXAMINATION [2025-2026]
PHYSICAL EDUCATION (048)
CLASS: XII

Time: 3 Hrs.   **Maximum Marks: 70**

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General Instructions:
1. The question paper consists of 5 sections and 37 questions.
2. Section-A consists of questions 1-18 carrying 1 mark each and is multiple choice questions. All are compulsory.
3. Section-B consists of questions 19-24 carrying 2 marks each and are very short answer types and should not exceed 60-90 words. Attempt any 5.
4. Section-C consists of questions 25-30 carrying 3 marks each and are short answer types and should not exceed 100-150 words. Attempt any 5.
5. Section-D consists of questions 31-33 carrying 4 marks each and are case studies.
6. Section-E consists of questions 34-37 carrying 5 marks each and are long answer types and should not exceed 200-300 words. Attempt any 3.

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SECTION-A
[All questions are compulsory]

Q.1.   In a league tournament, if there are 9 teams, how many   1
rounds will be required in the Cyclic method?
       (A)   9 rounds
       (B)   8 rounds
       (C) 6 rounds
       (D) 5 rounds

Q.2.   In a knock-out tournament, if 9 teams are participating   1
than,number of byes in upper half will be….
       (A)   3 byes
       (B) 4 byes
       (C) 5 byes
       (D) 2 byes

Q.3.   If N=11 than, how many matches will be there in single   1
        league and double league tournament?
            (A)   55 and 110 matches
            (B) 110 and 58 matches
            (C) 55 and 112 matches
            (D) 56 and 110 matches
Q.4.   Rickets is also known as….   1
            (A)   Knock knees
            (B) Bow legs
            (C) Round shoulder
            (D) Flat feet
Q.5.   Walking barefoot on sand or rough ground helps to   1
        correct….
            (A)   Flat feet
            (B) Club feet
            (C) Curved feet
            (D) Outward pointing feet
Q.6.   Identify the picture and choose correct option: 1
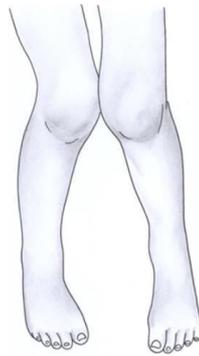
            (A)   Bow legs
            (B) Knock knees
            (C) Outward Curvature
            (D) Flat feet
Q.7.   Given below are two statements, one of which is labelled as   1
        Assertion (A) and other is labelled as Reason (R).
        Read both the statements carefully:

        Assertion (A):- Yoga enhances lung capacity and
        respiratory efficiency.
        Reason (R):- Pranayama and deep breathing exercises
        improve the oxygen carrying capacity of the blood.
        In the context of the above two statements, which one of
        the following is correct?

(A) Both Assertion (A) and Reason (R) are true and
Reason (R) is the correct explanation of Assertion
(A).

(B) Both Assertion (A) and Reason (R) are true, but
Reason (R) is not the correct explanation of
Assertion (A).

(C) Assertion (A) is true, but Reason (R) is false.

(D) Assertion (A) is false, but Reason (R) is true.

Q.8. Laydown in proline position slowly lift upper body (by
support of your hands) till naval. We are talking about
which asana?

(A) Pawanmuktasana
(B) Halasana
(C) Paschimottasana
(D) Bhujangasana

1

Q.9. Which asana is side twist pose?

(A) Shavasana
(B) Cow pose
(C) Chakrasana
(D) Ardha-matsyendrasana

1

Q.10. How much is the intervals between two subsequent
Paralympics Games?

(A) 2 years
(B) 3 years
(C) 4 years
(D) 1 year

1

Q.11. Given below are two statements, one of which is labelled as
Assertion (A) and other is labelled as Reason (R).
Read both the statements carefully:
Assertion (A):- Physical activities are not beneficial for
children with disabilities.
Reason (R):- Children with disabilities are at higher risk of
injury during physical activity.
In the context of the above two statements, which one of
the following is correct?

1

(A) Both Assertion (A) Reason (R) are true and Reason (R) is the correct explanation of the Assertion (A).

(B) Both Assertion (A) and Reason (R) are true, but Reason (R) is not the correct explanation of Assertion (A).

