

Name: _____ Sec: _____ Roll No: _____

SET:A

BURNPUR RIVERSIDE SCHOOL, BURNPUR

ANNUAL EXAMINATION : [2024-2025]

ENGLISH CORE

Class – XI

Time Allowed : 3 Hours

Maximum Marks : 80

GENERAL INSTRUCTIONS

Read the following instructions very carefully and strictly follow them:

1. *This question paper has 13 questions. All questions are compulsory.*
2. *This question paper contains three sections:*
Section A: Reading Skills
Section B: Creative Writing Skills
Section C: Literature
3. *Attempt all questions based on specific instructions for each part.*
Write the correct question number and part thereof in your answer sheet.
4. *Separate instructions are given with each question/part, wherever necessary.*
5. *Adhere to the prescribed word limit while answering the questions.*

SECTION - A [READING]

26

1.

Read the passage given below:

1. My father, the late Dr. Gustav Bucky, was the physician to Einstein's two stepdaughters and this relationship had prompted the professor to invite us to dinner once. My father and he became friends and from then onwards I spent my summer vacations at his home for the next eight years.

2. To a boy, Einstein was a God. Even his appearance had a God-like distinctiveness – the massive head with its unruly mane of hair; the ragged moustache; the deep, gentle eyes that could twinkle with amusement; the droopy upper lids; and the soft, expressive wrinkles that creased his face.
3. One time, after I had known him for several years, I impulsively remarked that it might be time for him to abandon a frayed stretched sweater that was part of his daily uniform. His sudden, cool silence told me that I had stepped across the line.
4. Yet he had a good sense of humour. His only reading for fun was Emily Post's book on etiquette. He read the book in his bedroom and study in the evening and his sharp laugh rattled through the house.
5. Einstein's friends never expected him to behave in the conventional manner. Yet his regard for others often prompted him to do the conventional thing. When I was ill with tuberculosis at a veteran's hospital in the Bronx, Einstein created a sensation there by visiting me. I was tremendously moved. I knew how much he disliked to leave his work, how much he was bored by the two-and-a-half-hour automobile trip and how pained he felt under public scrutiny.
6. Since we knew how Einstein was tortured by formal occasions, we didn't invite him to any wedding in 1953 at the Plaza in New York. He showed up without being invited. He was dressed in a dark suit, with white shirt and tie – the perfect attire for the proceedings, according to his standards.
7. The problem of keeping an important secret may produce a sweaty conflict in most people, but not in Einstein. I was hardly a hundred feet from him during one of the most important meetings of this century and I never knew about it. During the summer of 1939, I was staying at Einstein's vacation house near Southold on the tip of Long Island. On 1st August, the housekeeper told me that a group of

scientists were coming to visit the professor. When the visitors left, Einstein made no reference to the meeting. I only remember his expressing a vague fear in late 1944 that Germany might be making progress towards a new and terrible weapon.

8. After the United States exploded the first atomic bomb, the bits and pieces of the story behind its development began to sift out. Only then did I realize what had happened during the meeting on that August day. Fermi, Szilard and a few other physicists had persuaded Einstein to write to Roosevelt, the famous letter, now in the Library of Congress, that prompted the President to launch the Manhattan Project for the production of the atomic bomb.
9. He won the Nobel Prize for his Photoelectric Theory – a series of equations that he considered relatively minor in importance – but he didn't have any curiosity in observing how his theory made television possible.
10. One puzzle that Einstein could never understand was his own fame. He had developed theories that were quite esoteric and capable of exciting comparatively few scientists. Yet his name was a household word across the civilized world. He was baffled by the phenomenon of himself. "I've had good ideas and so have other men," he once said. "But it's been my good fortune that my ideas have been accepted." He was bewildered by the deluge of the public attention; people wanted to meet him, strangers stopped on the street to stare and smile at him. Scientists, statesmen, students and housewives wrote him letters. He could never understand why he received this attention, why he was singled out as someone special.

On the basis of your understanding of the above passage, answer 10 the following questions:

- i. Complete the following sentence by choosing an appropriate option. 1
The author was well-known to the professor because

- a. he was his friend
- b. he was his classmate
- c. he was his teacher
- d. his father was the physician to his two stepdaughters

ii. Select the option that conveys the opposite of 'familiar', from the words used in paragraph 10.

- a. civilized
- b. baffled
- c. deluge
- d. esoteric

iii. The writer would not agree with the given statements based on the passage EXCEPT

- a. Einstein knew why he was so famous
- b. Einstein did not have a sense of humour
- c. Einstein did not go to the author's wedding as he was not invited
- d. Einstein's friends never expected him to behave in the usual manner

iv. Pick the option that correctly lists the final feelings of the writer with reference to his experience with Einstein.

1. Hatred	4. Appreciation
2. Sympathy	5. Love
3. Awe	6. Care

Codes

- a. 1 and 2
- b. 3 and 6
- c. 4 and 5
- d. 3 and 4

v. The famous scientists mentioned in the passage are

1. Fermi	3. Dr. Bucky
2. Szilard	4. Roosevelt

1

Codes

- a. 1 and 3
- b. 2 and 4
- c. 1 and 2
- d. 3 and 4

vi. List two things that the professor disliked.

1

vii. What important 'secret' was kept by Einstein in the summer of 1939?

1

viii. List some of the characteristics of Einstein.

1

ix. What was a part of Einstein's dress? What prompted the author to comment on it?

1

x. Complete the given sentence.

1

'Bits and pieces' in the first line of paragraph 8 means

2. Read the passage given below.

1. Social media addiction is an emerging health problem in India, especially among the young population. Nowadays, irrespective of their socioeconomic background, adolescents have greater exposure to electronic gadgets like smartphones at a much younger age. The introduction of internet and the launch of low-cost data packages in 2016/2017 has put India on the global map for large-scale consumption of mobile data with active social media users going up to 197 million (14% of the population).

2. For adolescents, phone-based communication is an important way to maintain their social relationships. The use of social media websites then is one of the most common activities that has become an

integral part of their day-to-day lives. Hence, making them more prone to social media overuse or addiction which may have a deleterious effect on the physical, and psychological health. Hence, it became important to study the pattern of social media usage and associated physical and mental health issues among Pre-University (PU) college students as they are the vulnerable group.

3. A cross-sectional study was conducted in Government and Private PU colleges situated in Urban Bengaluru city, Karnataka, India, during July to December 2016. The objectives of the study were to assess and compare the prevalence of social media addiction in different organizations, to assess the health problems related to social media usage and to assess the various factors associated with social media addiction.
4. A total of 1870 study participants were recruited from Government and Private PU colleges. Each participant was administered a pretest and semi-structured questionnaire as the study tool. They were asked to answer about the non-academic usage of social media. Scale comprised 10 questions, each given a score ranging from 0 to 4 (0-never, 1-seldom, 2-occasionally, 3-often and 4-always), with a minimum score of 0 and a maximum score of 40. Participants were classified based on the scores as: Normal (<12), mild addiction (13-20), moderate addiction (21-32) and severe addiction (≥ 33). Distribution of Study Subjects According to Grading of Social Media Addiction*

Grading	Government	Private	Total
Mild	182 (80.8)	191 (66.3)	373 (72.7)
Moderate	39 (17.3)	93 (32.2)	132 (25.7)
Severe	4 (1.9)	4 (1.5)	8 (1.6)
Total	225 (100)	288 (100)	513 (100)

** Figures in parenthesis indicate percentages*

5. There was no difference in the prevalence of Social Media Addiction between Government and Private PU college study subjects contrary to the assumption that Private college subjects will be more prone to social media addiction due to higher social status and purchasing capacity.

On the basis of your understanding of the above passage, answer 8 the following questions:

i. The study tool used in the survey comprised of 1

- a. yes-no questions
- b. a scale-based questionnaire
- c. some physical and IQ based tests
- d. both (b) and (c)

ii. Which of the following was NOT an objective for the study? 1

- a. To assess the health problems associated with social media usage.
- b. To assess and compare the prevalence of social media in a particular organization.
- c. To assess the various factors related to social media usage.
- d. To assess and compare the prevalence of social media in different organizations.

iii. Complete the following sentence by selecting the most appropriate option. 1

The participants of the survey were asked to answer about the usage of social media.

- a. academic
- b. non-academic
- c. casual
- d. sober

iv. Complete the sentence by selecting the most appropriate option. 1

The students were classified into categories based on their

- a. three, scores
- b. four, scores
- c. five, addiction
- d. four, usage

v. Does the following statement agree with the information given in paragraph 1? 1

Adolescents belonging to poor families do not have greater exposure to smartphones at a much younger age.

Select from the following:

True – if the statement agrees with the information.

False – if the statement contradicts the information.

Not Given – if there is no information on this.

vi. Give one reason for the rise in active social media users in India. 1

vii. Complete the sentence based on the following statement. 1

It was assumed that private college students will be more prone to social media addiction. This was because of their

viii. What makes the adolescents susceptible to social media overuse? 1

3. **Read the given passage:** 8

1. To date, happiness has defied definition. Most people tend to equate happiness with fun, good living and plenty of money. If happiness were synonymous with all this, rich people with all their luxuries and

countless parties would be perpetually happy.

2. But in actual fact, they are, frequently, acutely unhappy, despite their riches and ability to indulge in fun activities at will. Fun is what we experience during an act; happiness is that intangible something we experience after an act. We may have fun watching movies, going shopping, meeting friends; these are all fun activities that afford us fleeting moments of relaxation and enjoyment. Happiness, on the other hand, is a much stronger, deeper and more abiding emotion.
3. If we perceive happiness as the ultimate goal, we must also devise a way to reach that goal. The way to happiness is not a smooth, broad highway along which we can cruise at a comfortable speed. It is a path through rocky and rugged terrain and the going can become very tough at times. At these times we have to roll up our sleeves and with pitchfork and shovel, make our way onwards. The pursuit of happiness lasts a lifetime. Great happiness is earned only by great effort and effort not in spurts but diligent, constant effort.
4. In this connection we are confronted with another fallacy, that fun and pleasure mean happiness and thus pain, its corollary, must be synonymous with unhappiness. But in fact, the truth is quite different. Things that bring us happiness, more often than not, involve some amount of pain.
5. It is because of misconception that people avoid the very endeavour that is the source of true happiness. Difficult endeavours such as raising of children, establishing deeper relationships with loved ones, trying to do something worthwhile in life hold the promise of a world of happiness.
6. A secret ingredient of happiness is contentment. Contentment here does not mean apathy or lack of ambition, just as commitment does not mean curtailment of freedom. Commitment teaches us to give so that we may receive and contentment helps us to cherish the gifts we have received. These things are worth a try even if they don't promise access to the pinnacle of success. Success, after all, has been

described as getting what one wants, whereas happiness is liking what one gets.

i On the basis of your reading of the above passage make notes on it, using headings and sub-headings. Use recognizable abbreviations, wherever necessary. Also supply an appropriate title to it. 5

ii Write a summary of the above passage. [50 words] 3

SECTION – B [GRAMMAR & WRITING] 23

4. Read the passage below and fill in the missing words appropriately. 4

The human body is like a machine containing (a) systems (b) out the processes of life. Each system is (c) up of organs (d) consist of specialized cells and tissues.

a. (i) little	(ii) several	(iii) much	(iv) more
b. (i) to carry	(ii) carry	(iii) carries	(iv) carried
c. (i) makes	(ii) making	(iii) make	(iv) made
d. (i) that	(ii) who	(iii) whose	(iv) those

5. Rearrange the following words/phrases to form meaningful sentences. [ANY THREE] 3

- Perhaps / in / health / the greatest / is / wealth / the world
- is / key / progress / health / the / and / in / success / life / to
- beggar / happier / healthy / an / ailing / a / is / than / king
- healthy / all / and / man / life / pleasure / to / a / is / joy

6. Answer ANY ONE question out of the two given below in about 50 words. 3

A You are Mohini / Mohan, General Manager of Starlight Industries, Hyderabad. You need an accountant for your company. Draft an advertisement to be published in 'The Times Of India' in the classified columns.

OR

B You are Nisha / Nishant. Draft a classified advertisement to be published in India Times for the sale of a used motor car giving all the necessary details You can be contacted at 9823456798.

7. **Answer ANY ONE question out of the two given below. 3**

A Design a poster to encourage tourism by promoting the concept of ‘Incredible India.’

OR

B Design a poster creating awareness about do’s and don’ts (for public) to prevent bomb blasts.

8. **Answer ANY ONE question out of the two given below in about 5 120-150 words.**

A The success of any business or consumer product in today’s world depends in part on the target market’s ability to distinguish one product from another. Branding helps consumers to ultimately identify a product from those in competition. Write a speech for the morning assembly on the topic ‘Brand Names Cost More – But is the Quality Better?’ You are Akansha / Akash.

OR

B The Internet has become essential in our life today. Some browse for many hours at a stretch every day. Write a speech to be delivered in an Inter-Class Declamation Contest on the topic “The Harms of Excessive Internet Browsing.”

9. **Answer ANY ONE question out of the two given below in about 5 120-150 words.**

A Write a debate either for and against the motion. The topic of the debate is “The policy of reservation of seats for admission to the professional courses is good for the deprived sections of the society” You are Supriya / Supratim.

OR

B “Online Smart Classes are the Future of Education Style.” Write a debate either for or against the motion.

SECTION – C [LITERATURE]

31

10. **Read the extracts given below and attempt ANY ONE of the two, 3 by answering the questions that follow.**

A When did my childhood go?

Was it the time I realized that adults were not
all they seemed to be,
They talked of love and preached of love,
But did not act so lovingly,
Was that the day!

(Childhood)

i. Identify the poet. 1

- a. Shirley Toulson
- b. Ted Hughes
- c. Walt Whitman
- d. Markus Natten

ii. The stanza exposes the _____ of the adults. 1

iii. According to the extract, when did his childhood go? 1

OR

B Yet have I killed
The seed I spent or sown it where
The land is his and none of mine?
We speak like strangers, there's no sign
Of understanding in the air
This child is built to my design
Yet what he loves I cannot share.

(Father to son)

i. What does the father feel in the given lines? 1

- a. That his son is responsible for the situation.
- b. That he is responsible for the situation.
- c. That no one can be blamed for the situation.
- d. That he himself should correct the situation.

ii. “This child is built to my design” means that 1

iii. What is the rhyme scheme of the given lines? 1

11. **Read the extracts given below and attempt ANY ONE of the two, by answering the questions that follow. 3**

A She hobbled about the house in spotless white with one hand resting on her waist to balance her stoop and the other telling the beads of her rosary. Her silver locks were scattered untidily over her pale, puckered face, and her lips constantly moved in inaudible prayers. Yes, she was beautiful. She was like the winter landscape in the mountains, and expanse of pure white serenity breathing peace and contentment.

(The Portrait of a Lady)

i. What does the phrase ‘silver locks’ mean? 1

- a. locks made of silver
- b. shining hair
- c. white hair
- d. short hair

ii. What is a rosary? 1

iii. Give an example if simile from the extract. 1

OR

B Further on, where the plains became more stony than grassy, a great herd of wild ass came into view. Tsetan told us we were approaching

them long before they appeared. “Kyang,” he said, pointing towards a far-off pall of dust. When we drew near, I could see the herd galloping en masse, wheeling and turning in tight formation as if they were practicing manoeuvres on some predetermined course. Plumes of dust billowed into the crisp, clean air.

(Silk Road)

i.	The phrase ‘more stony than grassy’ means	1
	a. terrain had become hilly b. terrain now had less greenery c. terrain had become slippery d. Both (a) and (b)	
ii.	What is ‘Kyang’?	1
iii.	Who was Tsetan?	1

12. Read the extracts given below and attempt ANY ONE of the two, 4 by answering the questions that follow.

A Who’s the better for being spoilt – grown man, lad or girl? Nobody. You think it does ‘em good when you run after them all the time, take their orders as if you were the servant in the house, stay at home every night while they go out enjoying themselves? Never in all your life. It’s the ruin of them as well as you. Husbands, sons, daughters should be taking notice of wives an’ mothers, not giving ‘em orders an’ treating ‘em like dirt.

i.	Identify the figure of speech in “an’ treating ‘em like dirt.”	1
	a. metaphor b. alliteration c. pun d. simile	

ii. Who is the speaker of the above lines? 1

iii. The statement “It is the ruin of them as well as you” means _____. 1

iv. Which sentence in the above extract sums up the main theme of the play? 1

B As he gazed at the still form a shiver of horror passed over Andrew. After all that he had promised! His face, heated with his own exertions, chilled suddenly. He hesitated, torn between his desire to attempt to resuscitate the child, and his obligation towards the mother, who was herself in a desperate state. The dilemma was so urgent he did not solve it consciously.

