Name: _____ Sec: ____ Roll No.: ____

CODE-A

BURNPUR RIVERSIDE SCHOOL, BURNPUR
PERIODIC TEST I: [2026-2027]
ACCOUNTANCY
CLASS: XII

Time: 1 ½ Hours **Maximum Marks: 40**

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General Instruction:

Read the following instructions very carefully and strictly follow them.

(i) This question paper consists of **17** questions. All questions are **compulsory.**

(ii) Question no. 1-10 are multiple choice questions. Each question carries **1** mark.

(iii)Question no. 11-12 are short answer type- I questions. Each question carries **3** marks.

(iv) Question no. 13-15 are long answer type-I questions. Each question carries **4** marks.

(v) Question no. 16-17 are long answer type -II questions. Each question carries **6** marks.

1. Radhika, Mehar and Shubha were partners in a firm sharing profits and losses in the ratio of 9:8:7. If Radhika's share of profit at the end of the year to ₹5,40,000, Shubha's share of profit will be: 1

(A) ₹5,40,000 (B) ₹4,80,000
(C) ₹60,000 (D) ₹4,20,000

2. In the absence of an agreement, partners are entitled to: 1
(i) Profit share in capital ratio
(ii) Commission for making additional sale
(iii) Interest on loan and Advances by them of the firm
(iv) Salary for working extra hours

Choose the correct options:
(A) Only (iii) (B) (i) and (ii)
(C) (i), (ii) and (iii) (D)(i), (ii), (iii) and (iv)

3. Ridhima and Kavita were partners sharing profit and losses in the ratio of 3:2. Their fixed capitals wear ₹1,50,000 and ₹2,00,000 respectively. The partnership deed provides interest on capital @8% p.a. The net profit of the firm for the year ended 31st March, 2023 amount to ₹21,000. The amount of interest on capital credited to the current accounts of Ridhima and Kavita will be: 1

(A) ₹12,000 and ₹16,000 respectively
(B) ₹10,500 and ₹10,500 respectively
(C) ₹9,000 and ₹12,000 respectively
(D) No Interest will be allowed

4. A and B are partners sharing profit in the ratio of 3:2. They admit C as a partner by giving him ⅓ rd share in future profits. The new ratio will be: 1

(A) 12:8:5 (B) 8:12:5
(C) 5:5:12 (D) None of the above

5. Nidhi, Praveen and Ishu were partners in a firm sharing profits and losses in the ratio of 5:4:1. With effect from 1stApril, 2024, they decided to share profit and losses in the ratio of 4:1:5. On that date there was a debit balance of ₹4,00,000 in the Profit and Loss Account. The necessary journal entry to show the effect of above will be: 1

(A) Ishu's Capital A/c…Dr 1,60,000
To Nidhi's Capital A/c. 40,000
To Pranav's Capital A/c. 1,20,000
(B) Profit and loss A/c…..Dr 4,00,000
To Nidhi's Capital A/c. 2,00,000
To Pranav's Capital A/c. 1,60,000
To Ishu's Capital A/c 40,000
(C) Nidhi's Capital A/c….Dr 2,00,000
Pranav's Capital A/c…Dr. 1,60,000
Ishu's Capital A/c…Dr. 40,000
To Profit and loss A/c 4,00,000
(D) Nidhi's Capital A/c….Dr 40,000
Pranav's Capital A/c…Dr. 1,20,000
To Ishu's Capital A/c 1,60,000

6. Anuj and Kartik were partners in a firm sharing profits and losses in the ratio of 5:4. Anuj withdraw ₹20,000 in beginning of every alternative month starting from 1st April, 2023 during the year 31st March, 2024. Interest on Anuj's drawings @ 6% p.a. for the year and date 31st March, 2024 will be: 1

(A) ₹8,400 (B) ₹1,200
(C) ₹4,200 (D) ₹3,600

7. A, B, C are partners sharing profits in the ratio of 1:2:3. On 1.4.2023 they decided to share the profits equally. On that day there was a credit balance of ₹1,20,000 in their Profit and Loss Account and a balance of ₹1,80,000 General Reserve Account. Instead of closing the General Reserve Account and Profit and Loss Account, it is decided to record an adjustment entry for the same. In the necessary adjustment entry to give effect to the above arrangement: 1

(A) Dr. A by ₹50,000; Cr. B by ₹50,000
(B) Cr. A by ₹50,000; Dr. B by ₹50,000
(C) Dr. A by ₹50,000; Cr. C by ₹50,000
(D) Cr. A by ₹50,000; Dr. C by ₹50,000

8. Misha, Sarita and Isha were partners in a firm sharing profits in the ratio of 3:2:1. With effect from 1st April, 2024 they decided that they will share profits and losses equally. The gain or sacrifice by the partners due to change in profit sharing ratio will be: 1

(A) Misha's sacrifice ⅙; Isha's gain ⅙
(B) Misha's gain ⅙; Isha's sacrifice ⅙
(C) Misha's sacrifice ⅙; Sarita's gain ⅓; Isha's sacrifice ⅙
(D) Misha's sacrifice ⅓; Isha's gain ⅓

9. Reema, Misha, Sikha were partners in a partnership firm. sharing profits are losses in the ratio of 8:7:5. On 1st October, 2023 Reema advance a loan of ₹5,00,00 to the firm. There is no partnership deed. The firm's profit for the year ended 31st March, 2024 before charging the interest of Reema's loan amount to ₹2,15,000. The amount of profit credited to Shikha's capital account will be: 1

(A) ₹80,000 (B) ₹70,000
(C) ₹50,000 (D) ₹42,500

10. Assertion(A): Each partner carrying on the business of the firm is the principle as well as the agent for all the other partners of the firm. 1
Reason(R): There exist a mutual relationship between all the partners.

(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 correct but Reason(R) is incorrect
(D) Assertion(A) is incorrect but Reason(R) is correct

11. Rishi and Suman were partners in a firm. Their capitals were: Rishi ₹1,20,000 and Suman ₹80,000. The normal rate of return in similar business is 12%. The profits of the last 4 years were: 3

Year	₹
2019-20	33,000
2020-21	31,000
2021-22	25,000
2022-23	34,000

Calculate Goodwill of the firm on the based of 3 years purchase of the last 3 years average profits.

12. Vidhi, Manas and Ansh were partners sharing profit and losses in the ratio of 2:3:5. Ansh was given a guarantee that his share of profits in any given year would not be less than ₹1,20,000. Deficiency, if any, would be borne by Vidhi and Manas equally. profit for the year ended 31st March, 2024 amounted to ₹2,00,000. 3
Prepare Profit and Loss Appropriation A/c. Show your workings clearly.