(C) Assertion (A) is true, but Reason (R) is false.

(D) Assertion (A) is false, but Reason (R) is true.

Q.12. Which of the following strategies is considered to make physical activities assessable for children with special needs?   1

(A) Regular medical check-up

(B) Special environment according to their needs

(C) Adapted physical education activities

(D) All of these above

Q.13. Given below are types of diet in List-I with their use in sports List-II.   1

	List-i (Diet)		List-II (Purpose)
(a)	Pre-event meal	(i)	Overall health
(b)	In-event meal	(ii)	Energy restoration
(c)	Post event meal	(iii)	Immediate energy
(d)	Balance diet	(iv)	Glycogen loading

Match the items of List-I with List-II and choose the correct option from the following:-

	(a)	(b)	(c)	(d)
(A)	iv	iii	ii	i
(B)	iv	ii	iii	i
(C)	iii	iv	ii	i
(D)	ii	i	iv	iii

Q.14. What is the other name of Vitamin B⁷ ?   1

(A) Riboflavin

(B) Biotin

(C) Niacin

(D) Thiamin

Q.15. Given below are types of food sources with List-I and their nutrients in List-II.   1

	List-i (Food items)		List-II (Nutrition)
(a)	Milk	(i)	Vitamin- C
(b)	Citrus food	(ii)	Protein
(c)	Eggs	(iii)	Calcium
(d)	Pulses	(iv)	Iron

Match the items of List-I with List-II and choose the correct option from the following:-

	(a)	(b)	(c)	(d)
(A)	iii	iv	ii	i
(B)	i	iv	iii	ii
(C)	iii	i	ii	iv
(D)	iii	ii	i	iv

Q.16. What are the age groups for which khelo-India Fitness assessment is to done in schools?   1
    (A) 5-9 years and 9-18 years
    (B) 5-8 years and 9-18 years
    (C) 5-8 years and 9- 19 years
    (D) All of these

Q.17. In which year Harvard Step Test was developed ?   1
    (A) In 1923
    (B) In 1933
    (C) In 1943
    (D) In 1953

Q.18. How much distance will be there between centres of 2 discs in the Plate tapping test?   1
    (A) 40 cm
    (B) 60 cm
    (C) 50 cm
    (D) 25 cm

SECTION-B
[Attempt any 5 questions]

Q.19. What are the combination types of tournaments?   2
Q.20. What is menstrual dysfunction?   2
Q.21. Write any two contraindications of Shavasana.   1+1

Q.22.	What do you mean by disability?	2
Q.23.	What do you mean by roughage?	2
Q.24.	What is BMI? Calculate BMI of a child whose weight is 72 kg and height is 1.68mt.	1+1

SECTION-C
[Attempt any 5 questions]

Q.25.	List the essential points that must be considered while preparing fixture for a knock-out tournament.	3
Q.26.	What are the main causes of scoliosis? Which physical activity works as a corrective measure for this deformity?	1+2
Q.27.	"Asanas can be used as a preventive measures." Discuss any three preventive measures in detail.	3
Q.28.	Describe the following:- (a) Paralympics Games (b) Deaflympics Games	1½+1½
Q.29	Write a note on water along with its functions.	3
Q.30.	What is the purpose of 600 m run/ walk in Khelo-India Fitness Test? Write its procedure.	3

SECTION-D
[Internal choices available]

Q.31.

Based on the above given picture, answer the following questions:-

(i) Identify the primary muscle group stretched in the pose shown above in the image.
(A) Hamstring
(B) Calf muscles
(C) Deltoid muscles
(D) Quadriceps muscles

(ii) What is the key benefit of performing the Yoga posture shown in the above image?
(A) Improves spinal flexibility
(B) Enhancing core stability
(C) Strengthening leg muscles
(D) Increasing arm strength

4

(iii) The pose shown in the above image primarily aids in opening which part of the body?

(A) Shoulders
(B) Elbows
(C) Knees and Shoulders
(D) Chest and Shoulders

(iv) Your 60 years old aunt is advised to do yoga asana to reduce obesity. Which of the following asana is suitable for her?

(A) Bhujangasana
(B) Pawanmuktasana
(C) Vajrasana
(D) Chakrasana

Q.32. Nitish Kumar, a state level wrestler has been advised by his coach to take adequate amount of simple carbohydrates, vitamins, minerals and protein in his diet along with its training schedule.