(*Birth*)

i. The expression ‘heated with his own exertions, chilled suddenly’ is the same as 1

- although sweating profusely, he was relaxed
- although exhausted and agitated, he froze
- although he was feeling sore, he looked alright
- he longed to sleep but he remained alert

ii. The terrible dilemma he faced was resolved consciously. State True or False. 1

iii. ‘The still form’ refers to _____. 1

iv. ‘After all, that he had promised!’ – What had he promised? 1

13. Answer ANY TWO (01 from prose and 01 from poetry) of the following four questions given below. [40-50 words each] 6

i. How does the Laburnum ensure security for the nestlings? 3

[*The Laburnum Top*]

ii. What happened after the ‘ominous silence’?

3

(*We’re Not Afraid to Die If We Can All Be Together*)

iii. Why are the last two lines put within brackets?

3

(*The Voice of the Rain*)

3 iv. What changes did King Tut bring out during his reign?

3

(*Discovering Tut: The Saga Continues*)

14. **Answer ANY ONE question out of the two given below. [40-50 3 words]**

i. What did the narrator learn about Mrs. Dorling from her mother?

[*The Address*]

OR

ii. What did the architect tell when he was summoned by the king?

[*The Tale of Melon City*]

15. **Answer ANY ONE question out of the two given below. [120-150 6 words]**

i. What shocks did Gangadharpant Gaitonde get in Bombay in the parallel world?

[*The Adventure*]

OR

ii. The three stanzas depict three different phases. What are they?

[A Photograph]

16. Answer ANY ONE question out of the two given below. [120-150 6 words]

i. The narrator mentioned 'a crazy streak' running in his family. Which two characters showed this streak in their behaviour and words? Write briefly about them showing how they could be called crazy.

[The Summer of the Beautiful White Horse]

OR

ii. Discuss 'The Tale of Melon City' as a humorous as well as ironical poem with the help of examples from the poem.

Name: _____ Sec: _____ Roll No: _____

CODE : A

BURNPUR RIVERSIDE SCHOOL, BURNPUR
ANNUAL EXAMINATION [2024 – 2025]
MATHEMATICS
CLASS : XI

Time : 3 Hours

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 **Very Short Answer (VSA) – type** questions of 2 marks each with sub parts
4. **Section C** has 06 **Short Answer (SA) – type** questions of 3 marks each.
5. **Section D** has 04 **Long Answer (LA-I) – type** questions of 5 marks each.
6. **Section E** has 03 **Source Based / Case Based (CBQ) – type** question of 4 marks.

SECTION-A

1. The elements of the set $E = \{x : x \in Z \text{ and } x^2 = x\}$ are 1
(a) $(-1, 1)$
(b) $(0, 1)$
(c) $(0, 0)$
(d) $(1, 1)$
2. If $(a - 2b, 13) = (7, 2a - 3b)$, then 1
(a) $a=5, b=-4$
(b) $a=5, b=4$
(c) $a=5, b=-1$
(d) $a=5, b=1$

3. If $f(x) = \frac{2x}{(1+x^2)}$, then $f(\tan \theta) =$ 1

(a) $\sin 2\theta$
 (b) $\sin \theta$
 (c) $\cos 2\theta$
 (d) $\cos \theta$

4. The value of i^{-131} is 1

(a) i
 (b) -i
 (c) 2i
 (d) -2i

5. If ${}^n P_5 = 20 \times {}^n P_3$, then n= 1

(a) 5
 (b) 6
 (c) 7
 (d) 8

6. If ${}^n C_8 = {}^n C_6$, then ${}^n C_3 =$ 1

(a) 363
 (b) 364
 (c) 365
 (d) 366

7. If 9th term of an AP is 0, 29th term is _____ the 19th term. 1

(a) 2 times
 (b) 3 times
 (c) 4 times
 (d) 5 times

8. Which term of the GP $\sqrt{3}, 3, 3\sqrt{3}, \dots$ is 729? 1

(a) 10th
 (b) 11th
 (c) 12th
 (d) 13th

9. The angle 225° in radian is 1

(a) $\left(\frac{3\pi}{4}\right)^c$
 (b) $\left(\frac{5\pi}{4}\right)^c$

(c) $\left(\frac{7\pi}{4}\right)^c$
(d) $\left(\frac{9\pi}{4}\right)^c$

10. The value of $\tan(-300^\circ)$ is 1
(a) 0
(b) 1
(c) $-\sqrt{3}$
(d) $\sqrt{3}$

11. If the slope of the line joining the points $A(x, 2)$ and $B(6, -8)$ is $-\frac{5}{4}$, then the value of x is 1
(a) 3
(b) -3
(c) 2
(d) -2

12. The distance between the parallel lines $8x + 15y - 36 = 0$ and $8x + 15y + 32 = 0$ is 1
(a) 4 units
(b) 5 units
(c) 6 units
(d) 7 units

13. The focus of the parabola $3y^2 = 8x$ is 1
(a) $(0, 0)$
(b) $(0, \frac{2}{3})$
(c) $(\frac{2}{3}, 0)$
(d) $(1, 1)$

14. The eccentricity of the ellipse whose latus rectum is one-half of its minor axis is 1
(a) $1/\sqrt{3}$
(b) $2/\sqrt{3}$
(c) $\sqrt{3}/2$
(d) $1/2$

15. In which octant does the point $(-6, 3, -4)$ lie? 1

(a) IV
 (b) V
 (c) VI
 (d) VII

16. The value of $\lim_{x \rightarrow 0} \frac{\sqrt{1+x+x^2}-1}{x}$ is 1

(a) $\frac{1}{2}$
 (b) $\frac{1}{3}$
 (c) $\frac{1}{4}$
 (d) $\frac{1}{5}$

17. If $y = \sqrt{\frac{1-\cos 2x}{1+\cos 2x}}$, then $\frac{dy}{dx} =$ 1

(a) $\cos x$
 (b) $\sec x$
 (c) $\cos^2 x$
 (d) $\sec^2 x$

18. In a single throw of two single dice, the probability of obtaining 'a total of 8' is 1

(a) $1/6$
 (b) $5/6$
 (c) $5/36$
 (d) $1/36$

19. **Assertion (A):** For two sets A and B, $n(A) = 3$, $n(B) = 4$ and $n(A \times B) = 12$. 1

Reason (R): If $n(A) = p$, $n(B) = q$, then $n(A \times B) = pq$.

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.

20. **Assertion (A):** The domain of the function $f(x) = \sqrt{x-3}$ is $[3, \infty)$ 1

Reason (R): $\sqrt{f(x)}$ is defined for all real x, such that $f(x) > 0$.

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

21. Find the domain and the range of the real function, $f(x) = \frac{x^2-25}{x-5}$. 2
 22. The first term of a GP is 27 and its 8th term is $\frac{1}{81}$. Find the sum of its first 10 terms. 2

OR

Find the ratio in which the plane $x - 2y + 3z = 5$ divides the join of A (3, -5, 4) and B (2, 3, -7). Find the coordinates of the point of intersection of the line and the plane.

23. Draw the graph of $y = 3 \cos 2x$. 2
 24. Find the equation of the ellipse which passes through the point (4, 1) and having its foci at $(\pm 3, 0)$. 2

OR

Find the equation of the hyperbola whose foci are $(\pm \sqrt{5}, 0)$ and the eccentricity is $\sqrt{\frac{5}{3}}$.

25. If $y = \frac{\cos x - \sin x}{\cos x + \sin x}$, show that $\frac{dy}{dx} + y^2 + 1 = 0$. 2

SECTION-C

26. Solve: $\frac{1}{2-|x|} \geq 1, x \in \mathbb{R} - \{-2, 2\}$. 3

OR

Solve: $\left| \frac{2}{x-4} \right| > 1, x \neq 4$.

27. Prove that $\sqrt{\frac{1+\sin x}{1-\sin x}} = \tan\left(\frac{\pi}{4} + \frac{x}{2}\right)$. 3

28. If A(4, 3), B(0, 0) and C(2, 3) are the vertices of a ΔABC , find the equation of the bisector of $\angle A$. 3

OR

Find the equation of the line through the intersection of the lines $2x + 3y - 2 = 0$ and $x - 2y + 1 = 0$ and having x-intercept equal to 3.

29. Evaluate: $\lim_{x \rightarrow 0} \frac{\sqrt{2} - \sqrt{1 + \cos x}}{\sin^2 x}$

3

30. Find the derivative of $e^{\sin x}$ from the first principle.

3

31. Calculate the mean deviation about the median for the following data:

3

Height (in cm)	95 – 105	105 - 115	115 - 125	125 - 135	135 - 145	145 - 155
Number of boys	9	13	25	30	13	10

SECTION-D

32. Let z be a complex number such that such that $z \neq 1$ and $|z| = 1$. Then, 5 prove that $\left(\frac{z-1}{z+1}\right)$ is purely imaginary. What will be your conclusion when $z = 1$?

33. How many different words can be formed with the letters of the word 5 ‘CAPTAIN’? In how many of these C and T are never together?

OR

A boy has 3 library tickets and 8 books of his interest in the library. Of these 8, he does not want to borrow Mathematics Part II, unless Mathematics Part I is also borrowed. In how many ways can he choose the 3 books to be borrowed?

34. The second, third and fourth terms in the binomial expansion of 5 $(x + a)^n$ are 240, 720 and 1080 respectively. Find x , a and n .

35. Find the equation of a circle concentric with the circle 5 $2x^2 + 2y^2 - 6x + 8y + 1 = 0$ and of double its area.

OR

Find the equation of the circle which passes through the points A (1, 1) and B (2, 2) and whose radius is 1. Show that there are two such circles.

SECTION-E

36. In a survey of 25 students, it was found that 12 have taken physics, 11 have taken chemistry and 15 have taken mathematics; 4 have taken physics and chemistry; 9 have taken physics and mathematics; 5 have taken chemistry and mathematics while 3 have taken all the three subjects.

Based on the above information, answer the following questions:

- (a) Find the number of students who have taken physics and chemistry but not mathematics. 2
- (b) Find the number of students who have taken physics and mathematics but not chemistry. 1
- (c) Find the number of students who have taken only one of the subjects. 1

OR

Find the number of students who have taken at least one of the three subjects.

37. A manufacturer of TV sets produced 6000 units in the 3rd year and 7000 units in the 7th year. Assume that the production increases uniformly by a fixed number every year.

Based on the above information, answer the following questions:

- (a) Find the production in the first year. 1
- (b) Find the production in the 10th year. 1
- (c) Find the total production in 7 years. 2

OR

Find the total production in 10 years.

38. Competitive examinations are considered an egalitarian way to select worthy applicants without risking influence peddling, bias or other concerns. Self-motivated and hard worker candidates find these examinations very simple.

To clear a prestigious competitive examination to get admission in a world reputed college, a student has 75% chances of passing in at least one subject out of 3 subjects A, B and C, 50% chances of passing in at least 2 subjects and 40% chances of passing in exactly 2 subjects.

Based on the above information, answer the following questions:

- (a) What is the value of $P(A \cap B \cap C)$? 1
- (b) What is the probability that student is not able to clear any of three subjects A, B and C? 2
- (c) What is the value of $P(A \cap B) + P(B \cap C) + P(A \cap C)$? 1

OR

What is the value of $P(A) + P(B) + P(C)$?

BURNPUR RIVERSIDE SCHOOL, BURNPUR
ANNUAL EXAMINATION: [2024-2025]
PHYSICS
CLASS XI

Time: 3 Hours **Maximum Marks: 70**

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 16 questions; twelve MCQ and 4 Assertion Reasoning based of 1mark each. Section B contains 5 questions of 02 marks each. Section C contains 7 questions of 3 marks each. Section D contains 2 case study based questions of 4 marks each and section E contains 3 long answer based questions of 5 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, one question in each CBQ in section D 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.

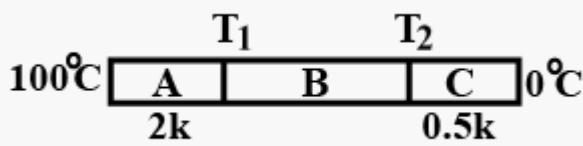
SECTION-A

1. Force F is given by $F = at + bt^2$ where t is time. What are the 1 dimensions of a and b?
 - (a) $[MLT^{-3}]$ and $[MLT^{-4}]$
 - (b) $[MLT^{-1}]$ and $[MLT^0]$
 - (c) $[MLT^{-3}]$ and $[MLT^4]$
 - (d) $[MLT^{-4}]$ and $[MLT^1]$
2. The velocity of a particle at an instant is $10\ ms^{-1}$. After 3s its 1 velocity will become $16\ ms^{-1}$. The velocity at 2s, before the given instant will be

7. A mercury drop of radius 1 cm is broken into 10^6 droplets of equal size. The work done is (Surface Tension of mercury = $35 \times 10^{-2} N m^{-1}$) 1

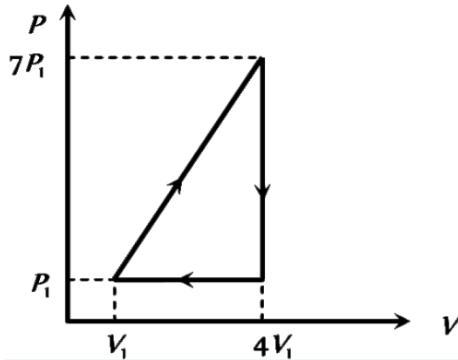
- (a) $4.35 \times 10^{-2} J$
- (b) $4.35 \times 10^{-3} J$
- (c) $4.35 \times 10^{-6} J$
- (d) $4.35 \times 10^{-8} J$

8. Three identical rods A, B and C of equal lengths and equal diameters are joined in series as shown in figure. Their thermal conductivities are $2K$, K and $K/2$ respectively. Calculate the temperature at two junction points. 1



- (a) $85.7^\circ C$ and $57.1^\circ C$
- (b) $80.85^\circ C$ and $50.3^\circ C$
- (c) $77.3^\circ C$ and $48.3^\circ C$
- (d) $75.8^\circ C$ and $49.3^\circ C$

9. In the cyclic process shown in figure, the work done by the gas in one cycle is 1



- (a) $28P_1V_1$
- (b) $14P_1V_1$
- (c) $18P_1V_1$
- (d) $9P_1V_1$

10. How much heat energy in joules must be supplied to 14g of 1 Nitrogen at room temperature to raise its temperature by $40^\circ C$ at constant pressure? (Molecular mass of $N_2 = 28g$, $R=\text{constant}$)

- (a) 50R
- (b) 60R
- (c) 70R
- (d) 80R

11. What is the maximum acceleration of the particle executing the SHM, $y = 2 \sin\left(\frac{\pi t}{2} + \varphi\right)$? (y is in cm) 1

- (a) $\frac{\pi}{2} \text{ cm s}^{-2}$
- (b) $\frac{\pi^2}{2} \text{ cm s}^{-2}$
- (c) $\frac{\pi}{4} \text{ cm s}^{-2}$
- (d) $\frac{\pi^2}{4} \text{ cm s}^{-2}$

12. A wave is expressed by the equation $y = 0.5 \sin \pi(0.01x - 3t)$. 1
Where x, y are in meters and t in seconds. The speed of propagation will be

- (a) 150 ms^{-1}
- (b) 300 ms^{-1}
- (c) 350 ms^{-1}
- (d) 250 ms^{-1}

Question No. 13 to 16 consist of two statements – Assertion (A) and Reason (R). Answer these questions selecting the appropriate option given below:

- (a) **If both A and R are true, and R is the correct explanation of A**
- (b) **If both A and R are true, but R is not the correct explanation of A**
- (c) **If A is true but R is false**
- (d) **If both A and R are false**

13. **Assertion(A) :** If the net external force on the body is zero, then its 1 acceleration is zero.