13. Rambha and Urvashi were partners in a firm sharing profit and losses in the ratio of 13: 12. From 1st April, 2024, they decided to share future profits and losses in the ratio of 12:13. 4
On this day their Balance Sheet showed a Debit balance of

₹2,50,000 in Advertising Suspense A/c. And a balance of ₹5,00,000 in Contingency Reserve.
Partners decided to write off the balance of the Advertising Suspense account but decided is not to distribute Contingency Reserve.
Pass necessary journal entries for the above transactions on the reconstitution of the firm. Show your working clearly.

14. Suresh and Ramesh were partners in a firm sharing profits in the ratio 3:2. Their fixed capitals were: Suresh ₹9,00,000 and Ramesh ₹6,00,000. The partnership deed provided for the following: 4
(i) Interest on capital @ 5% per annum
(ii) ₹60,000 per annum salary to Suresh and salary ₹2,000 per month to Ramesh. The profit of the firm for the year end 31st March, 2024 was ₹2,34,000.
The profits were divided equally without providing for the above.
Pass adjustment entry and show your working clearly.

15. A and B sharing profit and losses in the ratio of 2:3 decide to share future profit and losses equally with effect from 1st April, 2024. An extract of their Balance Sheet as at 31st March, 2024 is as follows: 4

Liabilities	₹	Assets	₹
WCR	40,000		

Show the accounting treatment under the following alternative cases:
(i) If a claim on account of workman's compensation is estimated at ₹25,000
(ii) If a claim on account of workman's compensation is estimated at ₹50,000.
(iii) If a claim on account of workman's compensation is estimated at ₹40,000

16. A, B and C are partners in a firm sharing profits in the ratio of 3:2:1. Their Balance Sheet as at 31st March,2026 is as under: 6

Liabilities	₹	Assets	₹
Creditors	2,00,000	Premises	3,00,000
General		Machinery	1,80,000
Reserve	1,20,000	Stock	1,20,000
Capitals:		Debtors	2,50,000
A 3,00,000		Bank	20,000
B 1,50,000			
C 1,00,000			
	5,50,000		
	8,70,000		8,70,000

From 1st April,2026, the partners agreed to share future profits in the ratio of 4:3:3 and make the following adjustments:

(i) Premises will be appreciated by 10% and stock by ₹10,000
(ii) A provision for doubtful debts is to be made on debtors @4%
(iii) Sundry Creditors be reduced by ₹15,000
(iv) Machinery will be depreciated by 5%
(v) Goodwill of the firm is valued at ₹48,000

Prepare Revaluation A/c.

17. (a) On 1st January 2024, Ravi, Mohan and Shreya entered into partnership with fixed capitals of ₹3,00,000; ₹2,00,000 and ₹1,00,000 respectively. 6

Their partnership deed provided for the following:
(A) Salary to Ravi @ ₹20,000 per month
(B) Rent to Mohan for the use of his property for business purpose @₹5,000 per month.
(C) Manager is to be allowed a commission of 10% of the profit of the firm.

Profit for the year ended 31st March,2024 before providing of the above adjustments amounted to ₹3,45,000.
Answer the following questions:

(i) Remuneration to Manager will be:

(A) ₹30,000 (B) ₹33,000

(C) ₹34,500 (D) ₹27,000

(ii) Net Profit after manager's remuneration will be:

(A) ₹3,30,000 (B) ₹2,85,000

(C) ₹2,97,000 (D) ₹3,10,500

(iii) Interest on Capital allowed to partners will be:

(A) @ 12% p.a. (B) @ 6% p.a.

(C) @ 10% p.a. (D) No interest will be allowed

(iv) Shreya's share of profit will be:

(A) ₹79,000 (B) ₹80,000

(C) ₹39,500 (D) ₹40,000

(v) Profit after allowing salary will be:

(A) ₹2,97,000 (B) ₹3,27,000

(C) ₹3,30,000 (D) ₹2,37,000

(vi) Pick the odd one out:

(A) Salary to a partner

(B) Rent to a partner

(C) Commission to a partner

(D) Interest on partner's capital

OR

(b) A, B and C were partners in a firm having capitals of ₹1,00,000 and ₹1,00,000 and ₹2,00,000 respectively. 6

According to the partnership deed the partners were entitled to interest on capital @6% p.a. A being the working partner was also entitled to a salary of ₹5,000 per month. The profits were to be divided as follows:

(a) The first ₹40,000 in the ratio of 2:3:5

(b) Next ₹80,000 in the proportion of their capitals

(c) Remaining profits to be shared equally

The firm made a profit of ₹2,70,000 for the year ended 31st March,2024 before charging any of the above items.

Pass necessary journal entries for above transactions.

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Name: _____ Sec: ____ Roll No.: ____

CODE-B

BURNPUR RIVERSIDE SCHOOL, BURNPUR
PERIODIC TEST I: [2026-2027]
ACCOUNTANCY
CLASS: XII

Time: 1 ½ Hours **Maximum Marks: 40**

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(iv) Question no. 13-15 are long answer type-I questions. Each question carries **4** marks.

(v) Question no. 16-17 are long answer type -II questions. Each question carries **6** marks.

1. In a partnership firm, Partner A is entitled a monthly salary of ₹7,500. At the end of the year, firm earned a profit of ₹75,000 after charging A's salary. If the manager is entitled a commission of 10% on the net profit after charging his commission. Manager's commission will be: 1

   (A) ₹7,500 (B) ₹16,500
   (C) ₹8,250 (D) ₹15,000

2. Which of the following statements are correct: 1
   (i) The ability of a partner for act of the firm is unlimited
   (ii) Private assets of Apartment can also be used for paying the debt of the firm

(iii) Each partner is liable jointly we all other partners and severely to the third party for all the acts of the firm done, while he is a partner.
(iv) The liability of a partner is a partner is limited to the extent of his capital contribution.