4

Answer the following questions based on the above case and your prior knowledge:-

(i) What type of macro-nutrient is primarily involved in muscle repair?

(A) Carbohydrates
(B) Minerals
(C) Fats
(D) Proteins

(ii)   What type of fat is typically considered unhealthy and linked to Cardiovascular diseases?

(A) Saturated
(B) Unsaturated
(C) Polyunsaturated
(D) Monounsaturated

(iii)   What type of carbohydrates is stored in the liver and muscles for energy?

(A) Glucose
(B) Sucrose
(C) Glycogen
(D) Fructose

(iv)   At least how much of protein is required after competition to enhance muscle recovery?

(A) 20 gm
(B) 30 gm
(C) 40 gm
(D) 50 gm

Q.33.   CBSE made it compulsory for all schools to follow khelo-India Fitness Test for practical physical education board examination. This test describes an athlete's ability to perform effectively during sports or other physical activity. Progress is measured and grading is done on the basis of these measurements.

KHELO INDIA

Answer the following questions based on the above case and your prior knowledge:-   4

(i)   Name the test which aims to determine acceleration and speed?

(A) 600 m run
(B) Harvard Step Test
(C) 50 m standing start
(D) Skipping

(ii)   Partial curl-up test helps in the development of which component?
(A)   Speed
(B) Acceleration
(C) Core strength
 (D) Speed and endurance

(iii)   What is the name of the test for measurement of endurance?
(A)   Push-ups
(B) Modified push-up
(C) 600 m run
(D) Partial curl-up

(iv)   Name the shoulder strength and endurance test for girls….
(A)   Push-ups
(B) Skipping
(C) Modified push-up
 (D) 50 m run

SECTION-E
[Attempt any 3 questions]

Q.34.	What is special seeding? Give an example of special seeding fixture.	1+4=5
Q.35.	Describe the procedure and benefits of Mandukasana and Makarasana to control hypertension.	2½+2½ =5
Q.36.	What do you mean by food myths? Discuss briefly about various food myths with their facts.	1+4=5
Q.37.	Explain which two khelo-India Fitness Test for developing strength among school's children ?	2½+2½ =5

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Name: _____ **Sec:** ____ **Roll No.:** ____

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General Instructions:

1. Please read the instructions carefully.

2. This Question Paper consists of **17 questions** in two sections – Section A & Section B.

3. Section A has Objective type questions whereas Section B contains Subjective type questions.

4. **A candidate has to answer all the 17 questions in the allotted (maximum) time of 3 hours.**

5. All questions of a particular section must be attempted in the correct order.

6. **SECTION A - OBJECTIVE TYPE QUESTIONS (30 MARKS):**

    i. This section has 06 questions.

    ii. There is no negative marking.

    iii. Do as per the instructions given.

    iv. Marks allotted are mentioned against each question/part.

7. **SECTION-B: SUBJECTIVE TYPE QUESTIONS(30 MARKS):**

    i. This section contains 11 questions.

    ii. A candidate has to do all the 11 questions.

    iii. Do as per the instructions given.
    iv. Marks allotted are mentioned against each question/part.

==

1. **Answer the following 4 questions on**
    Employability Skills (4 x 1 = 4 marks)

    i.   What do you understand by 'Formatting' in Calc?   1

    ii.   Sunita owns a construction company and takes risky decisions   1
everyday, with regard to her work. Reema is an _____.
a. Entrepreneur   b. Wage employee person
c. Skilled worker   d. none

    iii.   Identify the type of sentence: 1
'Stop feeding the dog!'
a. Declarative Sentences   b. Interrogative sentences
c. Imperative Sentences   d. none

    iv.   State whether the following statement is **True** or **False**:   1
'The first step towards practicing self-awareness is to become
aware of one's emotions.'