Reason(R) : Acceleration does not depend on force.

14. **Assertion(A) :** The work done in moving a body over a closed loop 1 is zero for every force in nature.

Reason(R) : Work done does not depend on nature of force.

15. **Assertion(A) :** A body loses weight when it is at the centre of the 1 earth.

Reason(R) : At the centre of earth $g = 0$. Therefore mass, $m = 0$.

16. **Assertion(A) :** When a bottle of cold carbonated drink is opened, a slight fog forms around the opening. 1
Reason(R) : Adiabatic expansion of the gas causes lowering of temperature and condensation of water vapours.

SECTION – B

17. Two forces whose magnitudes are in the ratio of 3:5 give a resultant of 35N. If the angle of inclination be 60° , calculate the magnitude of each force. 2

18. A projectile is fired with a velocity u making an angle θ with the horizontal. Derive expressions for (i) time of maximum height (ii) horizontal range. 2

19. Derive an expression for the terminal velocity of a small spherical body falling through a viscous medium. 2

20. Calculate the heat required to convert 3 kg of ice at $-12^\circ C$ kept into a calorimeter to steam at $100^\circ C$ at atmospheric pressure. 2

Given,

Specific heat capacity of ice = $2100 J \text{ kg}^{-1} \text{ K}^{-1}$

Specific heat capacity of ice = $4186 J \text{ kg}^{-1} \text{ K}^{-1}$

Specific heat capacity of ice = $3.35 \times 10^5 J \text{ kg}^{-1}$

Specific heat capacity of ice = $2.256 \times 10^6 J \text{ kg}^{-1}$

OR

Derive the relation between coefficient of linear expansion (α) and coefficient of superficial expansion (β).

21. A harmonically moving transverse wave on a string has a maximum particle velocity and acceleration of 3 ms^{-1} and 90 ms^{-2} respectively. Velocity of the wave is 20 ms^{-1} . Find the waveform. 2

SECTION – C

22. A planet moves around the sun in nearly circular orbit. Its period of revolution 'T' depends upon: 3

- i. radius r of orbit
- ii. mass M of the sun and
- iii. the gravitational constant G

Show dimensionally that $T^2 \propto r^3$. Taking the proportionality constant as 2π , write the expression for T .

23. Derive the following equation for uniformly accelerated motion by 3 using integration technique.

$$S_{nth} = u + \frac{a}{2}(2n - 1)$$

OR

Derive the following equation of motion for uniformly accelerated motion from velocity-time graph.

$$v^2 - u^2 = 2as$$

24. (a) Define orbital velocity. 3
 (b) Derive an expression for the orbital velocity of a satellite.

25. A structural steel rod has a radius of 10 mm and length of 1m. A 3 100 kN force F stretches it along its length. Calculate (a) the stress (b) elongation and (c) strain on the rod. Given that the Young's modulus, Y of the structural steel is $2 \times 10^{11} N m^{-2}$.

26. Applying first law of thermodynamics obtain an adiabatic relation 3 between pressure and volume.

27. Show that for small oscillations the motion of a simple pendulum is 3 simple harmonic. Derive an expression for its time period.

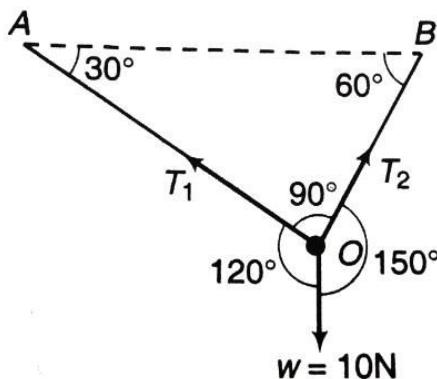
28. (a) Define fundamental note or first harmonic of a string. 3
 (b) A stretched wire emits a fundamental note of 256 Hz. Keeping the stretching force constant and reducing the length of wire by 10 cm, the frequency becomes 320 Hz. Calculate the original length of the wire.

SECTION – D
Case Study Based Questions

Read the following paragraph and answer the questions that follow.

29. Forces acting at the same point on a body are called concurrent forces. When a number of forces act on a body at the same point and the net unbalanced force is zero, the body will continue in its state of rest or of uniform motion along a straight line and is said to be in equilibrium. 4

(i) A ball of mass 1 kg hangs in equilibrium from two strings OA and OB as shown in figure. What is the tension in string OA? Take $g = 10 \text{ ms}^{-2}$.



(a) 5 N (b) $5\sqrt{3}$ N (c) 3 N (d) 15 N

(ii) A block is lying static on the floor. The maximum value of static frictional force on the block is 10 N. If a horizontal force of 8N is applied to the block, what will be the frictional force on the block?

(a) 2 N (b) 18 N (c) 8 N (d) 10 N

(iii) Two masses m_1 and m_2 are attached to a string which passes over a frictionless smooth pulley. When $m_1 = 10 \text{ kg}$ and $m_2 = 6 \text{ kg}$ the acceleration of masses is

(a) 20 ms^{-2} (b) 5 ms^{-2} (c) 2.5 ms^{-2} (d) 10 ms^{-2}

(iv) A block of mass 50 kg just slides over a horizontal distance of 1m. If coefficient of friction between their surface is 0.2, the work done against friction is

(a) 98 J (b) 56 J (c) 72 J (d) 34 J

30. A rigid body of finite size can have both translator and rotatory motions. Just like translator motion, the rotatory motion can be resolved into mutually perpendicular components. Hence a rigid body has six degrees of freedom, three for translator motion and three for rotatory motion. 4

(i) If a gas has n degrees of freedom, ratio of specific heats of gas is

(a) $\frac{1+n}{2}$ (b) $1 + \frac{1}{n}$ (c) $1 + \frac{n}{2}$ (d) $1 + \frac{2}{n}$

(ii) The gases carbon monoxide (CO) and Nitrogen (N_2) at the same temperature have kinetic energies E_1 and E_2 respectively then

(a) $E_1 = E_2$
(b) $E_1 > E_2$
(c) $E_1 < E_2$
(d) E_1 and E_2 cannot be compared

(iii) One mole of ideal monoatomic gas ($\gamma = \frac{5}{3}$) is mixed with one mole of diatomic gas ($\gamma = \frac{7}{5}$). What is γ for the mixture? Here γ denoted the ratio of specific heat at constant pressure to that at constant volume.

(a) 2.5
(b) 3.5
(c) 1.5
(d) 7.59

(iv) The mean kinetic energy of one mole of gas per degree of freedom (on the basis of kinetic theory of gases) is

(a) $\frac{1}{2}k_B T$ (b) $\frac{3}{2}k_B T$ (c) $\frac{3}{2}RT$ (d) $\frac{1}{2}RT$

SECTION – E

31. (a) Mention any two properties of the scalar product of vectors. 5
(b) If unit vectors \hat{a} and \hat{b} are inclined at an angle θ then prove that $|\hat{a} - \hat{b}| = 2 \sin \frac{\theta}{2}$

OR

(a) Mention any two properties of the vector product.
(b) Determine the sine of the angle between the vectors $3\hat{i} + \hat{j} + 2\hat{k}$ and $2\hat{i} - 2\hat{j} + 4\hat{k}$.

32. (a) State Stokes' law. Deduce Stokes' law on the basis of dimensional 5 consideration.
(b) Show that if n equal rain droplets falling through air with equal steady velocity of 10 cm/s coalesce, the resultant drop attains a new terminal velocity of $10n^{\frac{2}{3}} \text{ cm s}^{-1}$.

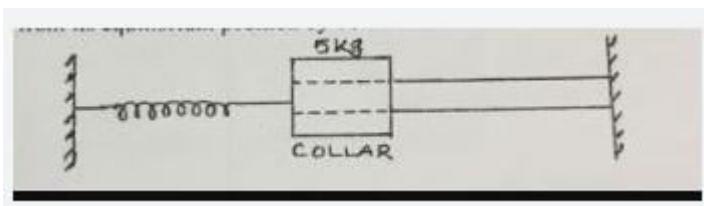
OR

(a) Prove Bernoulli's principle for the flow of non-viscous fluids.
(b) The reading of pressure meter attached with a horizontal closed pipe is $3.5 \times 10^5 \text{ Nm}^{-2}$. On opening the valve of the pipe, the reading of the pressure meter is reduced to $3 \times 10^5 \text{ Nm}^{-2}$. Calculate the speed of the water flowing in the pipe.

33. (a) Derive expression for the kinetic and potential energies of a simple 5 harmonic oscillator. Hence show that the total energy is conserved in SHM.
(b) At a time when the displacement is half the amplitude, what fraction of the total energy is kinetic and what fraction is potential in SHM?

OR

(a) Derive an expression for the time period of the horizontal oscillations of a massless loaded spring.
(b) A 5kg collar is attached to a spring of force constant 500 Nm^{-1} . It slides without friction on a horizontal rod as shown in figure. The collar is displaced from its equilibrium position by 10 cm and released.



Calculate (i) the period of oscillation and (ii) the maximum acceleration of the collar.

BURNPUR RIVERSIDE SCHOOL, BURNPUR
ANNUAL EXAMINATION: [2024-2025]
CHEMISTRY
CLASS XI

Time Allowed: 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. The crystalline salt $\text{Na}_2\text{SO}_4 \cdot x\text{H}_2\text{O}$ on heating loses 55.9% of its weight. The formula of the crystalline salt is: 1

- (a) $\text{Na}_2\text{SO}_4 \cdot 5\text{H}_2\text{O}$
- (b) $\text{Na}_2\text{SO}_4 \cdot 7\text{H}_2\text{O}$
- (c) $\text{Na}_2\text{SO}_4 \cdot 2\text{H}_2\text{O}$
- (d) $\text{Na}_2\text{SO}_4 \cdot 10\text{H}_2\text{O}$

2. If uncertainty in position of an electron is zero, the uncertainty in its momentum would be? 1

- (a) Zero
- (b) $h/4\pi$
- (c) $h/2\pi$
- (d) Infinite

3. Which elements have positive electron gain enthalpy? 1

- (a) Elements of s-block
- (b) Elements of p-block
- (c) Elements of d-block
- (d) Elements of group 18

4. Some meta – directing substituents in aromatic substitution are given. Which one is most deactivating? 1

- (a) -COOH
- (b) -NO₂
- (c) -CN
- (d) -SO₃H

5. If dissociation energies of methane and ethane are 360kcal/mol and 620kcal/mol respectively, the bond energy of C-C in kcal is: 1

- (a) 80
- (b) 260
- (c) 180
- (d) 130

6. The trans-alkenes are formed by the reduction of alkynes with: 1

- (a) H₂-Pd/C, BaSO₄
- (b) NaBH₄
- (c) Na/ liq.NH₃
- (d) Sn-HCl

7. Mixture of potassium chlorate (KClO₃), oxalic acid and H₂SO₄ are heated together. In which element there is maximum change in its oxidation number? 1

- (a) S
- (b) H
- (c) Cl

(d) C

8. Which of the following have same number of significant figures? 1

A. 0.00253
B. 1.0003
C. 15.0
D. 163

Choose the correct answer from the options given below:

(a) A, C and D only
(b) A, B and C only
(c) C and D only
(d) B and C only

9. Ozonolysis of 2-methyl but-2-ene yields: 1

(a) Ketone
(b) Aldehyde
(c) Aldehyde and ketone
(d) None

10. A certain orbital has no angular nodes and two radial nodes. The orbital is: 1

(a) 2s
(b) 3s
(c) 3p
(d) 2p

11. Which has lowest ionization enthalpy? 1

(a) Ca^{2+}
(b) K^+
(c) Cl^-
(d) S^{2-}

12. Geometry of IF_7 molecule is: 1

(a) Octahedral
(b) Trigonal bipyramidal
(c) Pentagonal bipyramidal
(d) Square planar

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:** If the boiling points of two liquids differ by 10-20K or so, they can be separated by fractional distillation method. 1
Reason: The vapours of such liquids are formed within the same temperature range are condensed simultaneously.

14. **Assertion:** It is easy to form $\text{Cl}^-(\text{g})$ from $\text{Cl}(\text{g})$ rather than $\text{F}^-(\text{g})$ from $\text{F}(\text{g})$. 1
Reason: Cl atom has more electrons than F(g).

15. **Assertion:** Conjugated acid of CO_3^{2-} is HCO_3^- . 1
Reason: CO_3^{2-} is a weak base.

16. **Assertion:** But-1-yne and But-2-yne may be distinguished with ammoniacal silver nitrate. 1
Reason: Only one alkyne reacts with it.

SECTION – B

17. What is the order of C-H bond energy in C_2H_2 , C_2H_4 and C_2H_6 and why? 2

OR

Which of the following molecule is expected to be stabilized by anion formation and why?

C_2 , O_2 , NO and F_2

18. (a) Name the mobile phase and stationary phase in 2
 i) Paper chromatography
 ii) TLC

(b) What intermediates are formed when fission of C-C bond occurs
 i) Homolytic
 ii) Heterolytic?

19. Fluorine reacts with ice and results in the change: 2
 $\text{H}_2\text{O}(\text{s}) + \text{F}_2(\text{g}) \rightarrow \text{HF}(\text{g}) + \text{HOF}(\text{g})$
 Justify that the reaction is a redox reaction.

20. 56L of nitrogen gas is mixed with excess of hydrogen gas and it is found that 20L of ammonia gas is produced. Calculate the volume of unused nitrogen gas. 2

21. Comment on the thermodynamic stability of NO(g) when- 2
 $\frac{1}{2}\text{N}_2(\text{g}) + \frac{1}{2}\text{O}_2(\text{g}) \rightarrow \text{NO(g)}$, $\Delta_f\text{H}^0 = 90\text{KJmol}^{-1}$
 $\text{NO(g)} + \frac{1}{2}\text{O}_2(\text{g}) \rightarrow \text{NO}_2(\text{g})$, $\Delta_f\text{H}^0 = -74\text{KJmol}^{-1}$

SECTION-C

22. (a) Given the standard electrode potentials: 3
 $\text{K}^+/\text{K} = -2.93\text{V}$, $\text{Ag}^+/\text{Ag} = 0.80\text{V}$, $\text{Hg}^{2+}/\text{Hg} = 0.79\text{V}$, $\text{Mg}^{2+}/\text{Mg} = -2.37\text{V}$, $\text{Cr}^{3+}/\text{Cr} = -0.74\text{V}$
Arrange these metals in their increasing order of reducing power.
(b) The compound AgF_2 is unstable compound. However, if formed, the compound act as a very strong oxidizing agent. Why?

23. (a) Give the quantum numbers for the 6the electron in the d sub-shell 3
of iron.
(b) Which physical quantity has dimension as that of Planck constant?

24. 3.15 grams of an acid are dissolved in water and volume of 3
solution is made 500ml by adding water. 20ml of this solution
require 20ml of (N/10) NaOH solution. If the acid is dibasic, then
calculate the molar mass of the acid.

OR

The density of 3M solution of NaCl is 1.25g/ml. Calculate the
molality of solution.

25. (a) Write bond -line formula for Isopropyl alcohol. 3
(b) Which of the two: $\text{O}_2\text{NCH}_2\text{CH}_2\text{O}^-$ or $\text{CH}_3\text{CH}_2\text{O}^-$ is expected to be
more stable and why?

26. (a) Why does the pH of blood remain constant in spite of eating 3
spices?
(b) In the qualitative analysis of group III cations, NH_4Cl is added
before NH_4OH . Why?

27. (a) What do l and L describe in atomic structure? 3
(b) What is the ratio of wavelengths associated with N_2 and CO
moving with the same velocity?

28. (a) What is the oxidation number and valency of S in S_8 ? 3

(b) Explain the term electrode potential(E) and standard electrode potential(E^0).

SECTION – D

The following questions are Source based/Case based questions. Read the given passage and answer the questions based on the passage and related studied concepts.