(A) Only (iii) (B) (i) and (ii)
(C) (i), (ii) and (iii) (D) (i), (ii),(iii) and (iv)

3. Mickey, Tom and Jerry were partners in the ratio of 5:3:2. On 31st March, 2021, their books reflected a net profit of ₹2,10,000. As per the terms of the partnership deed they were entitled for interest on capital which amounted to ₹80,000; ₹60,000 and ₹40,000 respectively. Besides this a salary of ₹60,000 each was payable to Mickey and Tom. Calculate the ratio in which the profits would be appropriated: 1

(A) 1:1:1 (B) 5:3:2
(C) 7:6:2 (D) 4:3:2

4. Heema and Tara were partners in a firm sharing profit and losses in the ratio of 2:3. The admitted Ojas as a new partner. Hema surrendered ⅓rd of her share and Tara surrendered ½ of her share in favour of Ojas. The new profit-sharing ratio of Heema, Tara and Ojas will be: 1

(A) 8:9:13 (B) 3:2:5
(C) 2:3:5 (D) 2:3:25

5. Manav, Mayank and Manish were partners in a firm sharing profit and losses in the ratio of 5:3:2. On 31st March, 2024, their Balance Sheet showed a debit balance of ₹60,000 in Profit and Loss A/c. They decide that from 1st April, 2024, they will share profit in the ratio of 2:2:1. The journal entry for writing of the debit balance of profit and loss account on the reconstitution of firm will be: 1

	(A) Manav's Capital A/c…Dr	30,000	
	Mayank's Capital A/c…Dr	18,000	
	Manish's Capital A/c…Dr.	12,000	
	To Profit and Loss A/c.		60,000
	(B) Manav's Capital A/c…Dr	24,000	
	Mayank's Capital A/c…Dr	24,000	
	Manish's Capital A/c…Dr.	12,000	
	To Profit and Loss A/c.		60,000
	(C) Mayank's Capital A/c…Dr	6,000	
	To Manav's Capital A/c		6,000
	(D) Manav's Capital A/c…Dr	6,000	
	To Mayank's Capital A/c		6,000

6. Nandita and Prabha were partners in a firm. Nandita withdrew ₹3,00,000 during the year for her personal use. Partnership deed provides for charging interest on drawings @ 10% p.a. Interest on Nandita's drawing for the year 31st March, 2024 will be: 1

(A) ₹9,000 (B) ₹30,000
(C) ₹18,000 (D) ₹15,000

7. Arun and Varun are partner sharing profits in the ratio of 4:3. Their Balance Sheet showed a balance of ₹56,000 in the General Reserve Account and a debit balance of ₹14,000 in Profit and Loss Account. They now decided to share their future profits equally. Instead of closing the General Reserve Account and Profit and Loss Account, it is decided to pass an adjustment entry for the same. In adjustment entry: 1

(A) Dr. Arun by ₹3,000; Cr. Varun by ₹3,000
(B) Dr. Arun by ₹5,000; Cr. Varun by ₹5,000
(C) Cr. Arun by ₹5,000; Dr. Varun by ₹5,000
(D) Cr. Arun by ₹3,000; Dr. Varun by ₹3,000

8. X, Y and Z were partners in a firm sharing profits in the ratio of 2:3:4. With effect from 1st January, 2023 they decided that they will share profits and losses in the ratio of 3:4:5. The gain or sacrifice by the partners due to change in profit sharing ratio will be: 1

(A) X gain 1/36; Y Nil; Z sacrifice 1/36
(B) X sacrifice 1/36; Y Nil; Z gain 1/36
(C) X gain 1/36; Y sacrifice 1/36; Z Nil
(D) X sacrifice 1/36; Y gain 1/36; Z Nil

9. On 1st January, 2023, Abhishek, a partner, advanced a loan of ₹3,00,000 to the firm. In the absence of a partnership agreement, the amount of interest on the loan for the year ending 31st March, 2023 will be: 1

(A) ₹18,000 (B) ₹4,500
(C) ₹9,000 (D) No interest will be provided

10. Assertion(A): The maximum number of partners in a partnership firm is 50. 1
Reason(R): By virtue of companies act 2013, the Central Government is import to prescribe maximum numbers of partners in a firm. The Central Government prescribe the maximum number of partnerships in a firm is to be 50.

(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 correct but Reason(R) is incorrect
(D) Assertion(A) is incorrect but Reason(R) is correct

11. The capital of the firm of Rajat and Karan ₹15,00,000 and the market rate of interest is 12%. Annual salary of Rajat and Karan is ₹20,000 and ₹30,000 respectively. The profits for the last 3 years when ₹2,40,000; ₹2,80,000 and ₹3,20,000. Goodwill of the firm is to be valued on the basis of 2 years purchase of last 3 years average super profit. 3
Calculate the Goodwill of the firm.

12. Akash and Baadal entered into partnership on 1st October, 2023 with the capitals of ₹80,00,000 and ₹60,00,000 respectively. 3
They decided to share profit and losses equally. Partners were entitled to interest on capital @ 10% p.a. as per the provisions of the partnership deed.

Baadal is given a guarantee that his share of profits after charging interest on capital will not less than ₹7,00,000 per annum.
Any deficiency arising on that account shall be made by Akash. The profit of the firm of the year ended 31st March, 2024 amount to ₹13,00,000.
Prepare profit and loss appropriation account for the year in 31st March, 2024. Show your workings clearly.

13. Reeha, Meenu and Sara were partners in a partnership firm sharing profits and losses in the ratio of 2:2:1. With effects from 1st April, 2023 they agreed to share profit and losses equally. On that date there was a General Reserve of ₹50,000 in the books of the firm. It was agreed that: 4
(i) Goodwill of the firm be valued at ₹3,00,000
(ii) Profit on revaluation of assets and reassessment of liability amount to ₹30,000.
Pass necessary journal entries for the above transactions in the books of the firm.

14. A, B and C were partners in a firm. Their capitals were A ₹1,00,000; B ₹2,00,000 and C ₹3,00,000 respectively on 1st April, 2023. According to the partnership deed they were entitled to an interest on capital @ 5% per annum. In addition, A was also entitled to draw a salary of ₹5,000 per month. C entitled to a commission of 5% on net profit. The net profits for the year ending 31st March, 2024 were ₹3,60,000 distributed in the ratio of their capitals without providing for any of the above adjustments. The profits were to be shared in the ratio 2:3:5. 4
Pass the necessary adjustment entry showing the working clearly.

15. A, B and C sharing Profits and losses in the ratio 4:3:2 decide to share profits and losses in the ratio of 2: 3:4 with effects from 1st April, 2024. Following is an extract of their Balance Sheet as at 31st March, 2024: 4

Liabilities	₹	Assets	₹
IFR	54,000	Investment (at cost)	6,00,000

Case(i) if the market value of investment is ₹5,28,000
Case (ii) if the market value of investment is ₹6,60,000
Pass necessary journal entry.