2. **Answer the following 5 questions**
    (5 x 1 = 5 marks)

    i.   Which of the following is a client-side script?   1
a. JavaScript   b. HTML   c. Both (a) & (b)   d. none

    ii.   NIC stands for _____.   1
a. National Intelligence Centre   b. National Informatics Centre
c. National Information Centre   d. None

    iii.   Name the domain where database applications may be used for   1
storing details of electoral roll, all types of taxes, criminal
records.
a. E-Commerce   b. Government Sector
c. Private Sector   d. none

    iv.   _____ command is used to create a new table or relation.   1
a. NEW TABLE   b. CREATE TABLE
c. ADD TABLE   d. none

    v.   _____ command is used to delete a table from a database.   1
a. DELETE TABLE   b. REMOVE TABLE
c. DROP TABLE   d. none

3.   **Answer the following 6 questions**
                           (6 x 1 = 6 marks)

    i.   Which SQL keyword is used to sort the result?   1

    ii.   Shalini wants to input the price of shoes as 999.99 . What should 1
         be the datatype and size of the column price in the table?

    iii.   In the table **STUDENT**, Ishan doesn't want repeated values in 1
         column **section.**

         Rewrite the correct command.
           select section from STUDENT;

    iv.   Name the domain where database applications may be used for 1
         maintaining information regarding patients such as their personal
         details, health records, hospitalization date.

    v.   In 'https://', what does 's' stands for? 1
         a. standard   b. standalone   c. secure   d. none

    vi.   <u>Fill in the blank:</u> 1
         ICT stands for _____.

4.   **Answer the following 5 questions**
                           (5 x 1 = 5 marks)

    i.   Name the domain where database applications may be used for 1
         storing information such as student details, marks and result.
         a. Education   b. Hospitals   c. E-commerce   d. none

    ii.   In which year NICNET was launched? 1

    iii.   Which command is used to modify the structure of the table after 1
         making the table?

    iv.   What is the use of Alias name to columns? 1

    v.   Which of the following is an email program? 1
         a. Yahoo   b. AOL   c. Both (a) & (b)   d. none

5.   **Answer the following 5 questions**
                           (5 x 1 = 5 marks)

    i.   Give any two examples of web-based applications. 1

    ii.   Name the domain where database applications may be used for 1
         keeping track of online and offline reservations.

iii.	What do you understand by the Cardinality of a relation?	1
iv.	Which command gives the user access privileges to the database?	1
v.	The following commands are giving errors. Write the correct MYSQL commands.	1

   (a) SELECT AVERAGE(MARKS) FROM STUDENT;
   (b) UPDATE EMPLOYEE SALARY = SALARY + SALARY*0.1;

6. **Answer the following 5 questions**
   (5 x 1 = 5 marks)

i.	Expand NSP.	1
ii.	What does MOOCs stands for?	1
iii.	Name the domain where database applications may be used for storing information regarding doctors, nurses, staff members, rooms, medical equipment and medicines. a. Hospitals b. Hotels c. Airlines d. none	1
iv.	Which operator is used for handling pattern matching in MySQL?	1
v.	Write SQL code to display the records with NULL values in column 'mobilephone_no' from FEE table.	1

SECTION-B: SUBJECTIVE TYPE QUESTIONS
Answer the following 3 questions on
Employability Skills (3 x 2 = 6 marks)

7.	What is a Start up? *(Write any two valid points)*	2
8.	What do you understand by Horizontal alignment in Calc? Name the seven types of Horizontal alignments in Calc.	2
9.	What is the use of SMART model? Expand SMART.	2

Answer the following 3 questions (3 x 2 = 6 marks)

10.	Name the various types of users of DBMS.	2
11.	Write the full forms of the following: a. NeGP b. DARPG	2

12.	What is Work Integrated Learning (WIL)?	2

<u>Answer the following 2 questions (2 x 3 = 6 marks)</u>

13.	Consider a MySQL table named as 'Employee' with the following fields: empid, empname, dob, salary, deptid. Write down SQL queries for the following:	3

    i)   Display the maximum salary with column name as max_salary.

    ii)   Display the total number of employees with column name as count_emp.

    iii)   Display employee ID and name of those employees whose salary is more than 50000.