—

29. About 118 elements are known which have been placed in 18 groups and 7 periods. The properties such as atomic radius, ionization enthalpy, electron gain enthalpy etc. depend upon the electronic configuration of the element. 4

(a) What are representative or main block elements?
(b) Write the order of second ionization enthalpy of N, O and F.
(c) 3rd period has 8 elements and not 18, why?
OR
(c) $\Delta_i H_1$ of Mg is higher than that of Al, why?

30. The internal energy of a system may be changed either by allowing 4 the exchange of heat with the surroundings or by doing work on the system or by the system. If reaction is carried out at constant volume pressure-volume work done is zero.

(a) At what temperature the entropy of a perfectly crystalline solid is zero?
(b) What is the criterion for spontaneity in terms of total entropy change?
(c) For the reaction $A + B \rightleftharpoons C + D$, calculate the value of ΔG^0 at 300K. The equilibrium constant is 1×10^2 .
OR
(c) What is the formula to calculate W_{rev} and W_{irrev} ?

31.

SECTION – E

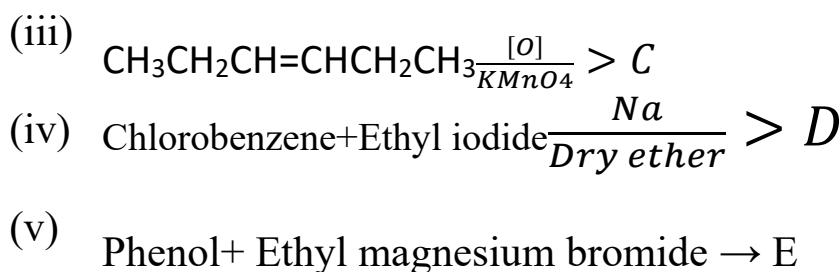
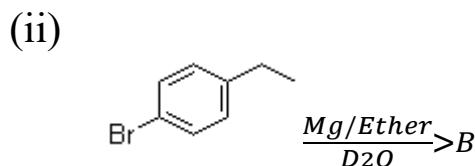
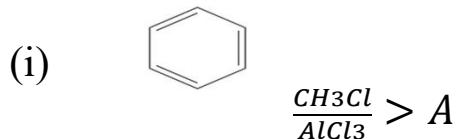
5

- (a) Why does KHF_2 exist but KCl_2 not?
- (b) The order of solubility of aluminium halides in water decreases in the order, $\text{AlF}_3 > \text{AlCl}_3 > \text{AlBr}_3 > \text{AlI}_3$, why?
- (c) CuCl is more covalent than NaCl , why?

OR

- (a) State two important features of linear combination of atomic orbitals (LCAO).
- (b) Write the energy level diagram of F_2 and explain its magnetic property.
- (c) Lithium chloride is soluble in organic solvents such as alcohol but sodium chloride is not, why?

32. Identify A, B, C, D and E in the following conversions: 5

**OR**

- (a) An alkyl halide X, of formula $\text{C}_6\text{H}_{13}\text{Cl}$ on treatment with potassium tertiary butoxide gives two isomeric alkenes Y and Z(C_6H_{12}). Both alkenes on hydrogenation give 2,3- dimethyl butane. Predict the structures of X, Y and Z.

(b) How will you convert ethanoic acid to ethene.

33. (a) What is the molar concentration (active mass) of water? 5

(b) Under what conditions, buffer with highest buffer capacity is obtained?

(c) What type of salt hydrolysis takes place in FeCl_3 solution?

(d) Which concept explains the following acid-base reaction?
 $\text{CaO} + \text{CO}_2 \rightarrow \text{CaCO}_3$

(e) When does an electrolyte precipitate out?

OR

(a) 2 moles of PCl_5 are heated in a closed vessel in a 3-liter vessel at constant temperature. At equilibrium, 50% PCl_5 dissociates. Calculate the value of K_c for the reaction,
 $\text{PCl}_5(g) \rightleftharpoons \text{PCl}_3(g) + \text{Cl}_2(g)$

(b) $\text{N}_2(g) + 3\text{H}_2(g) \rightleftharpoons 2\text{NH}_3(g)$, $\Delta H = -92.4 \text{ KJ/mol}$. What two simultaneous changes can keep the equilibrium undisturbed?

BURNPUR RIVERSIDE SCHOOL, BURNPUR
ANNUAL EXAMINATION [2024-2025]
BIOLOGY[044]
CLASS : XI

Time: 3 Hours

Maximum Marks : 70

General instructions:

- (v) 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.	<i>Paramoecium</i> is an example of-	1
	a. Dinoflagellate	
	b. Sporozoan	
	c. Flagellated protozoan	
	d. Ciliated protozoan	
2.	An example of colonial algae is-	1
	a. <i>Volvox</i>	
	b. <i>Ulothrix</i>	
	c. <i>Spirogyra</i>	
	d. <i>Chlamydomonas</i>	
3.	Which of the following is pseudocoelomate?	1
	a. Porifera	
	b. Platyhelminthes	
	c. Aschelminthes	
	d. Arthropoda	

4. Identify the cell organelle that was first described by Robert Brown in 1831. 1

- Nucleus
- Golgi apparatus
- Ribosome
- Lysosomes

5. Polymer of fructose is- 1

- Starch
- Inulin
- Cellulose
- Glycogen

6. What would be the number of chromosomes in a daughter cell produced from a meiocyte with 16 chromosomes? 1

- 16
- 2
- 4
- 8

7. The RQ for proteins is- 1

- 0.7
- 0.8
- 0.9
- 1

8. Which phytohormone is sprayed on sugarcane to increase its stem length? 1

- Auxins
- Cytokinins
- ABA
- Gibberellins

9. TLC of the lungs is equivalent to- 1

- VC+RV
- ERV+TV+IRV
- TV+IRV
- TV+ERV

10. Which of the following is ureotelic? 1

- Bony fish
- Insects
- Amphibians
- Reptiles

11. The contractile protein of skeletal muscle involving ATP-ase activity is - 1

- Myosin
- Troponin
- Actinin
- Tropomysin

12. Chemicals which are released at the synaptic junction are called - 1

- Neuro- transmitters
- Hormones
- Cerebrospinal fluid
- lymph

Question No. 13 to 16 consist of two statements – Assertion (A) and Reason (R). Answer these questions selecting the appropriate option given below:

- Both A and R are true and R is the correct explanation of A.
- Both A and R are true and R is not the correct explanation of A.
- A is true but R is false.
- A is False but R is true.

13. Assertion: Conjoint closed arrangement of vascular bundles is observed in monocot stems. 1
Reason: Radial arrangement of vascular bundles is observed in roots.

14. Assertion: 18 ATP and 12 NADPH molecules are required to make one molecule of glucose. 1
Reason: Calvin cycle occurs in the mesophyll cells in plants with Kranz anatomy.

15. Assertion: Systemic blood circulation is in between the heart and lungs. 1
Reason: The mitral valve guards the opening between the left atrium and the left ventricle.

16. Assertion: Hormone Calcitonin is antagonistic to the effect of parathyroid hormone. 1
Reason: Calcitonin decreases blood calcium level while parathyroid hormone increases the blood calcium level.

SECTION B

17. Define species. Who is the father of modern taxonomy? 2
18. How are zygomorphic flowers different from actinomorphic flowers? 2

OR

Discuss the different types of leaf morphology in flowering plants.

19. What is the function of ureters in frog? 2
20. Name the phytohormone-
a. Derivatives of carotenoids
b. Gaseous in nature.

OR

Write a short note on auxins.

21. Present the balance sheet for anaerobic respiration. 2

OR

Represent the preparatory phase in glycolysis with the help of a flowchart.

SECTION C

22. Differentiate between the kingdoms Monera and Fungi based on cell type, cell wall and body organisation. 3
23. Name the following:
a. A species of bryophyte that provides peat.
b. Special structures formed on liverworts that allow asexual reproduction in them.
c. The form in which food is stored in Rhodophyceae.

24. Write a short note on plastids. 3

25. Discuss the types of chromosomes based on the position of centromere. 3
26. Point out the key events observed in a cell at mitotic telophase. 3
27. With the help of a diagrammatic presentation of standard ECG, describe the significance of P,Q,R,S and T. 3
28. Describe the six major classes of enzymes. 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. The kingdom Animalia is the largest of all the five kingdoms. It is 4 further classified into eleven phyla. Animals have been grouped into all these based on many characteristics, some of which are level of organisation, symmetry, coelom, segmentation and many more.

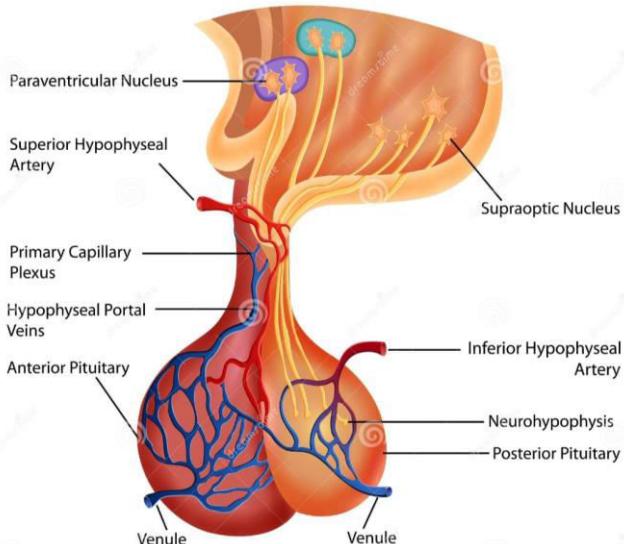
- Which phylum has a distinctive bioluminescence property?
- State two differences between chordates and non-chordates.
- Name the jawless class in vertebrate.

OR

- Which super class in vertebrate has a two chambered heart?

30. 4

PITUITARY GLAND



- Which part of the pituitary gland produces LH and FSH?
- Name the two hormones produced by Pars nervosa.
- Name the only hormone produced by pars intermedia.

OR

- Why is vasopressin also called anti-diuretic hormone?

SECTION E

31. Discuss the five kinds of placentations in the ovary of angiosperms. 5
OR
What is aestivation? Discuss its major types.

32. Differentiate between C3 and C4 plants. 5
OR
Describe Z-Scheme.

33. With the help of a well labelled longitudinal section, explain the structure of kidney. 5
OR
a. Explain the role of PCT, Henle's loop and DCT in urine formation.
b. What are renal calculi and glomerulonephritis.

NAME _____ **SEC** _____ **ROLLNO** _____
CODE-A

PURV INTERNATIONAL SCHOOL, DURGAPUR
ANNUAL EXAMINATION: [2024-2025]
COMPUTER SCIENCE
CLASS-XI

TIME: 3 Hrs.

Maximum Marks: 70

General Instructions:

General Instructions:

- This question paper contains 37 questions.
- All questions are compulsory. However, internal choices have been provided in some questions. Attempt only one of the choices in such questions
- The paper is divided into 5 Sections- A, B, C, D and E.
- Section A consists of 21 questions (1 to 21). Each question carries 1 Mark.
- Section B consists of 7 questions (22 to 28). Each question carries 2 Marks.
- Section C consists of 3 questions (29 to 31). Each question carries 3 Marks.
- Section D consists of 4 questions (32 to 35). Each question carries 4 Marks.
- Section E consists of 2 questions (36 to 37). Each question carries 5 Marks.
- 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

1. State True and False: [1]
A computer system consists of both hardware and software.

2. Which of the following is valid arithmetic operator in Python ? [1]
a) // b)? c) < d) and

3. Which of the following is not a legal integer type value in Python? [1]
a) Decimal b)Octal c)Hexadecimal d) Roman

4. Convert $(76)_{10} = (?)_8$ [1]
a)114 b) 411 c)1234 d) none

5. _____ errors occur during the execution of a program. [1]
a)Runtime b)Logical c)Compile Time d) None

6. To print the value of a variable, Python uses: [1]
a) Print statement b) Print() function
c) print statement d) print () function

7. Which of the following is not a valid loop in python ? [1]
a)for b)while c)do-while d)if-else

8. What will be the output of the following Python code? [1]

```
tp = (5,)  
tp1= tp * 2  
print(len(tp1))
```


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

9. Python code can run a variety of a platform, it means [1]
Python is a _____ language.
a)graphical b)cross-platform
c)independent d)all of these

10. What is the extension name of python file? [1]
a).docx b).txt c).py d)None of these

11. Negative index -1 belongs to _____ of string. [1]
a)first character b)last character
c) second last character d)second character

12. Which of the functions will return the string in all caps ? [1]
a)upper () b)toupper() c)isupper() d)to-upper()

13. Given a list L=[10,20,30,40,50,60,70], what would [1]
L[-3:99] return ?
a)[20,30,40] b)[30,40,50] c)[40,50,60] d)[50,60,70]

14. Dictionaries are _____ data types of Python ? [1]
a)mutable b)immutable c)simple d)all of these

15. Dictionaries are also called _____ [1]
a)mappings b)hashes c)associative arrays d)all of these

16. Which of the following is not a social networking site? [1]
a) Twitter b)Facebook c)Instagram d)Gmail

17. What is the value of the expression 100//25 ? [1]
a) 4 b)4.0 c) 2.5 d) None of these

18. What will be the output produced by following code statements? [1]
17 % 5
a) 2 b) 3.0 c) True d) False

19. Function range(10,5,-2) will yield an iterable sequence [1] like :
a) [10,8,6] b)[9,7,5] c) [6,8,10] d)[5,7,9]

In the following questions (20 and 21), a statement of assertion (A) is followed by a statement of reason (R) . 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:** The for loop is a counting loop that works with [1] sequence of values.
Reason : The range () function generates a sequence of list type.

21. **Assertion :** A tuple slice is a tuple in itself. [1]
Reason : All extracted slices are lists.

SECTION B

22. Convert Decimal to Hexadecimal : [2]
(789) to (?)

23. Convert (B2F)₁₆ to octal [2]

24. What are DeMorgan's theorems ? [2]

25. What is Online fraud ? [2]

26. What will be the **output** of the following code? [2]

```
s="hello123"  
dsum=0  
for a in s:
```

```
if a.isdigit():
    dsum+=int(a)
print("Sum of string's digit is",dsum)
```

27. Rewrite the following code in python after removing all [2]
syntax error(s). Underline each correction done in the
code.

```
30=To
for K in range(0,To)
IF k%4==0:
print (K*4)
Else:
print (K+3)
```

28. What do you understand by plagiarism? [2]

SECTION C

29. What will be the **output** of the following code? [3]

```
tuple1 = (111, 222, 333, 444, 555 ,666)
list1 =list(tuple1)
new_list = []
for i in list1:
    if i%2==0:
        new_list.append(i)
new_tuple = tuple(new_list)
print(new_tuple)
```

30. What is the difference between partition () and split() [3]
functions ?

31. What will be **output** of the following code? [3]

```
mylist=[10,20,30,40,50,60,70,80,90,100]
for i in range (0,len(mylist)):
    if i%2==0:
        print(mylist[i])
```

SECTION D

32. Write a program to illustrate the difference between break [4] and continue

33. Write a program to accept three integers and print the [4] largest of the three. Make use of only if statement.

34. What will be the **output** of the following code segment : [4]

a) myList=[1,2,3,4,5,6,7,8,9,10]
del myList [3:]
print (myList)

b) myList=[1,2,3,4,5,6,7,8,9,10]
del myList [:5]
print (myList)

35. Write a program to read roll numbers and marks of four [4] students and create a dictionary from it having roll numbers as key.

SECTION E

36. Write a program to implement a simple calculator for two [5] input numbers. Offer choices through a menu.

37. Write a Program that reads a line and prints its statistics [5] like:
Number of Uppercase letters:
Number of lowercase letters:
Number of alphabets :
Number of digits :
Number of symbols :

Name : _____ Sec: _____ Roll No: _____
CODE : A

BURNPUR RIVERSIDE SCHOOL, BURNPUR
ANNUAL EXAMINATION [2024-25]
PHYSICAL EDUCATION
CLASS – XI

Time: 3 Hours **Max Marks: 70**

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 five.
- 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. There is internal choice available.
- 6) Sections E consist of question 34-37 carrying 5 marks each and are short answer types and should not exceed 200-300 words. Attempt any 3.