16. P, Q and R are in partnership sharing profits and losses in the ratio of 5:4:3. On 31st March, 2026, their Balance Sheet was as follows: 6

Liabilities	₹	Assets	₹
Creditors	50,000	Cash at Bank	40,000
Outstanding Expenses	5,000	Debtors	2,10,000
General Reserve	75,000	Stock	3,00,000
Capital A/c:		Furniture	60,000
P 4,00,000		Plant and Machinery	4,20,000
Q 3,00,000			
R 2,00,000			
	9,00,000		
	10,30,000		10,30,000

It was decided that with effect from 1st April, 2026, the profit-sharing ratio will be 4:3:2. For this purpose the following revaluation were made:
(i) Furniture be taken at 80% of its value
(ii) Stock be appreciated by 20%
(iii) Plant and Machinery be valued at ₹4,00,000
(iv) Create provision for doubtful debts for ₹10,000 on debtors
(v) Outstanding expenses be increased by ₹3,000
Prepare Revaluation A/c

17. (a) Pushpa and Reshmi are partners in a firm. Their capitals were ₹3,00,000 and ₹2,00,000 respectively. Pushpa was to get ₹44,000 as a commission of 10% on the net profits before charging any commission. However, Reshmi was to get a 6

commission of 10% on the net profits after charging all commissions.
Answer the following questions:

(i) Reshmi's Commission will be:

(A) ₹40,000 (B) ₹44,000
(C) ₹36,000 (D) ₹1,60,000

(ii) Net Profit transferred to Profit & Loss Appropriation A/c before charging anything will be:

(A) ₹4,04,000 (B) ₹4,40,000
(C) ₹3,60,000 (D) ₹3,96,000

(iii) Reshmi's share of profit will be:

(A) ₹1,80,000 (B) ₹1,44,000
(C) ₹2,16,000 (D) ₹1,60,000

(iv) In case there is no partnership agreement, which of the following is incorrect:

(A) Interest on partner's loan will be allowed at 6% p.a.
(B) No interest is to be charged on drawings made by partners
(C) Interest on partner's loan to the firm will not be allowed in case of loss in the firm
(D) Even if the capital of the partner's is unequal, profit and losses will be shared equally

(v) In case of absence of partnership deed interest on capital will be:

(A) 10% (B) 6.5%
(C) 5.5% (D) No interest will be allowed

(vi) Pick the odd one out:

(A) Rent to partner
(B) Interest on partner's loan
(C) Interest on partner's capital
(D) Manager's commission

OR

(b) A, B and C were partners in a firm having capitals of ₹2,00,000; ₹2,00,000 and ₹80,000 respectively on 1st April,2025. Their Current Account balances were A: ₹20,000; B ₹10,000 and C ₹5,000(Dr.). According to partnership deed the partners were entitled to interest on capital @10% p.a. B being the working partner was also entitled to a salary ₹6,000 per quarter. The profits were to be divided as follows: 6

(a) The first ₹60,000 in proportion to their capitals
(b) Next ₹1,00,000 in the ratio of 4:3:1
(c) Remaining profits to be shared equally
The firm made a profit of ₹2,80,000 for the year ended 31st March, 2026 before charging any of the above items.
Pass necessary journal entries

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Name:_____ Sec:_____ Roll No:_____

CODE:B

BURNPUR RIVERSIDE SCHOOL,BURNPUR
PERIODIC TEST:1[2026-2027]
BIOLOGY
CLASS XII

Time: 1 ½ Hours **Maximum Marks : 40**

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General Instructions:

i The question paper contains 18 questions in 5 sections.
ii All questions are compulsory.
iii Section A has 8 objective type questions of 1 mark each.
Section B consists of 03 very short answer type carrying 2 marks each.
Section C has 04 short answer questions carrying 3 marks each.
Section D consists of 01 Source based or case based unit of assessment of 4 marks with sub-parts.
Section E consists of 02 long answer type question carrying 5 marks each.

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SECTION-A

1. Which one of the following in an embryo sac degenerate after fertilization? 1
a) Synergids and Primary endosperm cell.
b) Synergids and Antipodals.
c) Primary endosperm cell and Antipodals.
d) Egg and Antipodals.

2. The coconut water in a tender coconut represents 1
a) Cellular endosperm.
b) Free nuclear endosperm
c) Cellular and nuclear endosperm
d) Free nuclear embryo.

3. Which of the following has 23 chromosomes? 1
a)Spermatogonia
b) Zygote.
c)Secondary Oocyte.
d)Oogonia.

4. An IUD that is recommended to suppress sperm motility and the fertilizing capacity of sperm is: 1
a) Lippe's loop
b) LNG-20
c) Progestasert
d) Multiload 375

5. How many types of gametes would be produced if the genotype of a parent is SsYY? 1
a) 1 b) 2 c) 3 d) 4

Question No. 6to 8consists of two statements-assertion (A) and Reason (R) .Answer these questions selecting the appropriate options given below:
a)Both A and R are true and R is the correct explanation of A
b)Both A and R are true 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.

6. Assertion: -The endosperm of angiosperm is generally triploid. 1
Reason: -It develops from primary endosperm nucleus formed by fusion of haploid male gamete and secondary nucleus.

7. Assertion: The middle piece of sperm is called its powerhouse. 1
Reason: Numerous mitochondria in the middle piece produce energy for the movement of the tail.

8. Assertion: - Tubectomy is a sterilization procedure advised for females as a terminal method. 1
Reason: - In tubectomy a small part of the fallopian tube is removed or tied up blocking gamete transport thereby preventing conception.

SECTION B

9. Mention one advantage aminocentesis why has the government imposed a statutory ban in spite of its importance in medical field? 2

10. What is meant by monosporic development in female gametophyte? 2

11. What is bagging technique? How is it useful in plant breeding programme? 2

SECTION C

12. Plan an experiment and prepare a flow chart of the steps that you would follow to ensure that the seeds are formed only from the desired sets of pollen grains. 3

13. What is cleistogamy ? Write one advantage and one disadvantage of it to the plant ? 3

14. Schematically represent the steps of Spermatogenesis. 3

15 Explain the technique of ZIFT? How is IUT different from it?. 3

SECTION D (CASE BASED)

16. Infertility is defined as the inability of a couple to produce children despite regular unprotected sexual co-habition. It affects millions of people globally and can involve a variety of biological factors. 4

a) What is In vitro Fertilization?(1)
b) How is GIFT different from ICSI?(2)
c) What are the reasons of being infertile? (1)

OR

c)Why is adoption not a preferred choice amongst infertile couples?(1)

SECTION E

17. Explain the uterine and ovarian events and the hormonal changes in Menstrual cycle. 5

18. Explain the phenomenon of Co-dominance with an example and Incomplete Dominance with suitable examples of each. 5

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Name:_____Sec:_____ Roll No:___

CODE-A

BURNPUR RIVERSIDE SCHOOL, BURNPUR
PERIODIC TEST:1[2026-27]
BIOLOGY [044]
CLASS : XII

Time:1 ½ Hours **Maximum Marks : 40**

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General instructions:

1. This question paper consists of 18 questions in 5 sections.
2. All questions are compulsory.
3. Section A consists of 08 objective type questions carrying 1 mark each.
4. Section B consists of 03 very short answer type questions carrying 2 marks each.
5. Section C consists of 04 short answer type questions carrying 3 marks each.
6. Section D consists of 01 Source Based or Case Based unit of assessment of 4 marks with sub-parts.
7. Section E consists of 02 long answer type question carrying 5 marks each.