14.	Discuss any three main purposes of using Database applications in banking domain.	3

15. Consider the tables SHOPPE and ACCESSORIES, write the   4
    SQL query for (i) to (iv).

Table : SHOPPE

Id	SName	Area
S01	ABC Computronics	CP
S02	All Infotech Media	GK II
S03	Tech Shoppe	CP
S04	Geeks Tecno Soft	Nehru Place
S05	Hitech Tech Store	Nehru Place

Table : ACCESSORIES

No	Name	Price	Id
A01	Mother Board	12000	S01
A02	Hard Disk	5000	S01
A03	Keyboard	500	S02
A04	Mouse	300	S01
A05	Mother Board	13000	S02
A06	Keyboard	400	S03
A07	LCD	6000	S04
T08	LCD	5500	S05
T09	Mouse	350	S05
T10	Hard Disk	4500	S03

(i)   To display Name and Price of all the Accessories in descending order of their Price.

(ii) To display Id and Sname of all the Shoppe location in "Nehru Place".

(iii) To display Name, Minimum and Maximum Price of each Name from ACCESSORIES table.

(iv) To display Name, Price of all Accessories and their respective SName from table SHOPPE and ACCESSORIES where Price is 5000 or more.

16. Define the following terms: 4
   a) Foreign Key
   b) Domain
   c) Record
   d) Field

17. Write any four benefits of online shopping. 4

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Name: _____ Sec: _____ Roll No.: _____

BURNPUR RIVERSIDE SCHOOL, BURNPUR
HALF YEARLY EXAMINATION: [2025-2026]
INFORMATION TECHNOLOGY (802)
CLASS – XII

Time: 3 Hrs.   **Maximum Marks: 60**
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General Instructions:

1. Please read the instructions carefully.

2. This Question Paper consists of **17 questions** in two sections – Section A & Section B.

3. Section A has Objective type questions whereas Section B contains Subjective type questions.

4. **A candidate has to answer all the 17 questions in the allotted (maximum) time of 3 hours.**

5. All questions of a particular section must be attempted in the correct order.

6. **SECTION A - OBJECTIVE TYPE QUESTIONS (30 MARKS):**

    i.   This section has 06 questions.

    ii. There is no negative marking.

    iii. Do as per the instructions given.

    iv. Marks allotted are mentioned against each question/part.

7. **SECTION-B: SUBJECTIVE TYPE QUESTIONS(30 MARKS):**

    i.   This section contains 11 questions.

    ii. A candidate has to do all the 11 questions.

    iii. Do as per the instructions given.
    iv. Marks allotted are mentioned against each question/part.
===

SECTION-A

OBJECTIVE TYPE QUESTIONS

1.   **Answer the following 4 questions on**
      Employability Skills (4 x 1 = 4 marks)

    i.   What do you understand by 'Slide Layout'?   1

    ii.   Individuals, who focus on developing solutions that benefit the   1
society, are called _____.
a. Social Entrepreneurs   b. Family Business Entrepreneurs
c. Professional Entrepreneurs   d. none

    iii.   Identify the type of sentence: 1
'All delicious things are tasty.'
a. Declarative Sentences   b. Interrogative sentences
c. Imperative Sentences   d. none

    iv.   State whether the following statement is **True** or **False**:   1
'The second step towards practicing self-awareness is by
tracking one's feelings.'

2.   **Answer the following 5 questions**
      (5 x 1 = 5 marks)

    i.   Which of the following is a server-side scripts?   1
a. PHP   b. ASP   c. Both (a) & (b)   d. none

    ii.   NeGD stands for _____.   1
a. National e-Governance Digital
b. New e-Governance Division
c. National e-Governance Division
d. None

    iii.   Name the domain where database applications may be used for   1
storing information regarding communication networks,
customers, call records, and their bills.
a. E-Commerce   b. Government Sector
c. Telecommunications   d. none

    iv.   _____ command is used to delete records from a table.   1
a. DELETE   b. REMOVE
c. DROP   d. none

v. _____ command is used to create a new database.   1
     a. NEW DATABASE   b. CREATE DATABASE
     c. ADD DATABASE   d. none

3.   **Answer the following 6 questions**
(6 x 1 = 6 marks)

i. Which function finds the sum of all the values for a selected   1
attribute which has numeric data type?

ii. What is the use of Alias name to columns?   1

iii. Rohini wants to input the price of shoes as 9999.99 . What   1
should be the datatype and size of the column price in the table?

iv. Name the domain where database applications may be used for   1
storing information regarding hotel staff, menu items and
infrastructure.
a. Hotels   b. Hospitals   c. E-commerce   d. none

v. Which of the following is an email program?   1
a. Yahoo   b. AOL   c. Both (a) & (b)   d. none

vi. _____ reservation can be made from anywhere around the world   1
irrespective of a physical location.