SECTION - A

Q.1	Skill components of fitness do not include _____	1
	(i) Agility (ii) Speed (iii) Reaction time (iv) Strength	
Q.2	Healthy lifestyle is promoted by _____	1
	(i) Good Diet (ii) Adequate rest (iii) Regular exercise (iv) All of these	
Q.3	Adaptive Physical Education aims to _____	1
	(i) Promote Physical Fitness (ii) Enhance Social Adjustment (iii) Develop motor skills (iv) All of these	
Q.4	Inclusive education aims to _____	1
	(i) Increase Self- Esteem (ii) Create better social skills (iii) Enhance academic performance (iv) All of these	
Q.5	Assertion (A): The Olympic flag and symbol have five different coloured rings on a white background, which is symbolic.	1

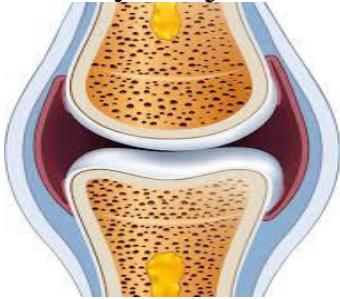
Reason (R): The five rings represent the five participating continents of the time: Africa, Asia, America, Europe and Australia, united by Olympism. The six colours are those that currently appear on all the national flags of the world.

- (i) A is incorrect but R is correct.
- (ii) Both A and R are incorrect.
- (iii) Both A and R are correct.
- (iv) A is correct but R is incorrect.

Q.6	The first president of the Indian Olympic Association was	1
	(i) Ratan Tata (ii) Neville Tata (iii) Dorabji Tata (iv) Jamshedji Tata	
Q.7	Career options in Physical Education do not include:-	1
	(i) Sports Commentator (ii) Nutritionist (iii) Physiotherapist (iv) Cricketer	
Q.8	Khelo India programme does not include	1
	(i) Badminton (ii) Hockey (iii) Cricket (iv) Gymnastics	
Q.9	Purification of esophagus and stomach is by _____	1
	(i) Kapalbhati (ii) Dhouti (iii) Jal Neti (iv) Vasti	
Q.10	Pranayama or breath control includes _____	1
	(i) Vilom (ii) Anulom Vilom (iii) Ujjayi (iv) All of these	
Q.11	BMI stands for _____	1
	(i) Body Monitoring Index (ii) Bulk Mass Index (iii) Body Mass Index (iv) Body Measurement Index	
Q.12	_____ have a strong build with big joints and muscles.	1
	(i) Mesomorph (ii) Endomorph (iii) Ectomorph (iv) None of these	
Q.13	Match the following:	1
	LIST –I	LIST –II
	1. Skull, Trunk, Upper limbs and lower limbs	(A) Circulatory System
	2. Voluntary, Involuntary and Cardiac	(B) Respiratory System
	3. Pharynx, Larynx, Trachea, Bronchi	(C) Muscle
	4. Pulmonary Circulation, Systematic Circulation	(D) Skeleton System

- (a) 1-D, 2-C, 3-B, 4-A
- (b) 1-A, 2-B, 3-C, 4-D
- (c) 1-B, 2-A, 3-D, 4-C
- (d) 1-C, 2-D, 3-A, 4-B

Q.14 Identify the joint and bone given below and write their name 1



- (i) Hinge Joints (ii) Pivot Joints
- (iii) Synovial Joints (iv) Gliding Joints

Q.15. Psychology studies do not include how we 1
 (i) Think (ii) Feel (iii) Behave (iv) Sleep

Q.16. Substances that remove fluids from body are called 1
 (i) Anabolic Steroids (ii) Diuretics (iii) Stimulants (iv)
 Analgesics

Q.17. Warming up causes _____ 1
 (i) Decreased heart rate (ii) Increased body temperature
 (iii) Slowing of Pulse rate in sleep (iv) None

Q.18. Extension is _____ 1
 (i) Bending (ii) Turning (iii) Twisting (iv) Straightening

SECTION – B (Attempt any five)

Q.19. Vilas, a male person whose weighs is 90 kg and his height is 1.7 2
 m. Calculate his BMI. Also state the category in which he falls.

Q.20. Write a note on the rules of Ancient Olympic games. 2

Q.21. What is blood doping? 2

Q.22. Define Kinesiology and Biomechanics. 2

Q.23. Write down the name of longest and shortest bone in the body. 2

Q.24. Write down the importance of traditional games? 2

SECTION -C (Attempt any five)

Q.25. Differentiate between Modern and Ancient Olympic Games. 3

Q.26. Discuss the role of physical education teacher for children with special needs. 3

Q.27. Define Yogic Kriyas. 3

Q.28. Write down three qualities of the good leaders? 3

Q.29. What do you mean by physiology? 3

Q.30. Explain the difference between abduction and adduction. 3

SECTION -D

Q.31. Modern yoga instructor at the yoga class showed that asanas are the third limb of yoga. Emphasising that these focused on posture and were vital to enhancing concentration leading to discipline, they showed how asanas are classified in to different groups based on their application or postures. 4

(i) How would you classify asanas based application?
(ii) How are asanas classified based on positions?
(iii) What asanas offer complete relaxation to the mind and body?
(iv) What is asanas.

Q.32. Initially there were no trained professionals to work with CWSN. 4
Gradually awareness increased and today we have a lot of opportunities for professionals specially trained to work with such children. At the school you met the career counseling and guidance teacher. She explained that a lot of career opportunities now exist in this field. Encouraged by her advice. I decided to explore these opportunities.

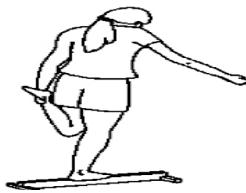
(i) What career opportunities exist for a physical education teacher in the field of working with CWSN?
(ii) How would it be different if I were to work as occupational therapist?
(iii) What role do I have in working with children with speech defects?
(iv) How the students learn about the etiquette for a person with vision loss?

Q.33. Identify the pictures and write their names.

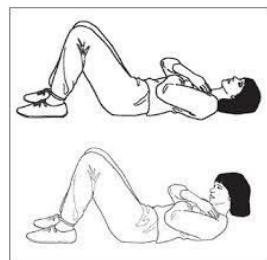
4



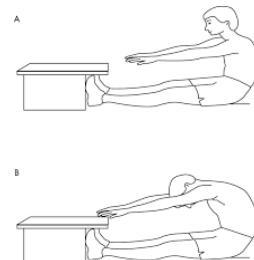
A



B



C



D

SECTION – E (Attempt any three)

Q.34. Write a short note on Fit India Programme.

5

Q.35. Define somato types and elaborate its types.

5

Q.36. Explain the types of planes.

5

Q.37. Define warming up and explain the types of warming up.

5

Name _____ Sec _____ Roll No. _____

BURNPUR RIVERSIDE SCHOOL, BURNPUR

ANNUAL EXAMINATION [2024-2025]

INFORMATION TECHNOLOGY (802)

CLASS: XI

CODE : A

Time: 3 Hrs.

Maximum Marks: 60

General Instructions:

1. Please read the instructions carefully.
2. This Question Paper consists of **24 questions** in two sections –Section A & Section B.
3. Section A has Objective type questions whereas Section B contains Subjective type questions.
4. **Out of the given (6+18=) 24questions, a candidate has to answer (6+11=) 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. **SECTIONA-OBJECTIVETYPEQUESTIONS(30MARKS):**
 - 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. **SECTIONB-SUBJECTIVETYPEQUESTIONS(30MARKS):**
 - i. This section contains 18 questions.
 - ii. A candidate has to do 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 any 4 out of the given 6 questions on Employability Skills** **1x4=4**

- i. The process of working together in a group gives the feeling of _____. 1
- ii. M in SMART goal stands for _____. 1
- iii. Undo, Cut, Copy and Paste are _____ commands. 1
- iv. Oral communication is a type of _____ communication 1
- v. _____ are qualities and principles which make a person think and act in a certain noble way. 1
- vi. The Forest Conservation Act came into force on _____. 1

2. **Answer any 5 out of the given 7 questions** **1x5 = 5**

- i. _____ are functions that are defined inside a class that describes the behaviors of an object. 1
- ii. DOS is a type of _____. 1
- iii. _____ command is used to insert records in a relation.
 - a. SELECT
 - b. INSERT
 - c. UPDATE
 - d. CREATE1
- iv. What's wrong with the following JAVA statement?
 ctr=9;
 if((ctr<5) && (ctr>30))
 a. The logical operator & cannot be used in a test condition. 1
 b. The test condition is always true.
 c. The test condition is always false.
 d. None of these
- v. What is a word processor? 1
- vi. _____ governs the transmission of information on the World Wide Web. 1
- vii. Sheba is entering mark in a table but she is not able to leave the Name field in table as blank. What could be the probable reason(s)? 1

Answer any 6 out of the given 7 questions

1x6 = 6

i. What is the use of E-mail? 1

ii. _____ keyword is used to declare a constant variable. 1

iii. The computer understands only _____ and _____. 1

iv. What is the use of application layer in TCP/IP? 1

v. What is Operating System? 1

vi. Shortcut key to move cursor to the first cell in the sheet in Calc is _____.
a. Ctrl+Home 1
b. Home
c. Ctrl+*
d. Ctrl+Up

vii. Classes, Interfaces, and arrays are _____ data types 1

Answer any 5 out of the given 6 questions

1x5 = 5

i. What is the primary function of the Domain Name System (DNS) on the internet?
a. To transfer files between computers
b. To convert domain names into IP addresses 1
c. To establish secure connections for online transactions
d. To monitor network traffic and provide encryption

ii. What is cardinality? 1

iii. Define Macro in Calc. 1

iv. JAVA is a case-insensitive language.(True/False) 1

v. _____ and _____ are types of RAM. 1

vi. What is animation feature of Impress? 1

Answer any 5 out of the given 6 questions

1x5 = 5

i. Trojan horse is not a virus.(True/False) 1

ii. In MySQL _____ keyword is used to assign meaningful column names to the results of queries. 1

iii. Why do we need presentation software? 1

iv. &&, ||, and ! are _____ operators 1

v. Hira wants to store values in a table but the command below is giving error. Write correct MYSQL command for creating table.
CREATE STUDENT ('RollNo', 'Class', 'Name'); 1

vi.	CPU is also called as _____ a. Microprocessor b. Processor c. Both (a) and (b) d. None of these	1
6.	<u>Answer any 5 out of the given 6 questions</u>	<u>1x5 = 5</u>
i.	Which of the following is not a networking device? a. Hub b. USB c. Switch d. Both (a) and (c)	1
ii.	_____ MySQL command is used to modify data in a table.	1
iii.	Why do we use slide show view in impress?	1
iv.	What will be the output of $a=5/3$, if 'a' is an integer type variable?	1
v.	ALTER TABLE is a type of _____ command. a. DDL b. DCL c. DML d. TCL	1
vi.	What is bandwidth?	1

SECTION-B
SUBJECTIVE TYPE QUESTIONS
Answer any 3 out of the given 5 questions on
Employability Skills

7.	What is the difference between interest and abilities?	2
8.	List two advantages and disadvantages each of non-verbal communication.	2
9.	What is the role of agriculture in protecting our environment?	2
10.	What are header and footer?	2
11.	If you could do a business, what would be your idea?	2

12.	<u>Answer any 3 out of the given 5 questions</u>	<u>2x3 = 6</u>
	What is the difference between getters and setters in JAVA?	2

13. Rohit writes the following command for a table Employee that has empno, name, sal as fields.

SELECT name empmo from employee;

2

SELECT name, empno from employee
where empno = 1001;

Explain the difference between the above two commands.

14. Name the tab in which the following commands are present:

2

- i. Header and Footer
- ii. Copy

15. What are four basic operations of a computer?

2

16. What is the difference between TELNET and FTP?

2

Answer any 2 out of the given 3 questions

$3 \times 2 = 6$

17. Find the output of following code fragment

3

```
int age = 16;  
if (age >= 18) {  
    System.out.println("Adult");  
} else {  
    System.out.println("Minor");  
}
```

18. What are various constraints that are used in MySQL?
(Any three)

3

19. Explain briefly different type of computer network.

3

Answer any 3 out of the given 5 questions

$4 \times 3 = 12$

20. Write a program in JAVA to create a basic calculator using
Switch statement.

4

21

Write the SQL statement for the table “Players” given below:

No.	Name.	Trining_fee	Gender	Gender_name	Date of join
1012	Anandeep	30000	M	Cricket	2012-01-02
1102	Anisha	25000	F	Badminton	2009-03-24
1103	Isha	31000	F	Golf	2011-11-04
1049	Arun	40000	M	Basket Ball	2009-05-06
1025	Amber	30000	M	Volley Ball	Null
1106	Inkita	40000	F	Golf	2010-11-12
1017	Nikita	35000	F	Badminton	2012-12-04
1108	Arleen	30000	F	Cricket	2009-02-10
1101	Sameer	25000	M	golf	2011-03-23

Display the game name in the descending order of game name.

Change the monthly fees of Sameer to 50000(permanently).

Delete player details who will pay monthly fee of 35000.

Delete those records where game name starts with “G” and gender is “M”.

22.

Define any four components of chart in Calc. 4

23.

Expand the following:

- SDRAM
- ALU
- DOS
- OCR

24.

What is the difference between broadcast and point-to-point topology? 4

4

BURNPUR RIVERSIDE SCHOOL, BURNPUR

ANNUAL EXAMINATION: [2024-2025]

ACCOUNTANCY

CLASS: XI

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

General Instruction:

- (i) This question paper contains **34** questions. **All** questions are **compulsory**.
- (iii) Questions number **1** to **20** are multiple choice questions. Each question carries **1** mark.
- (iv) Questions number **21** to **26** are short answer type questions. Each question carries **3** marks.
- (v) Questions number **27** and **29** (Part A) are long answer type-I questions. Each question carries **4** marks.
- (vi) Questions number **30** to **34** are long answer type-II questions. Each question carries **6** marks.
- (vii) There is no overall choice. However, an internal choice has been provided in few questions in each of the parts.

1.	Main objective of preparing journal is:	1
	(a) To ascertain the financial position	
	(b) To journalise the cash transactions	
	(c) To make posting in the ledger	
	(d) To record the business transactions first of all	
2.	Depreciation is the process of appointment of the cost of the assets over its useful life. True/False	1
3.	After closing the account, one sided error is rectified through:	1
	(a) Drawing A/c	(b) Capital A/c
	(c) Suspense A/c	(d) Profit & Loss A/c

OR

Which of the following is one-sided error? 1

- (a) Subsidiary book undercast
- (b) Omission of posting to an account
- (c) Posting to the wrong side of an account
- (d) All of the above

4. Which of the following statement is not appropriate in relation to provision: 1

- (a) Provision is a charge against profit
- (b) Provision is created for known liabilities
- (c) Provision is created for strengthening the financial of the business.
- (d) Creation of provision satisfies the principle of conservatism.