==========

SECTION A

1. If the number of chromosomes in an angiosperm species is 12, what will be the number of chromosomes in its perisperm and endosperm? 1
   a. 6,12
   b. 12,24
   c. 18,6
   d. 12,18
2. Which of the following is a feature of an anemophilous flower? 1
   a. One ovule in an ovary
   b. Mucilaginous pollen grains
   c. Light, sticky pollen grains
   d. Unexposed stamens

3. The ploidy of the oogonia, secondary oocyte and ootid is- 1
   a. n,2n,2n
   b. n,n,2n
   c. 2n,n,n
   d. n,2n,n
4. Which of the following can be transmitted by sharing of infected injection needles? 1
   a. Syphilis
   b. Hepatitis – B
   c. Genital warts
   d. Chlamydiasis
5. A tall pea plant with yellow seeds was crossed with a short pea plant with greed seeds. 50% of the offsprings were tall with green seeds. What was the genotype of the parents? 1
   a. TTYy; ttyy
   b. TtYy; TtYy
   c. TTyy; TtYY
   d. TtYY; ttyy

Question No. 6 to 8 consist of two statements – Assertion (A) and Reason (R). Answer these questions selecting the appropriate option given below:

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

6. Assertion: Pollen tablets are used to increase performance of athletes and race horses. 1
   Reason: Pollen grains are rich in nutrients.
7. Assertion: Testes are glands that produce spermatozoa. 1
   Reason: Spermatozoa undergo spermiogenesis to differentiate into spermatid.
8. Assertion: MTP is one of the major contraceptive methods practiced in India. 1
   Reason: It is considered safe during the first trimester.

SECTION B

9.	Discuss IUT and IUI.	2
10.	With the help of a diagram illustrate monosporic development.	2
11.	How are apomictic seeds obtained?	2

SECTION C

12.	What is double fertilisation?	3
13.	Discuss any three outbreeding devices evolved by plants to avoid inbreeding depression.	3
14.	What is foetal ejection reflex? How does it lead to parturition?	3
15.	STDs are very common within the age group of 15 to 24 years. State some simple principles to prevent such diseases.	3

SECTION D

Q.no. 16 is case based or source based unit of assessments of 04 marks with sub-parts (internal choice have been provided in one of the sub-parts).

16. Techniques designed to prevent unwanted pregnancies, crucial for population control and reproductive health are termed as contraceptive methods. These can be natural, physical, chemical or surgical. 4 (1+2+1)

a. Name two surgical methods.
b. How do hormone releasing IUDs work in preventing pregnancy?
c. What is periodic abstinence?

Or

d. State two characteristic features of an ideal contraceptive.

SECTION E

17. a. Discuss the hormonal control of spermatogenesis. 5
    b. With the help of a graph show the pituitary hormone level and ovarian hormone level in blood during the different phases of menstrual cycle.

18. 5

Case study 1(species X)

Red flowered plant was crossed with white flowered plant to produce pink flowered progeny.

Case study 2 (species Y)

Red flowered plant was crossed with white flowered plant to produce plants with red and white stripes.

What can you infer from the inheritance pattern of the two species? Justify your answer with the help of suitable Punnet crosses.

****

CODE :A

Name: _____ Sec: ____ Roll No.: ____

BURNPUR RIVERSIDE SCHOOL, BURNPUR
PERIODIC TEST-I: [2026-27]
BUSINESS STUDIES
CLASS: XII

Time: 1 ½ Hours **Maximum Marks: 40**

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General Instruction:

Read the following instructions very carefully and strictly follow them :

1. This question paper contains **17** questions. All questions are **compulsory.**
2. Marks are indicated against each question.
3. Answer should be brief and to the point.
4. Answer to Question number **1-10** carrying **1** mark are MCQs questions.
5. Answer to Question number **11-12** carrying **3** marks may be from 50 to 75 words.
6. Answer to Question number **13-15** carrying **4** marks may be in about 150 words.
7. Answer to Question number **16-17** carrying **6** marks may be in about 200 words.
8. Attempt all parts of a question together.

==========

1. "Management always works by keeping an end result or aim of the organisation. All activities of managers are directed towards the end result.'' From the above statement. Identify the features of management. 1

(A) Management is multidimensional
(B) Management is continuous process.
(C) Management is intangible
(D) Management is a goal oriented process.

2. Which of the following is not a part of work study? 1

(A) Method study (B) Motion study

(C) Time study (D) Functional foremanship

3. According to the United Nations Environmental Agency, the world produces around 300 million tons of plastic each year, half of which constitutes single-use items. Ford is recycling over one billion plastic bottles every year to develop elements of the car's interior, reducing the amount of plastic ending up in a landfill. The American car maker has revealed that their Romanian-built Eco Sport SUVs' carpets are made using 470 recycled single-use plastic bottles. The process for making Ford Eco Sport carpets involves shredding bottles and their caps into tiny flakes and then heating them to 260° C. Identify the related dimension of the business environment. 1

(A) Economic dimension (B) Technological dimension

(C) Social dimension (D) Political dimension

4. "Successful organizations do not achieve their goals by chance but by following a deliberate Process". Identify the process highlighted here. 1

(A) Management (B) Coordination

(C) Cooperation (D) Marketing

5. The _____technique proposed by Taylor aims at eliminating unnecessary diversity of products. 1

(A) Method study

(B) Standardization and simplification of work

(C) Time study

(D) Functional foremanship

6. Which dimension of business environment requires putting a statutory warning on the packets of tobacco product? 1

(A) Technological. (B) Economic.
(C) Legal. (D) All of the above.

7. Assertion (A) In any organization, coordination is required so the production and sales department can work hard in hand. Reason (R) coordination integrates group efforts 1

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.

8. Match the features of management principles with correct options in column II. 1

Column I	Column I
A. Flexibility	(i) Principles depends upon prevailing situations.
B. Contingent	(ii) Principles are applied to all organizations.
	(iii) Principles can modified by the managers.

Codes:-

	A	B		A	B
(A)	(i)	(ii)	(B)	(i)	(iii)
(C)	(ii)	(iii)	(D)	(iii)	(i)

9. Statement I – In order to survive , an – organization must earn enough revenues to cover cost. 1
Statement I – Management increases effectiveness by reducing cost and increasing productivity.
Alternatives:-
(A)Statement I is correct and Statement II is Incorrect.
(B)Statement II is correct and Statement I is Incorrect.
(C)Both the Statement are correct.
(D)Both the Statement are incorrect.

10. Aditi tends to be more biased towards her female employees when it comes to solve the conflicts among employees, which principle is being violated her? 1

(A) Discipline. (B) Order.
(C) Equity. (D) None of these.

11. (A) Coordination is the essence of Management. Do you agree? Give reason. 3

OR

(B) Explain any three point that highlight the importance of management.