4.   **Answer the following 5 questions**
(5 x 1 = 5 marks)

i. Name the domain where database applications may be used for   1
storing information regarding doctors, nurses, staff members,
rooms, medical equipment and medicines.
a. Hospitals   b. Hotels   c. Airlines   d. none

ii. Write down the Indian e-governance portal.   1

iii. Which command is used to cancel previously granted or denied   1
permissions?

iv. Which command is used to modify the value of attribute of one   1
or more tuple in a table.

v. In 'https://', what does 's' stands for?   1
a. standard   b. standalone   c. secure   d. none

5. **Answer the following 5 questions**
   (5 x 1 = 5 marks)

    i.   What do you understand by Project Management?   1

    ii.   Name the domain where database applications may be used for   1
storing information such as student details, marks and result.

    iii.   If a user has not entered a value for an attribute, then which   1
value that is specified while creating the table is used?

    iv.   What do you understand by the Degree of a relation?   1

    v.   Write SQL code to display the records with no NULL values in   1
column 'class' from STUDENT table.

6. **Answer the following 5 questions**
   (5 x 1 = 5 marks)

    i.   What does MOOCs stands for?   1

    ii.   Expand NSP.   1

    iii.   Name the domain where database applications may be used for   1
storing details of electoral rolls, all types of taxes, criminal
records.
    a. E-Commerce   b. Government Sector
    c. Private Sector   d. none

    iv.   Name the two wild card characters used for pattern matching in   1
MySQL.

    v.   The following commands are giving errors. Write the correct   1
MYSQL commands.

    (a) SELECT MAXIMUM(MARKS) FROM STUDENT;

    (b) SELECT * FROM ITEM
        WHERE COSTPRICE > 5000
        ORDER BY ITEMNAME DESCENDING;

SECTION-B: SUBJECTIVE TYPE QUESTIONS
Answer the following 3 questions on
Employability Skills (3 x 2 = 6 marks)

7.   What do you understand by 'Family Business Entrepreneurs'?   2

8.   What is the use of Sum( ) function? Give its syntax.   2

9.   What is Self-Awareness?   2
    Why Self-Awareness is important in your lives?

10.   Write the four commands that are a part of DML commands.   2

11.   Write the full forms of the following: 2
           a. DEITY   b. DISNIC

12.   Why database management systems are used in various   2
           domains?

Answer the following 2 questions (2 x 3 = 6 marks)

13.   Consider a MySQL table named as 'Student' with the following   3
           fields: srollno, sname, sdob, totmarks.
           Write down SQL queries for the following:

             i)   Display the minimum total marks with column name as min_totmarks.
             ii)   Display the total number of students with column name as count_stu.
             iii) Display student roll number and name of those students whose total marks is less than 300.

14.   Discuss any three main purposes of using Database applications   3
           in education domain.

Answer the following 3 questions (3 x 4 = 12 marks)

15.   In a database there are two tables :   4

Table : Doctor

DocID	DocName	Specialist
D001	Vimal Jha	Cardio
D002	Sunil Bawra	Ortho
D003	Mukul Barman	Surgeon
D004	Nitesh Solanki	Skin

Table : Patient

PatID	PatName	DateAdm	DocID
P001	Kapil	2013-10-10	D002
P002	Susheel	2013-09-01	D001
P003	Wasim	2013-10-15	D002
P004	Sanjay	2013-10-12	D003
P005	Jai	2013-10-17	D003

Write the MySQL queries for the following :
  (i) To display PatID, PatName, and corresponding DocName of "Cardio" and "Ortho"patient
  (ii) To display DocName, PatName of those patient who are admitted before 15-Oct-2013
  (iii) To display patient ID and patient name only.
  (iv) To display the structure of the 'Doctor' table.

16.   What are constraints? Give three differences between Primary   4
         key and unique key constraints.

17.   Write four characteristics of a project.   4

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