OR

Reserve created by undervaluation of closing stock is called: 1

- (a) Secret Reserve (b) General Reserve
- (c) Specific Reserve (d) Capital Reserve

5. Generally, accounts under single entry system are maintained by: 1

- (a) Sole Trader (b) Company
- (c) Society (d) Government

6. The advantages of accounting are: 1

- (a) Information regarding P/L
- (b) Information regarding Financial Statement
- (c) Helpful in prevention of error
- (d) All of these

OR

The characteristics of accounting are: 1

- (a) recording (b) classifying
- (c) summarising (d) All of these

7.	Creation of reserve:	1
	(a) Increase the profits	
	(b) Decrease the profits	
	(c) Decrease the divisible profits	
	(d) Increase the divisible profits	
	OR	
	Creation of reserve is:	1
	(a) Illegal	(b) Necessary
	(c) Not necessary	(d) Useless
	Read the following and answer the question no 8 & 9	
	Opening stock ₹5,000; Sales ₹16,000; Carriage Inward ₹1,000	
	Sales Return ₹1,000; G/P ₹6,000; Purchases ₹10,000;	
	Purchase return ₹900.	
8.	Closing stock will be:	1
	(a) ₹8,000	(b) ₹6,100
	(c) ₹7,000	(d) ₹6,000
9.	COGS will be:	1
	(a) ₹9,000	(b) ₹8,000
	(c) ₹10,000	(d) ₹7,000
10.	Assertion (A): Assets are always recorded in the books of accounts at the price paid to acquire them	1
	Reason (R): As per money measurement concept assets have to be recorded at cost price only.	
	(a) Both A & R are true and R is the correct explanation of A	
	(b) Both A & R are true but R is not the correct explanation A	
	(c) A is true but R is false	
	(d) A is false but R is true	
11.	Drawings will lead to:	1
	(a) Decrease the assets & decrease the liabilities	
	(b) Increase the assets & increase the liabilities	
	(c) Increase the assets & decrease the liabilities	
	(d) Decrease the assets & increase the liabilities	
12.	Single entry system of book-keeping is:	1
	(a) Inaccurate	(b) Unsystematic
	(c) Unscientific	(d) All of these

13. Trial Balance contain the following information: 1
 15% bank loan ₹40,000
 Interest paid ₹4,500
 Interest debited to P/L A/c will be:
 (a) ₹6,000 (b) ₹3,000
 (c) ₹4,500 (d) ₹1,500

14. Due to which of the following contingent liability is shown in the Balance Sheet: 1
 (a) Dual Aspect Concept
 (b) Convention of full disclosure
 (c) Convention of materiality
 (d) Going concern concept

15. Which of the following equation/s is/are correct? 1
 (i) Asset = Capital + Liability (ii) Capital = Asset - Liability
 (iii) Liability = Asset + Capital (iv) Capital = Asset + Liability
 (a) i, iv (b) ii, iii, iv
 (c) i, ii, iii (d) All of these

OR

The position of a businessman on 31.3.2023 was as follows: 1
 Cash ₹5,000; Debtors ₹20,000; Machinery ₹60,000; Stock ₹25,000; Capital ₹75,000. Liabilities will be:
 (a) ₹20,000 (b) ₹30,000
 (c) ₹35,000 (d) ₹40,000

16. Following information is given in Trial Balance: 1
 Bad debt ₹3,000; Provision for bad-debts ₹3,500; Debtors ₹40,000.
 Additional information: It is desired to make a provision for doubtful debts @10% on debtors. The amount debited to P/L A/c for provision is:
 (a) ₹4,000 (b) ₹5,000
 (c) ₹6,500 (d) ₹3,500

17. Net profit of a firm before charging manager's commission is ₹21,000. If the manager is entitled to 5% commission after charging such commission, than manager's commission will be: 1

18. When closing capital is less than opening capital, it denotes: 1
(a) Profit
(b) Loss
(c) Loss, if there is no drawings
(d) None of the above

19. If closing stock is appearing in trial balance than it will be 1 appearing in:
(a) Trading A/c (b) Balance Sheet
(c) P/L A/c (d) Both a & b

20. What will be the effect of following transaction in Accounting 1 Equation?
Sold goods to Suresh costing ₹8,000 for ₹10,000 in cash.
(a) +stock +cash (b) +cash-stock + capital
(c) -stock + cash (d) -stock + capital

21. How do you think Accounting is useful for management of 3 business.

OR

22. Explain the term Assets. 3

Following balances appeared in the books of Radhika traders 3
as on 1st April, 2023.

Assets: Cash ₹8,000; Cash at bank ₹7,000; Stock ₹30,000;
Debtors ₹36,000(Mohan ₹10,000; Sohan ₹12,000; Dinesh
₹14,000); Furniture ₹5,000; Building ₹25,000.

Liabilities: Creditors X ₹5,000; Y ₹6,000

In April, 2023 following transactions took place:

Date	Particulars
------	-------------

Date	Particulars
5.4.2023	Purchase goods from Suresh of the list price of ₹8,000 at 20% trade discount and received a cheque from him.
10.4.2023	Deposited above cheque into bank.

Pass journal entries for above transactions.

OR

Fill in the missing information in the following journal entries: 3

Date	Particulars	L.F.	₹(Dr.)	₹(Cr.)
	Abbas & Sons.....Dr. To ----- (Goods costing 50,000 sold above 15%, less 10% trade discount)		?	?
	-----.Dr. To ----- (Cash received from Gaurav)		46,000	46,000

23. Following transactions were recorded in the books of Darshan 3
traders; you are required to prepare Sales Day Book.

Date	Particulars
2023 March 2.	Sold to Chandra Light House: - 50 Tube lights @ ₹60 each less: 20% 20 Heaters @ ₹120 each less 25%
5.	Purchased from Charat Ram Electric Co: - 25 Table Fans @ ₹600 each 20 Ceiling Fans @ ₹800 each
10.	Chaudhry & Sons purchased from us: - 80 dozen Bulbs @ ₹90 per Dozen
16.	Sold to Sri Ram & Sons: - 10 electric irons @ ₹180 each less 10%

24. A book-keeper extracted the following Trial Balance as at 31st 3 March 2023:

Particulars	₹(Dr.)	₹(Cr.)
Stock on 1.4.2022	2,50,000	
Purchases	6,50,000	
Sales		10,00,000
Motor Van	3,80,000	
Debtors	1,50,000	
Creditors		94,000
Premises		3,00,000
Shop fittings		20,000
Interest on Bank overdraft		16,000
Purchase return	10,000	
Sales return		20,000
Lighting& heating	18,000	
Capital		5,00,000
Discount received	2,000	
Repairs	2,500	
Electricity	6,500	
Bank overdraft	2,00,000	
Stock at 31.3.2023	3,30,000	
Rent from subletting		15,000
Bills Receivable		8,000
Suspense A/c		13,000
	19,99,000	19,99,000

You are required to redraft the Trial Balance correctly.

25. Tulsi started business on 1st April. 2022 with a capital of 3 ₹4,50,000. On 31st March, 2023 her position was as under:

Particulars	₹
Cash	99,000
B/R	75,000
Stock	48,000
Land & Building	1,80,000
Furniture	50,000

She owed ₹45,000 to her friend Parvati on that date. She withdrew ₹8,000 per month for household purposes.

Ascertain her profit & loss and closing capital for the year ended 31.3.2023.

26. Fill up the missing information in the following rectifying 3 entries:

Date	Particulars	L.F.	₹(Dr.)	₹(Cr.)
	-----A/c.....Dr. To -----A/c (Total of returns outwards book ₹6,800 omitted to be posted in the ledger)		?	?
	-----A/c.....Dr. -----A/c.....Dr. To -----A/c (Purchases for ₹30,000 wrongly entered in the sales book through correctly entered)		?	?
	-----A/c.....Dr. -----A/c.....Dr. To -----A/c (Sale of furniture for ₹54,000 wrongly credited to sales account as ₹45,000)		?	?

OR

Pass journal entries to rectify the following errors in the books of Manish:

3

(i) Payment of ₹1,000 to Ramesh and ₹1,200 to Suresh was made but Ramesh was debited with ₹1,200 and Suresh with ₹1,000.

(ii) A sum of ₹375 owed by Ajay has been included in the list of sundry creditors.

(iii) Credit sales to Mohan ₹14,000 were posted to the credit of his account.

27. Prepare the purchase book of M/s Shiv Stationaries from the following: 4

Date	Particulars
2020 June	
2.	Purchased from Gagan Stationery Mart on credit: (i) 70 dozen pencils @ ₹25 per dozen (ii) 10 dozen registers @ ₹15 per register
10.	Purchased from Amrit Furniture: 2 Tables @ ₹1,500 per table
15.	Purchased 3 dozen ink pots @ ₹80 per dozen from Mehar Paper Co.
18.	Purchased from Rehman Bros. on credit: (i) 5 reams of white paper @ ₹50 per team (ii) 120 pens @ ₹60 per dozen Less trade discount of 10%

28. On 31.3.2023 pass book showed a balance of ₹25,000. Prepare 4 a Bank Reconciliation Statement from the following particulars:

(i) Cheques of ₹20,000 deposited in the bank on 27th March, out of which cheques of ₹5,000 were cleared on 1.4.2023. Rest are not cleared.

(ii) On 28.3.2023, cheques were issued amounting to ₹15,000, out of which cheques of ₹3,000 presented in March, ₹4,000 on 2nd April and rest were not cleared.

(iii) Cheques of ₹10,000 deposited in the bank on 28th March, 2023, out of which cheques of ₹4,000 were cleared on 2nd April and rest are dishonored.

- (iv) Interest on investment collected by bank does not appear in the cash book ₹800
- (v) A B/R of ₹9,000 previously discounted from the bank was Dishonored on 30th March.2023 but no intimation was received from bank till 31st March.
- (vi) Bank has debited ₹1,500 and credited ₹1,200 in our account.

29. Enter the following transactions in the cash book with cash and 4 Bank columns:

Date 2019 June	Particulars
1.	Balance of Cash in hand ₹12,000; Overdraft at Bank ₹1,500 Deposited into Bank ₹10,000
3.	Sold goods for cash ₹28,000 and paid half the proceeds into Bank. Purchased goods for ₹7,000 from Manoj & Co. on credit.
5.	Received from Suresh ₹500
8.	Received ₹2,800 from Govind. Paid ₹1,000 into Bank.
10.	Received a cheque for ₹7,600 from Subhas in full settlement of ₹8,000 due from him.
12.	Drew from bank for petty cash ₹100

30. (i) Describe the relevance of accounting concepts/principles in accounting. 6
(ii) Name and state the concept/assumption related to the following statements:
(a)The cost of stationery is accounted as an expense and not shown as an asset in financial statements.
(b)Provision for discount on creditors is not created.
(c)The owner of the business shows his capital as a liability and not shown as an asset.

OR

6

Explain the following concepts:

- (i) Going Concern Concept
- (ii) Consistency Concept

31. On 1st April, 2022, following balances appeared in the books of M/s Krishna Traders: 6

Furniture A/c ₹50,000

Provision for Depreciation on Furniture A/c ₹22,000

On 1st October, 2022 a part of Furniture purchased for ₹20,000 on 1st April, 2018 was sold for ₹5,000. On the same date a new furniture costing ₹25,000 was purchased. The depreciation was provided @10% p.a. on WDV Method.

Prepare Furniture A/c and Provision for Depreciation A/c for the year ending 31st March, 2023.

OR

6

On 1st July, 2017, X Ltd. purchased a machinery for ₹15,00,000. Depreciation is provided @20% p.a. on the original cost of machinery and books are closed on 31st March every year. On 31st May, 2019, a part of this machine purchased on 1st July 2017 for ₹3,60,000 was sold for ₹2,40,000 and on the same date new machinery was purchased for ₹4,20,000.

You are required to prepare Machinery Account, Provision for Depreciation Account and Machinery Disposal Account.

32. From the following Trial Balance, extracted from the books of Raga Ltd, Prepare a Trading and Profit and Loss Account for the for the year ended 31st March, 2023 and a Balance Sheet as at that date: 6

Particulars	₹(Dr.)	₹(Cr.)
Drawings A/c	20,000	
Land & Building	12,000	
Plant and Machinery	40,000	
Carriage Inward	100	
Wages	500	
Salary	2,000	
Sales Return	200	
Bank charges	200	
Coal, gas and water	1,200	
Purchases	1,50,000	
Trade Expenses	3,800	
Stock (Opening)	76,800	
Cash at Bank	50,000	
Rates and Taxes	870	
B/R	24,500	
Sundry Debtors	54,300	
Cash in hand	30,000	
Sales	2,20,000	
Capital		1,01,110
Discount		1,260
Commission		5,230
B/P		1,28,870
Purchase Return		10,000
	4,66,470	4,66,470

The additional informations are as under:

- (i) Closing Stock was valued at the end of the year at 20,000
- (ii) Depreciation on Plant and Machinery charged at 5% and on Land & Building at 10%
- (iii) Make a provision for discount on debtors at 3%
- (iv) Make a provision at 5% on debtors for Bad-Debts

(v) Salary outstanding was 100 and wages prepaid were 40

(vi) The manager is entitled to a Commission of 5% on Net Profit after such Commission.

33. Enter the following transactions in petty cash book in analytical form. The book is kept on imprest system, amount of imprest being ₹5,000. 6

Date 2023 April	Particulars
1.	Petty cash in hand ₹420. Received cash to make-up the imprest. Brought stamps for ₹300.
5.	Paid for office cleaning ₹200 and repairs to furniture ₹250.
7.	Paid bus fare ₹440, railway fare ₹330, wages ₹200.
8.	Paid for charity ₹350.
9.	Bought shorthand note book for office ₹250, carriage on parcels ₹280.
10.	Bought envelopes ₹450, served refreshments to customer ₹150.
12.	Paid for conveyance ₹300, wages ₹200, stapler pins ₹280.
15.	Gave tips to office peon ₹250.

34. From the following Trial Balance of Sh. Damodar, prepare Trading and Profit & Loss Account for the year ending 31st March, 2020 and a Balance Sheet as at that date: 6

Particulars	₹(Dr.)	₹(Cr.)
Stock (1.4.2019)	10,000	
Purchases	58,000	
Wages	4,720	
Return Inward	3,520	
Carriage on purchase	2,360	
Discount received		750
Return Outward		2,600
Sales		98,650
B/P		3,000
Creditors		5,600
Creditors for rent		500
Capital		40,000
Loan from X		10,000
Commission		1,200
Carriage on sale	710	
Office salaries	4,800	
Rent & Taxes	2,400	
Cash	1,100	
Bank Balance	7,820	
Bad-debts	600	
Discount Allowed	640	
Land & Building	20,000	
Scooter	6,600	
Scooter repair	850	
B/R	3,500	
Commission	1,800	
Debtors	25,400	
Interest on X's loan	1,500	
Drawings	6,000	
	1,62,300	1,62,300

The stock on 31.3.2020 was ₹22,000.

Name: _____ Sec: _____ Roll No.: _____

CODE : A

BURNPUR RIVERSIDE SCHOOL, BURNPUR

ANNUAL EXAMINATION: [2024-2025]

BUSINESS STUDIES

CLASS: XI

Time: 3 Hours

Maximum Marks: 80

General Instruction:

Read the following instructions very carefully and strictly follow them:

- (i) This question paper contains **34** questions. **All** questions are **compulsory**.
- (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. It is possible to maintain 100% secrecy and confidentiality in this business. Identify this type of business from the following: 1
(a) Sole Proprietorship (b) Partnership
(c) Joint Stock Company (d) Joint Hindu Family Business

2. Which of the following is not an example of itinerant retailer: 1
(a) Hawker (b) Cheap Jack
(c) Specialty Shop (d) Market Traders

3. Which of the broad categories of industries covers oil refinery and sugar mills? 1
(a) Primary (b) Secondary
(c) Tertiary (d) Both b & c

4. Which of the following is not related with trade mark? 1
(a) It differentiates goods of one company from another company.
(b) It helps in knowing reputation, goodwill of the company.
(c) It helps in differentiate in similar product in market.
(d) It is offered when an original idea is expressed by author.

5. Assertion (A): Departmental Undertakings are able to take benefits of business opportunities. 1
 Reason (R): Departmental Undertakings do not undertake risky ventures due to bureaucrat's over-cautious and conservative approach.

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

6. Match the statement given under A with the correct options given under B 1

A	B
(i) Wholesale Trade	(a) Buying of goods in small quantities and selling them to ultimate consumers.
(ii) Retail Trade	(b) Buying and selling of goods within the boundaries of a nation
(iii) Internal Trade	(c) Buying and selling of goods in large quantities for resale

(a) i-a ii-b iii-c (b) i-c ii-a iii-b
 (c) i-c ii-b iii-a (d) i-b ii-c iii-a

7. Which of the following statement/s is/are true about wholesalers: 1
 (a) The wholesaler buys goods in bigger lots.
 (b) The wholesaler usually specialise in one particular line of goods
 (c) Wholesalers undertake additional activities like grading of production, storage, promotion of goods etc.
 (d) All of the above.