12. Looking at the severe pandemic situation of Covid-19, the entire education system has adjusted itself with online teaching, online examination, developing creative ways of teaching etc. Which point of importance of the business environment does it reflect? Explain any two other importance of the business environment also. 3

13. (A) Explain any four points regarding function of management. 4

OR

(B) Explain any four points regarding nature of principle of management as a profession. 4

14. The Marketing Manager of 'Surya Bulb Limited' fixed the target for all his Sales Executives and gave them all the possible authorities to achieve it. They were asked to submit to him their performance report at the end of the month. All of them did the same. On the receipt of report, the expected and actual results of the Sales Executives were compared. On this basis planning for future was done. The Sales Executives also wrote in their report what the expectations of the customers from the company were. Majority of them had written that they (customers) wanted the company to cooperate in the construction of the Dharamshala going on in the city at that time. 4

The Marketing Manager placed this demand of the customers before the Board of Directors. This was happily accepted.

(a) Identify any one function of management described above
by quoting the relevant lines.

(b) Which two values are being given to the society.

15. Name and explain the technique of scientific management which: 4

(i) Helps in establishing interchange ability of manufactured parts and products.

(ii) Helps in eliminating unnecessary diversity of products and results in saving Cost

(iii) Is an extension of the principle of division of work and specialisation.

(iv) Overlooks the principle of equity.

16. The court issued the order that for vehicles to be smokeless was most essential and that any one violating this order shall have to pay a heavy fine. Abiding by this order was necessary for the health of people. Making this strict order of the court as the base, Gyan Motors Limited' resolved to manufacture such vehicles by using modern technology as should not produce any smoke at all. The government also announced to provide help in several ways to set up such industrial units. 6

Identify the three Dimensions of Business Environment described in the paragraph above by quoting the relevant lines.

17. (A) Explain the following techniques of Scientific Principles of Management: 6

(a) Method Study
(b) Motion Study
(c) Time study.

OR

(B) Explain the following Principles of Management:

(a) Scalar chain
(b) Subordination of Individual Interest to General Interest
(c) Discipline

****

Name: _____ Sec: ____ Roll No.: ____

CODE : B

BURNPUR RIVERSIDE SCHOOL, BURNPUR
PERIODIC TEST-I : [2026-2027]
BUSINESS STUDIES (054)
CLASS: XII

Time: 1 ½ Hours **Maximum Marks: 40**

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General Instruction:

Read the following instructions very carefully and strictly follow them :

1. This question paper contains **17** questions. All questions are **compulsory.**
2. Marks are indicated against each question.
3. Answer should be brief and to the point.
4. Answer to Question number **1-10** carrying **1** mark are MCQs questions.
5. Answer to Question number **11-12** carrying **3** marks may be from 50 to 75 words.
6. Answer to Question number **13-15** carrying **4** marks may be in about 150 words.
7. Answer to Question number **16-17** carrying **6** marks may be in about 200 words.
8. Attempt all parts of a question together.

1. In AX Limited , Amit Supervise and control the workers. He also ensures the arrangement of material and tools to start the process . Amit is working a which level of management? 1

(A) Operational level. (B) Middle level.
(C) Top level. (D) Either (b) or (c).

2. The Fayol's principle of _____ emphasizes on kindliness and justice in the behavior of managers towards workers. 1

(A) Equity. (B) Discipline.
(C)Esprit de corps. (D) Scaler chain.

3. Trends refer to changes and inclination towards new products and services,This statement describes significant effects of which environment on business? 1

(A) Economics. (B) Social.

(C) Political. (D) None of the above.

4. Without co-ordination , directing is impossible and of no worth if there is lack of coordination between superiors and . 1

(A) Managers. (B) Directors.

(C) Subordinates. (D) All of these.

5. Management principle help in thoughtful decision- making because they are based on. 1

(A) Blind faith. (B) Intuition.

(C) Logic (D) None of the above.

6. Which dimension of business environment is concerned with improvement and innovations, which provides new ways of producting goods and services. 1

(A) Technological. (B) Economical.

(C) Legal. (D) None of all above.

7. Assertion (A) The activities of each department need to be linked through coordination. 1

Reason(R) Specialists usually think that they are only qualified to evaluate, judge and decide according to their professional criteria.

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.

8. Match the column I with correct options in column II 1

Column I	Column II
A. Rest Interval in job.	(i) Technique of Taylor.
B. Functional Foremanship	(ii) Fatigue study.
	(iii) Time Study

Codes:-

(A) (ii) (i) (B) (iii) (ii)

(C) (ii) (iii) (D) (iii) (i)

9. Statement I Management of people is concerned with performance of various activities / tasks in an organisation. 1
Statement II Directing function of management is concerned with leading , influencing and motivating employees to perform the task assigned to them.
Alternatives:-
(A) Statement I is correct and Statement II is Incorrect.
(B) Statement II is correct and Statement I is Incorrect.
(C) Both the Statement are correct.
(D) Both the Statement are incorrect

10. "He keeps machines , tools , etc. ready for operations by concerned workers," Whose work is described by this sentence under functional foremanship? 1
(A) Instructional card clerk. (B) Gang boss.
(C) Repair boss. (D) Route clerk.

11. (A) Explain any three characteristics of coordination? 3

OR

(B) Explain any three characteristics of Management?

12. Identify the dimension of business environment in each of the following cases. 3
(i) The Project of Nano car re - established in Gujarat.
(ii) Decrease in the repo rate to overcome recession.

(iii) Increase in the number of working women.

13. (A) Explain any four points regarding significance of principles of management. 4

OR

(B) Explain any four points regarding nature of principles of management

14. Prakash limited was manufacturing water –heaters. In the first year of its operations, the revenue earned by the company was just sufficient to meet its costs to increase the revenue, the company analysed the reason of less revenues .After ananlysis the company decided. 4

(i) To reduce the labour cost by shifted the manufacturing units to a backward area where labour was available at a very low rate.

(ii) To start manufacturing solar water heaters and reduce the production of electric water- heaters slowly. This will not only help in covering the risks, but also help in meeting other objective too.

Identify and explain the objectives of management discussed above.

15. Name and explain the technique of scientific management which: 4

(i) Helps in establishing interchange ability of manufactured parts and products.

(ii) Helps in eliminating unnecessary diversity of products and results in saving cost.

(iii) Is an extension of the principle of division of work and specialization.

(iv) Overlooks the principle of equity.

16. ‘Konark Ltd’ is an electronic goods manufacturing enterprise situation in Shivpure , Madhya Pradesh. It is earning a very low revenue in comparison to a competing electronic goods manufacturing enterprise, ‘Nova Ltd’, situated in Mumbai, both Konark’s and Nova’s operations are affected directly by the investors, customers, competitors and suppliers, which are unique to their respective locations. In addition to this ,individuals firms of this field are affected indirectly by the factors like the money supply in the economy ,composition of the families, the technological changes ,etc. 6

(i) Identify and state the feature of the families, the technological change ,etc.

(ii) Also state any four points of importance of this concept.

17 (A) Explain the following technique of scientific management given by F.W Taylor. 6

(a) Science, not Rule of Thumb

(b) Harmony, Not Discord

(c) Development of workers to their Greater Efficiency and Prosperity

OR

(B) . Explain the following Fayol’s Principles of management.

(a) Authority and Responsibility.

(b)Scalar chain.

(c)Equity.

Name:_____ Sec:_____ Roll No:_____

CODE : B

BURNPUR RIVERSIDE SCHOOL, BURNPUR

PERIODIC TEST 1: [2026– 2027]

CHEMISTRY

CLASS XII

Time Allowed: $1\frac{1}{2}$ Hours. **Maximum Marks: 40**

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General Instructions:

i. There are 19 questions in all. All questions are compulsory.

ii. This question paper has five sections: Section - A, Section - B, Section - C, Section - D and Section - E

iii. Section - A contains 08 questions, 06 MCQ, s and 02 A/R of 1 mark each.

iv. Section - B contains 04 SA-I type questions of 2 marks each.

v. Section - C contains 05 SA-II type questions of 3 marks each.

vi. Section - D consist of 01 case-based question of 4 mark.

vii. Section - E consist of 01 LA - type question of 5 mark.

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SECTION – A

Select and write the most appropriate option out of the four options given for each of the questions 1 -6. There is no negative mark for incorrect response.

1. The mole fraction of a solute in 2.0 molal aqueous solution is- 1

   (a) 1.87
   (b) 0.347
   (c) 0.0347
   (d) 0.00347

2. The boiling point of an azeotropic mixture of water and ethanol is less than that of pure water and ethanol. The mixture shows: 1

   (a) Positive deviation from Raoult's law
   (b) Negative deviation from Raoult's law
   (c) No deviation from Raoult's law
   (d) That the solution is an ideal solution

3. On electrolysis of very dilute aqueous solution of NaCl using platinum electrodes- 1

(a) H_2 gas is evolved at anode
(b) Na is produced at cathode
(c) O_2 gas is evolved at anode
(d) H_2 gas is evolved at cathode

4. An electrochemical cell can behave like an electrolytic cell when: 1

(a) $E_{cell} = 0$
(b) $E_{cell} > E_{ext}$
(c) $E_{ext} > E_{cell}$
(d) $E_{cell} = E_{ext}$

5. A primary alkyl halide would prefer to undergo: 1

(a) S_N1 reaction
(b) S_N2 reaction
(c) α-Elimination
(d) Racemisation

6. What should be the correct IUPAC name for diethyl bromomethane? 1

(a) 1-Bromo-1,1-diethylmethane
(b) 3-Bromopentane
(c) 1-Bromo-1-ethylpropane
(d) 1-Bromopentane

Question No. 7 and 8 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.

7. **Assertion(A):** Soda bottles are sealed under high pressure. 1
Reason(R): High pressure increases the solubility of CO_2 gas.

8. **Assertion(A):** Electrolytic conduction decreases with increase in temperature. 1
Reason(R): Increase in temperature causes the kinetic energy to increase.

SECTION – B

9. Explain the following with the help of Henry's law:
(a) Bends 2
(b) Anoxia

10. **Give reasons for the followings:** 2
(a) Mercury cell delivers a constant potential during its life time.
(b) In the experimental determination of electrolytic conductance, DC is not used.

11. (a) Write anode, cathode and overall reactions involved in dry cell. 2

OR

(b) State Faraday's laws of Electrolysis.

12. Identify A & B in the following: 2

1-Bromocyclohexane + Mg $\xrightarrow{dry\ eher}$ A $\xrightarrow{H2O}$ B

SECTION-C

13. The vapour pressure of pure benzene at a certain temperature is 0.850 bar. A non-volatile, non-electrolyte solid weighing 0.5 g when added to 39.0 g of benzene (molar mass = 78 g mol^{-1}), vapour pressure of the solution then is 0.845 bar. What is the molar mass of the solid substance? 3

14. Represent the cell in which the following reactions takes place: 3
$Mg(s) + 2Ag^{+}$ (0.0001 M) → Mg^{2+} (0.130 M) + 2Ag(s)
Calculate its E_{cell} if E°_{cell} = 3.17 V. (Given log1.3= 0.114, log10=1)

15. What is the standard free energy change for the following reaction at room temperature? Is the reaction spontaneous? 3

$$Sn(s) + 2Cu^{2+}(aq) \rightarrow Sn^{2+}(aq) + 2Cu(s)$$

(Given $E^0_{Sn2+/Sn}$= -0.14V, $E^0_{Cu/Cu2+}$ =0.15V)

16. (a) How can you convert the following? 3
But-1-ene to 1-iodobutane.

(b) Why thionyl chloride method is preferred for preparing alkyl chloride from alcohols?

17. (a) Write the structure of the major organic product in each of the following reactions:

(i) $(CH3)_3CBr + KOH \xrightarrow{Ethanol/heat}$ 3

(ii) $CH_3CH(Br)CH_2CH_3 + NaOH \xrightarrow{water}$

(iii) $C_6H_5ONa + C_2H_5Cl \rightarrow$

OR

(b)(i) Write the equation for the conversion of benzene to biphenyl.

(ii) What is the role of Lewis acid in the preparation of aryl halide in dark?

SECTION-D

Question no. 18 is case based / source-based questions with 3 sub parts. Internal choice is provided in one of these sub parts.

18. The replacement of hydrogen atom(s) in an aliphatic or aromatic hydrocarbon by halogen atom(s) results in the formation of alkyl halide and aryl halide respectively. Haloalkanes contain halogen atom attached to the sp^3 hybridized carbon atom of an alkyl group. 4

(a) Draw the structure of 4-bromo-3-methyl pent-2-ene.

(b) Write the IUPAC name for neo-pentyl bromide.

(c) Why boiling point of alkyl bromide is higher than alkyl chloride?

OR

(c) Why alkyl halides are better solvents than aryl halides? Explain.

19. **SECTION-E**

(a) Define Raoult's law. 5

(b) Which law is used to explain the concept of solubility of gases in liquids?

(c) What happens when acetone is added to pure ethanol?

(d) Why aquatic species are more comfortable in cold water than in warm water?

(e) What is the significance of Henry's law constant K_H?

OR

(a) Which of the two aqueous solutions has a higher melting point: 2 molal glucose solution or 3 molal sucrose solution? Why?