8. _____ capital is used for buying current assets. 1
 (a) Trade credit (b) Debenture
 (c) Equity Share (d) Preference Share

9. _____ management plays a crucial role in guiding the entire organisation towards ethical behavior. 1

10. (a) Top (b) Middle
 (c) Lower (d) None of the above
 Performance and credit rating scheme is implemented by: 1
 (a) DIC
 (b) NSIC
 (c) NABARD
 (d) SIDBI

11. Which of the following is not a contract of indemnity? 1
 (a) Fire Insurance (b) Life Insurance
 (c) Marine Insurance (d) Both a & c

12. Patent is provided for _____ 1
 (a) Invention (b) Discovery
 (c) Handicrafts (d) Either a & b

13. School uniform shop is an example of 1
 (a) General store (b) Street Stall Holders
 (c) Specialty Shop (d) None of these

14. Assertion(A): The volume of B2B transactions is much higher than the volume of B2C transactions 1
 Reason(R): To facilitate a single B2C transactions, there are number of B2B transactions.
 (a) Both A & R are true and R is the correct explanation of A
 (b) Both A & R are true but R is not the correct explanation A
 (c) A is true but R is false
 (d) A is false but R is true

15. Match the statement given under A with the correct options given under B 1

A	B
(i) Joint venture	(a) Two or more firms join together for a common purpose and mutual benefit.
(ii) Statutory Corporation	(b) LIC is the example of it.
(iii) Departmental Undertaking	(c) It is completely owned, managed and controlled by a government ministry.

	(a) i-c ii-a iii-b (c) i-c ii-b iii-a	(b) i-a ii-b iii-c (d) i-b ii-a iii-c	
16.	Out of the following which one is not a feature of Owners' funds?	(a) Risk Bearer Capital (c) Permanent Capital	1 (b) Periodic Interest Payment (d) No security needed.
17.	_____ deal in similar line of standardised and branded consumer products and have identical merchandise strategies, with identical products and displays.	(a) Chain store (c) Both a and b	1 (b) Departmental Store (d) Peddlers
18.	Which of the following statement is incorrect?	(a) Ethical behavior is above the behavior required by law (b) Top management plays a crucial role in guiding the entire organisation towards ethical behavior (c) Employees should not be involved in the process of developing ethical programs (d) Ethics are essential for every business and for the progress of any society	1
19.	_____ is financed by Govt. through allocation of funds in the Annual General Budget of parliament.	(a) Government Company (c) Departmental Undertaking	1 (b) Statutory Corporation (d) Joint Venture
20.	The providers of _____ funds have a control over the management of business.	(a) Owners' (c) Fixed capital	1 (b) Borrowed (d) Working capital
21.	“This fund remains with the company and it has no liability to return this fund.”	Identify the concept stated above. State the features of it.	3
		OR	
	“It includes all funds available by way of loans or credit.”		3
22.	Identify the concept stated above. State the features of it. Explain the necessity for entrepreneurship for the country.		3
		OR	
			3

	Explain the role of small business in socio, economic development of India.	
23.	Identify the documents highlighted in following statements:	3
	(a) This certificate specified the origin of goods exported.	
	(b) This document is issued by the commanding officer of the ship to the exporter after the cargo is loaded on the ship	
	(c) On the basis of this document, customs office grant permission for the export.	
24.	The management of Mars Ltd. Manipulated its financial statements to show lesser earnings so that low rate of dividend can be given.	3
	(a) Identify the group whose interest is being ignored.	
	(b) State the responsibilities of business organisation towards the group identified above.	
25.	Explain the following:	4
	(a) Public Deposits	
	(b) Debentures	
	OR	
	Explain the following:	4
	(a) Commercial Bank	
	(b) Trade credit	
26.	Govind is a manufacturer of readymade garments. He sells his product through various dealers across the country. However, his sales are decreasing over the years. Recently his son purchased a t-shirt online, this gave Govind an idea to start selling his products online.	4
	Explain benefits of e- Business.	
27.	Distinguish between Equity shares and Preference shares.	4
28.	Explain the following:	4
	(a) NEFT	
	(b) Digital Cash	
	OR	
	Explain the following:	4
	(a) Indemnity	
	(b) Principle of contribution	
29.	In the first year of operation, the revenue generated by Smart Enterprise from sale of its products are just sufficient to cover the cost of production.	4
	(a) Identify and state the objective is met in the given case	

(b) State two more objectives of same category identified in (a).
 30. Distinguish between Public Company and Private Company. 4

31. Harshul owes a large-scale retail outlet at a central location in Kanpur. The outlet is divided into a number of sections for fruits and vegetables, groceries, electronic and clothing.
 (a) Identify the type of retail outlet being highlighted in the given case
 (b) State 3 advantages and 2 limitations of the type of retail outlet as identified in part (a) of the question.

32. Rajeev, Brijesh, Mukesh and Guruprasad mutually decided to start a partnership business of manufacturing kids' garments. They also decided that Mukesh's association will not be revealed to the general public. Brijesh will take active part in carrying out business of the firm, while Rajeev will not take part in day-to-day operations and Guruprasad's name will be used as a partner of the business.
 Identify and state the type of partner stated above.
 OR
 Prabhat and Rajan are manufacturing leather belts and wallets. Both share profits and losses in the ratio of 3:2. Prabhat has invested a capital of 10 lakhs, while Ranjan has invested 7 lakhs in the business.
 Identify the form of business organisation in which both have promoted their business. Also explain merit of this form of business organisation.

33. State benefits of International business. 6
 OR
 Distinguish between Domestic & International business.

34. Explain the benefits of Joint Ventures. 6

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

CODE-A

**BURNPUR RIVERSIDE SCHOOL, BURNPUR
ANNUAL EXAMINATION : [2024-2025]
ECONOMICS(030)
CLASS : XI**

General Instructions :

1) This question paper contains two sections:

Section A- Statistics for Economics

Section B- Introductory Microeconomics

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-STATISTICS FOR ECONOMICS

1. Read the following statements-Assertion(A) and Reason(R). Choose one of the correct alternatives given below:- 1

Assertion(A)-Homogeneity of data is important for comparing data.

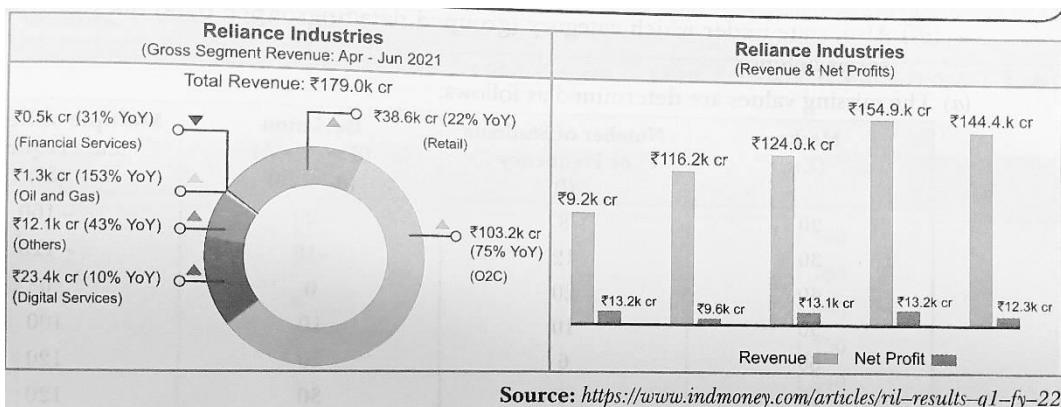
Reason(R)- Data of diverse qualities and kinds cannot be compared.

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.

2.

1



On the basis of the above snapshot from an article answer the following question.

The average net profit of Reliance industries from April 2020 to June 2021 is ₹ _____ crore.

Identify the error in the above graph.

- a. 12.28k
- b. 127.14k
- c. 128.14k
- d. 147k

3. Tabulation of data is the process of presenting data in form of _____. 1

- a. Bar diagrams
- b. Polygon
- c. Pie diagrams
- d. None of these

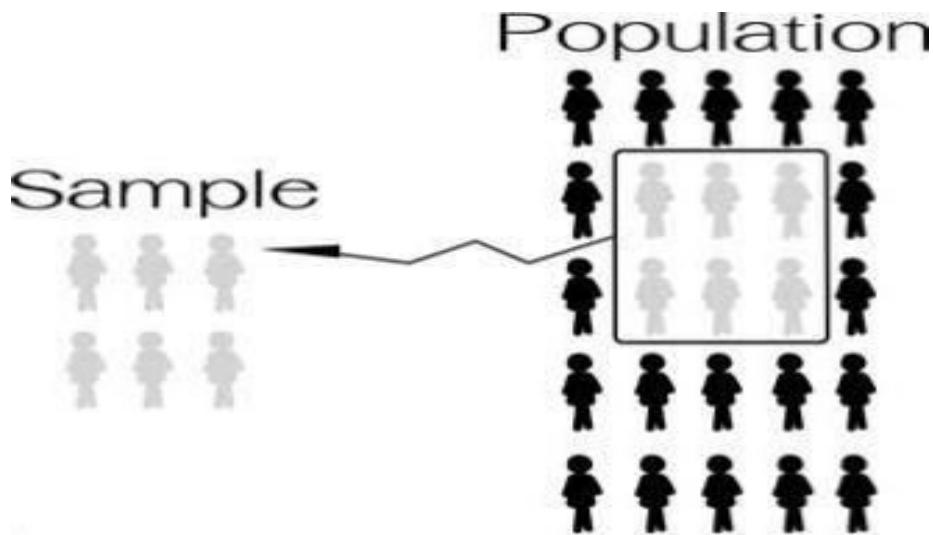
4. Which of the following statements is true about the wholesaler price index? 1

- a. It is also known as price of living index numbers.
- b. It helps in finding out the rate of inflation.
- c. It is unable to forecast demand and supply situation in the economy.
- d. It can help to estimate only the monetary value of national income.

5. On the basis of the below image answer the following question: 1

Which type of sampling technique is shown in the image below?

- a. Stratified sampling
- b. Purposive sampling
- c. Deliberate sampling
- d. Convenience sampling



6. If there is perfect agreement between marks in English and economics then the value of rank correlation coefficient will be _____ 1
 a. +1
 b. -1
 c. 0
 d. None of these

7. Read the following statements carefully. 1
Statement 1: While calculating median, the series must be arranged in ascending order only.
Statement 2: While calculating Q1 and Q3, the series maybe arranged either in ascending order or in descending order.
 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

8. _____ method of investigation is suitable only when the respondents are educated. 1
 (Choose the correct option to fill up the blank).
 Codes:
 a. Direct personal investigation
 b. Indirect oral investigation
 c. Telephone interviews
 d. Mailing questionnaire

9. Read the following statements carefully.

1

Statement 1: Mode is undefined in case of open ended frequency distribution.

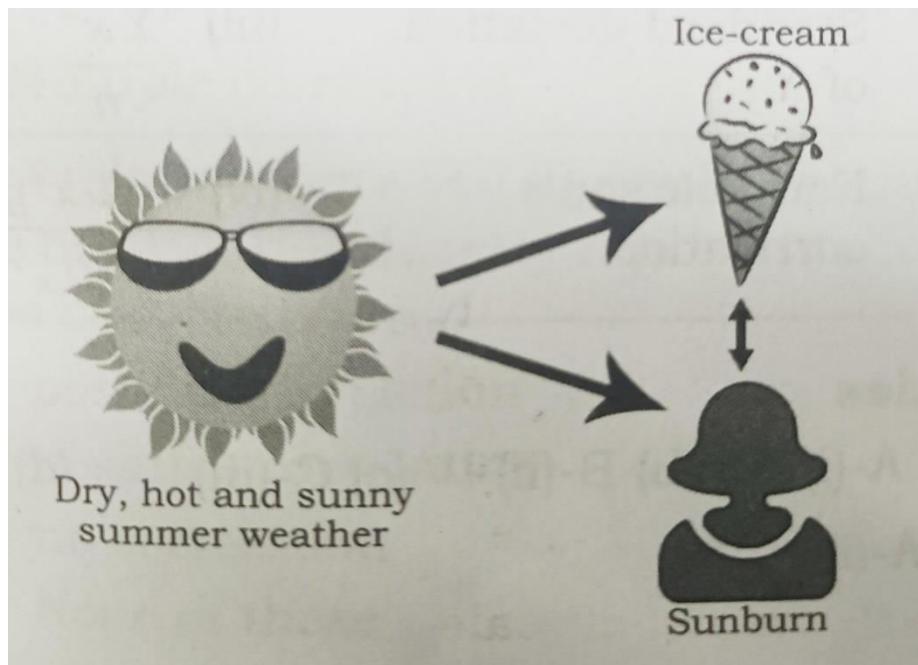
Statement 2: Median is equal to quartile second and decile 5th.

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

10.

1



The arrow between the ice cream cone and sunburn indicates which of the following?

- a. Causation
- b. Correlation
- c. Both (a) and (b)
- d. Neither (a) nor (b)

11. A. **“Secondary data is ready for reference, while primary data has to be collected and processed”.**

3

Keeping in view the above statement, differentiate between primary data and secondary data.

OR

B. With the help of suitable example, explain conversion of an inclusive distribution into exclusive distribution.

3

12. Read the following statements carefully. Write true or false with a reason. 3

- a. Arithmetic Mean may lead to misleading conclusions.
- b. Arithmetic Mean cannot be easily used for comparison.

13. I. Draw a histogram and frequency polygon with histogram for the following distribution: 3

Age(Years)	No.of Guests
10-20	90
20-30	40
30-40	60
40-50	20
50-60	120
60-70	30

II. How does the procedure of drawing a histogram differ when class intervals are unequal in comparison to equal class intervals in a frequency table? 1

14. A. Calculate median wage from the following data: 4

Wages(₹)(less than)	5	10	15	20	25	30	35	40	45
No. of workers	29	224	465	582	634	644	650	653	655

OR

B.I. Find the missing information in the following table: 2

	A.	B.	C.	Combined
Number(N)	20	10	--	34
Mean	10	--	3	5

B.II. Calculate mode from the following data (Use inspection method): 2

Marks(more than)	0	2	4	6	8
No. of students	50	45	30	20	10

15. Calculate median using 'less than ogive' and 'more than ogive' using the data given below :-

4

Marks:	5-15	15-25	25-35	35-45	45-55	55-65
No. of students	4	6	10	5	3	2

16. A. If the points in a scatter diagram tend to cluster in a straight line which makes an angle of 30° with the x-axis, what would you say about the strength of association between x and y?

3+3

B. Is the change in any price is not reflected in a price index number?

17A.I. From the data given below, calculate Karl Pearson's Coefficient of Correlation between density of population and death rate by step deviation method.

3

Region	Area (in sq. km)	Population	Death
A	200	40000	480
B	150	75000	1200
C	120	72000	1080
D	80	20000	280

II. Find the consumer price index or cost of living index number for the current year from the following data by (i) Aggregative expenditure method (ii) Family budget method.

3

Base Period.

Current Period

Commodity	Price(p0)	Quantity(q0)	Price(P1)	Quantity(Q1)
A	2	10	4	5
B	5	12	6	10
C	4	20	5	15
D	2	15	3	10

OR

B.I. Calculate the rank coefficient of correlation from the following data:-

3

X	25	45	35	40	15	19	35	42
Y	55	60	30	35	40	42	36	48

II. Calculate the price index using the following data. Use the following methods to calculate the price index :-

3

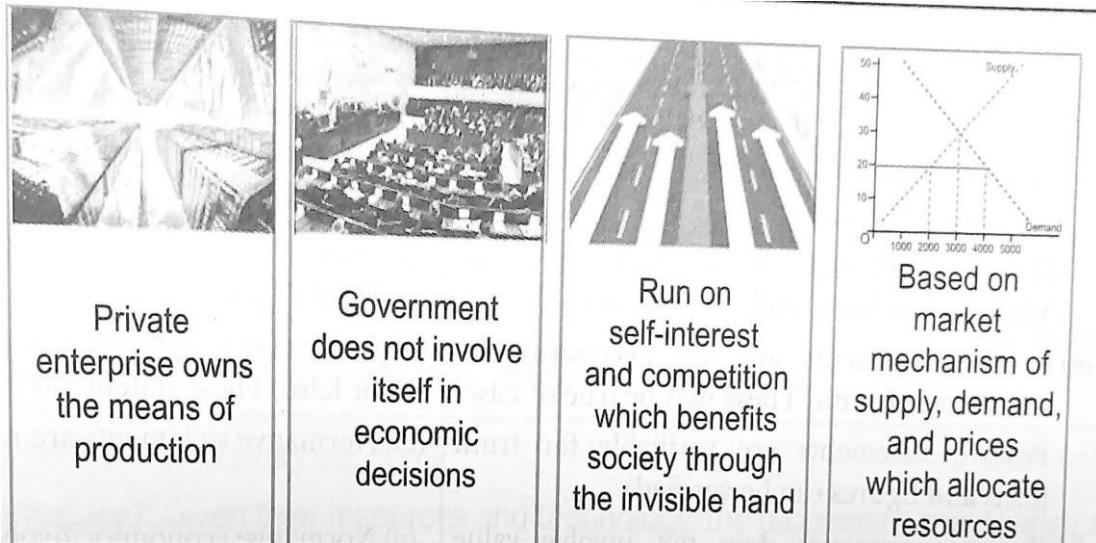
- Laspeyre's method
- Paasche's method
- Fisher's method

Base Year(2018).		Current Year(2020)		
Commodity	Price(₹)	Quantity(units)	Price(₹)	Quantity(units)
A	2	100	3	100
B	8	200	10	50
C	10	300	15	100
D	6	400	10	50

SECTION B- INTRODUCTORY MICROECONOMICS

18. Taking clue from the image below suggest which of the following economies represent the features mentioned below.

1



- Capitalist economy
- Socialist economy
- Mixed economy
- None of these

19. Read the following statements carefully. 1

Statement 1: A consumer strikes his equilibrium by equating price of the commodity with marginal utility (in terms of rupees) derived from the commodity.

Statement 2: A situation when $P_x/P_y > M_U_x/M_U_y$ is better than when $P_x/P_y = M_U_x/M_U_y$.

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

20. Read the following statements-Assertion(A) and Reason(R). Choose one of the correct alternatives given below:- 1

Assertion(A)-Average Revenue slopes downwards in case prices constant.

Reason(R)- Falling price line is an indication towards the fact that a firm must lower its price in order to sell more.

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.

21. In case supply is _____, an increase in demand will lead to a rise in equilibrium quantity, but no change in equilibrium price. 1

- a. Perfectly elastic
- b. Perfectly inelastic
- c. Elastic
- d. Inelastic

22. Change in quantity demanded of a good due to change in real income of the consumer caused by change in own price of the good is called _____. 1

Alternatives:

- a. Cross price elasticity
- b. Price effect
- c. Income effect
- d. Substitution effect

23. Choose the correct pair. 1

Column I	Column II
A. Producer's equilibrium	i. Maximum profit
B. Price constant with output	ii. Price equals marginal revenue
C. Stable equilibrium	iii. marginal cost is greater than marginal revenue before equality of marginal revenue and marginal cost
D. Post equality of marginal revenue and marginal cost	iv. Price increases

Codes:-

- a. A-(i)
- b. B-(ii)
- c. C-(iii)
- d. D-(iv)

24. Which of the following is not an essential condition of pure competition? 1

- a. Large number of buyers and sellers
- b. Homogeneous product
- c. Freedom of entry and exit
- d. Absence of transport cost

25. Which of the following equations shows budget line? 1

Alternatives

- a. $P_1 + P_2 = Y$
- b. $P_1 X_1 + P_2 X_2 = Y$
- c. $P_1 + P_2 \leq Y$
- d. $P_1 X_1 + P_2 X_2 \leq Y$

26. The extensive use of machinery, division of labour, increased specialization and larger plant size etc, entail lower cost per unit of output but the following cost per unit is up to a certain limit. As the firm goes beyond the optimum size, the efficiency of the firm begins to decline. The above statement indicates towards which stage of returns to factor? 1

Alternatives

- a. Increasing returns to factors
- b. Diminishing returns to factors
- c. Constant returns to factors
- d. Negative returns to factors

27. Coefficient of elasticity is zero when demand is ____ . 1

- a. Perfectly elastic.
- b. Perfectly inelastic.
- c. Infinite.
- d. None of these.

28. A. What type of changes take place in total product and marginal product when they are 3

- i. Increasing returns to a factor?
- ii. Diminishing returns to a factor?

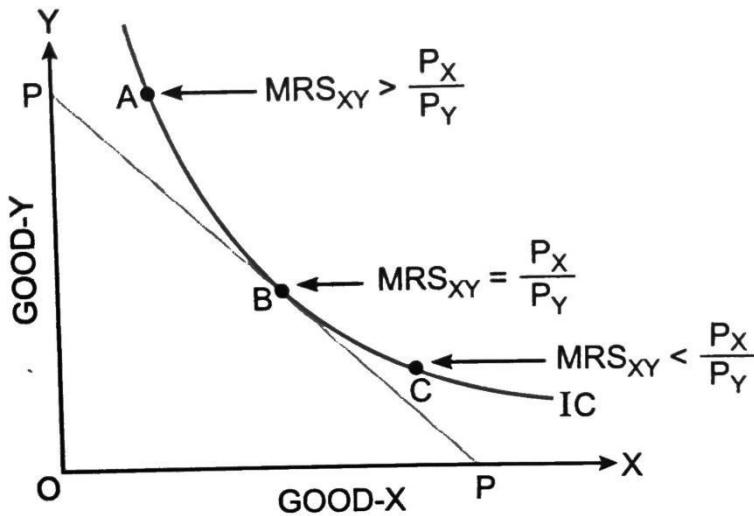
OR

B. In case of electricity which is sold by the government at a subsidized price, how can the government lower its losses without lowering the subsidy? 3

29. For those working under MGNERGA, the government has raised minimum employment from 100 to 150 days during an year. How would it impact the actual and potential level of output in the economy? 3

30. At a price of ₹5 per unit of commodity -X, total revenue is ₹ 1000. When it's price rises by 20%, total revenue increases by ₹ 500. Calculate it's price elasticity of supply. 4

31. A. Analyse the image given below and state which of the mentioned points(A,B or C) indicates highest level of consumer's satisfaction and why? Also state the rationale behind consumer's equilibrium being determined at the point identified in the first part of the question. 4



OR

B. A consumer buys a certain quantity of a good at a price of ₹ 10 per unit. When price falls to ₹ 8 per unit, she buys 40% more quantity. Calculate price elasticity of demand. 4

32. I. From the following schedule, find out the level of output at which the producer is in equilibrium. Give logical reason. 3

Output	Price(₹)	Total Cost(₹)
1	20	23
2	20	42
3	20	60
4	20	76
5	20	95
6	20	115
7	20	137

II. Distinguish between fixed cost and variable cost. 1

33. Read the following case study carefully and answer the questions on the basis of the same:-

A consumer usually decides his demand for a commodity on the basis of utility or satisfaction that he derives from it. What is utility? Utility of a commodity is its wants satisfying capacity. The more the need of a commodity or the stronger the desire to have it, the greater is the utility derived from the commodity. Utility is subjective. Different individuals can get different levels of utility from the same

commodity. For example, someone who likes chocolates will get much higher utility from a chocolate than someone who is not so fond of chocolates, also, utility that one individual gets from the commodity can change with change in place and time. For example, utility from the use of a room heater will depend upon whether the individual is in Ladakh or Chennai or whether it is summer or winter.

A. What is meant by the term utility? State its features. 3
B. Explain the relation between total utility and marginal utility. 3

34.A.I ***“Competition means rivalry. But under perfect competition there is no rivalry”.*** 4

How do you explain this fact?

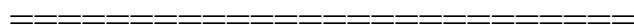
II. Draw and explain the average revenue curve of a firm under perfect competition. 2

OR

B.I. ***“When equilibrium price of a good is less than its market price, there will be competition among the sellers”.*** 3

Is it true? Give reasons for your answer.

II. Explain the concept of '***Black Marketing***' as a direct consequence of price ceiling with the help of a diagram. 3



Name _____ Sec: _____ Roll No : _____

CODE-

A

BURNPUR RIVERSIDE SCHOOL, BURNPUR
ANNUAL EXAMINATION: (2024-2025)
GEOGRAPHY
Class: XI

Time Allowed-3 Hours **Maximum Marks-70**

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. Answer 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. Answer to these questions shall be written in 120 to 150 words.
7. Section E Question number **29** and **30** are Map based questions.

SECTION-A

Question numbers 1 to 17 are Multiple Choice Questions

Match Column-I with Column-II and choose the correct option:

1

Column-I

- I) Meteorology
- II) Demography
- III) Sociology
- IV) Pedology

Column-II

- i) Population Geography
- ii) Soil Geography
- iii) Climatology
- iv) Social Geography

OPTIONS

- a) I- i II- iii III- iv IV- ii
- b) I-ii II- i III- iv IV- iii
- c) I-iv II- iii III- ii IV- i
- d) I-iii II- i III- iv IV- ii

2 **Choose the correct option**

1

Which one of the following scale measure the magnitude of an earthquake ?

- a) Metric scale
- b) Ratio scale
- c) Richter scale
- d) Mercalli scale

3 **Which one of the following statements is incorrect regarding core?**

1

- a) The core-mantle boundary is located at the depth of 5000 km.
- b) The outer core is in liquid state while the inner core is in solid-state.
- c) It is sometimes referred to as the nife layer.
- d) The core is the innermost layer of the earth.

4 **Choose the correct option**

1

Name the process by which clay or other fine particles go down the soil profile

- a) Eluviation
- b) Illuviation
- c) Leaching
- d) Salinisation

5 **Choose the correct option by reading the statements**

1

Statement I – Solution, carbonation, hydration, oxidation are chemical weathering processes.

Statement II -Most of the chemical weathering processes are caused by thermal expression and pressure release.

OPTIONS

- a) Both I and II are correct
- b) Both I and II are incorrect
- c) I is correct II is incorrect
- d) I is incorrect II is correct

6

Two statements are given below. They are Assertion (A) and Reason (R). Read them carefully and choose the correct option.

1

Assertion (A) - Carbon dioxide and water vapour are found only up to 90 km from the surface the earth.

Reason (R) - Carbon dioxide is largely responsible for the green house effect.

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

7

Choose the correct option

1

Sea salt, pollen, ash, smoke soot, fine soil - these are associated with

- a) Gases
- b) Dust particles
- c) Water vapour
- d) Meteors

8

Choose the correct option

1

Which one of the following is not a type of front?

- a) Cold
- b) Warm
- c) Stationary
- d) Seasonal

9

Which of the following is incorrectly matched?

1

<u>Forms</u>	<u>Features</u>
a) Dew -	Fog is mixed with smoke
b) Fog -	Fogs are drier than mist
c) Mist -	Contains more moisture than the fog
d) Frost -	Forms on cold surfaces when condensation takes place below freezing point.

10

Choose the correct option

1

The air that contains moisture to its full capacity.

- a) Relative humidity
- b) Specific humidity
- c) Absolute humidity
- d) Saturated air

11

Which one of the following statements is correct regarding wave?

1

- a) It is the rise and fall of the sea level, once or twice a day.
- b) Waves are actually the energy, not the water as such, which moves across the ocean surface.
- c) It is caused due to the attraction of the sun and the moon.
- d) It is the vertical motion .

12

Choose the correct option

1

Gulf of Mannar and Palk Strait separates India and _____

- a) Pakistan
- b) Bangladesh
- c) Sri Lanka
- d) China

13

Choose the correct option

1

Which one of the following longitudes is the standard meridian for India?

- a) $69^{\circ}30'E$
- b) $82^{\circ}30'E$
- c) $75^{\circ}30'E$
- d) $90^{\circ}30'E$

14

Which of the following is incorrectly matched?

1

<u>Name</u>	<u>Feature</u>
a) Ten degree channel -	Separates Andaman and Nicobar
b) Barren island -	Active Volcano
c) Andaman and Nicobar -	Built of coral deposits
d) Minicoy -	Largest island with an area of 453sq.km

15

Choose the correct option

1

Which one of the following is not a part of northern plain?

- a) Bhabar
- b) Tarai
- c) Himachal
- d) Alluvial plain

16

Two statements are given below. They are Assertion (A) and Reason (R). Read them carefully and choose the correct option.

1

Assertion(A) – Climate refers to the average of the weather conditions over a longer period of time.

Reason (R)- The climate of India has many regional variations.

17

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

Choose the correct option

1

Pre monsoon showers which are a common phenomena in Kerala and coastal areas of Karnataka

- a) Mango shower
- b) Blossom shower
- c) Nor westers
- d) Loo

SECTION-B

Question 18 & 19 are Source based questions.

18

Read the given Passage carefully and answer the questions that follow:

Stalactites hang as icicles of different diameters. Normally they are broad at their bases and taper towards the free ends showing up in a variety of forms. Stalagmites rise up from the floor of the caves. In fact, stalagmites form due to dripping water from the surface or through the thin pipe, of the stalactite, immediately below it. Stalagmites may take the shape of a column, a disc, with either a smooth, rounded bulging end or a miniature crater like depression. The stalagmite and stalactites eventually fuse to give rise to columns and pillars of different diameters.

- i Which geomorphic agent is responsible for the formation of stalagmites? 1
- ii What are stalactites? 1
- iii How pillars are formed? 1

19

Read the given Passage carefully and answer the questions that follow:

Forests and Life

To a vast number of tribal people, the forest is a home, a livelihood, their very existence. It provides them food, fruits of all kinds, edible leaves, honey, nourishing roots and wild game. It provides them with material to build their houses and items for practising their arts. The importance of forests in tribal economy is well-known as they are the source of sustenance and livelihood for tribal communities. It is commonly believed that the tribal communities live in harmony

with nature and protect forests. Forest and tribals are very closely related. The age-old knowledge of tribals regarding forestry can be used in the development of forests. Rather than treating tribals as minor forest produce collectors they should be made growers of minor forest produce and encouraged to participate in conservation.

i	How a group of people depends on the forest for their livelihood?	1
ii	Why the importance of forests in tribal economy is well known?	1
iii	How you can say forest and tribals are very closely related?	1

SECTION-C

Question numbers 20 to 23 are Short Answer type questions.

20	Explain the different types of plate boundaries.	3
21	Explain the factors that influence the temperature distribution of the oceans.	3
22	Give an explanatory note on any one of the peninsular river.	3
23	Why the Tamil Nadu coast remains dry during the monsoon seasons?	3

SECTION-D

Question numbers 24 to 28 are Long Answer Type questions.

24	List the stages in the evolution of the earth and explain each stage in brief.	5
25	What are the different ways of heating and cooling of the atmosphere? Explain.	5
26	Mention the physiographic divisions of India. What are the characteristic feature of the northern and north eastern mountains?	5
27	What are the important characteristic features of north Indian rivers? How are these different from peninsular rivers?	5

OR

Write the characteristic features of the Brahmaputra River system.

28	What are the different features of tropical evergreen and semi evergreen forest?	5
----	--	---

OR

What are the important reasons of declining of wildlife?

SECTION-E

Question numbers 29 & 30 are Map based questions having 5 sub-parts each.

29 **On the given political map of the World, seven geographical features have been marked as A, B, C, D, E, F, G. Identify any five with the help of the following information and write their correct names on the lines drawn near each feature.** 5

A A hot desert
B A cold ocean current
C A warm ocean current
D A sea
E A desert in Australia
F A warm ocean current
G A continent

30 **Locate and label any five of the following geographical features on the political outline map of India with appropriate symbols.** 5

30.1 The coral island in India.
30.2 The highest peak in western ghat
30.3 Southern most point of mainland of India
30.4 Largest river system of Rajasthan
30.5 A National Park in Uttarakhand
30.6 A Bird Sanctuary in Rajasthan
30.7 A Wild life Sanctuary in Tamil Nadu