(b) A 1.00 molal aqueous solution of CCl_3COOH is heated to its boiling point. The solution has boiling point of 100.18°C. Determine the Van't Hoff factor for CCl_3COOH.
(K_b for water = 0.512 K kg mol^{-1})

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Name:_____ Sec:_____ Roll No:____

CODE : A

BURNPUR RIVERSIDE SCHOOL, BURNPUR
PERODIC TEST :1 [2026-2027]
SUBJECT : CHEMISTRY
Class: XII

Time: 1 ½ Hours **Maximum Marks: 40**

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General instructions:-

a) All questions are compulsory.
b) Section-A consists of 6 MCQs and 2 Assertion-Reasoning type questions carrying 1 mark each.
c) Section-B consists of 4 Short Answer type-I questions carrying 2 marks each.
d) Section-C cosists of 5 Short Answer type-II questions carrying 3 marks each.
e) Section-D consists of 1 Case/source based question carrying 4 marks .
f) Section -E consists of 1 Long answer type questions carrying 5 marks.

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SECTION -A

1 Isotonic solutions are those which : 1

a) Have same osmotic pressure
b) Are ideal solutions
c) Are non-ideal solutions
d) Have same boiling point

2 Considering 100% ionization of the given ionic solutes, aqueous solution of which of the following substances have least freezing point ? 1

a) Glucose
b) NaCl
c) $Al_2(SO_4)_3$
d) $CaCl_2$

3 An electrochemical cell behaves like an electrolytic cell when 1

a) $E_{cell} = E_{external}$
b) $E_{cell} = 0$
c) $E_{cell} < E_{external}$
d) $E_{cell} > E_{external}$

4 Unit of molar conductivity is : 1

a) $Ohm^{-1} cm^{-2} mol^{-1}$
b) $Ohm\ cm^{-2} mol^{-1}$
c) $Ohm^{-1} cm^{2} mol^{-1}$
d) $Ohm^{-1} cm^{2} mol$

5 Which compound has zero dipole moment ? 1

a) CCl_4 b) $CHCl_3$ c) CH_2Cl_2 d) CH_3Cl

6 An S_N1 reaction of an enantiomerically pure chiral alkyl halide gives a product : 1

a) With retention of configuration
b) With inversion of configuration
c) With racemization
d) With partial racemization

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

7 **Assertion :** Osmotic pressure is a colligative property. 1

Reason : Osmotic pressure of a solution depends on the molar concentration of solute at any temperature T.

8 **Assertion :** Conductivity of an electrolyte increases with decrease in concentration. 1

Reason : Number of ions per unit volume decreases on dilution.

SECTION-B

9 What is the advantage of using osmotic pressure as compared to other colligative properties to determine the molecular mass of macromolecules ? 2

10 How much charge is required for the following reductions : 2

i) 1 mol of Al^{3+} to Al
ii) 1 mol of MnO_4^- to Mn^{2+} ?

11 Why is it necessary to use a salt bridge in a galvanic cell ? 2

OR

What are fuel cells ? Write the reactions of H_2-O_2 fuel cell.

12 Complete the following equations : 2

a) $CH_3CH_2CH=CH_2 + HBr$ ---(peroxide)-→

b) $C_6H_5ONa + C_2H_5Cl$ ---→

SECTION-C

13 The freezing point of a solution containing 0.2g acetic acid in 20 g of benzene is lowered by 0.45˚C. Calculate the degree of association of acetic acid. K_f for benzene is 5.12 K Kg mol^{-1}. 3

14 What is the cell reaction and EMF of the following cell ? 3

$Ni/Ni^{2+}(0.1M)//Ag^{+}(0.1M)/Ag$
Given : $E^{\circ}(Ni^{2+}/Ni) = - 0.25$ V
$E^{\circ}(Ag^{+}/Ag) = + 0.80$ V

15 Write the name of the cell which is generally used in hearing aids. Write the reactions taking place at the anode and cathode of this cell. 3

16 Give reasons : 3
a) C-Cl bond in chlorobenzene is shorter than C-Cl bond in CH_3Cl.
b) Haloarenes are insoluble in water but are soluble in benzene.
c) Grignard reagents should be prepared under anhydrous conditions.

17 **A.** How will you bring about the following conversions? 3
a) ethane to bromoethane
b) propene to 1-nitropropane
c) toluene to benzyl alcohol

OR

B. Write the structures of the major organic product in each of the following reactions :
a) $CH_3CH_2CH_2Cl + NaI$ ----(acetone)-→
b) $CH_3CH_2CH_2OH + SOCl_2$ ----→
c) $CH_3CH(Br)CH_2CH_3 + NaOH(aq)$ ----→

SECTION-D

18 **Read the following case/ paragraph and answer the following questions:** 4
The polarity of C-X bond of alkyl halide is responsible for their nucleophilic substitution, elimination and their reaction with metal atoms to form organometallic compounds.
Aryl halides are prepared by nucleophilic substitution of arenes.
Nucleophilic substitution reactions are categorized into S_N1 and S_N2 on the basis of their kinetic properties.

a) What happens when bromobenzene is treated with Mg in the presence of dry ether?

b) Which compound will react faster in S_N1 reaction with OH^- ?

$(CH_3)_3CCl$ or CH_3Cl

c) Write the equations for the preparation of 1-iodobutane from:
i) 1-chlorobutane
ii) but-1-ene

OR

c) Write the structure of the major products in each of the following reactions :
i) $(CH_3)_3CBr + KOH(alc.)$ ----→
ii) $C_6H_5Cl + CH_3COCl$ ----(anhyd. $AlCl_3$) -→

SECTION-E

19 **A.** Suggest the most important type of intermolecular attractive interaction in the following pairs : 5
a) n-hexane and n-octane
b) I_2 and CCl_4
c) $NaClO_4$ and water
d) methanol and acetone
e) acetonitrile and acetone

OR

B. Amongst the following compounds, identify which are insoluble, partially soluble and highly soluble in water?
a) phenol
b) toluene
c) formic acid
d) ethylene glycol
e) chloroform

****

NAME_____SEC_____ROLL NO_____

CODE:A

BURNPUR RIVERSIDE SCHOOL, BURNPUR
PERIODIC TEST-I:[2026-2027]
COMPUTER SCIENCE
CLASS: XII

Time: 1 ½ Hrs. **Maximum Marks: 40**

==========

General Instructions:

- The question paper is divided into 3 sections – A, B, C, D and E.
- Section-A, consists of 12 questions (1-12). Each question carries 1 mark.
- Section-B, consists of 05 questions (13-17). Each question carries 2 marks.
- Section-C, consists of 03 questions (18-20). Each question carries 3 marks.
- Section-D, consists of 1 question (21) of 4 marks.
- Section-E, consists of 1 question (22) of 5 marks .

==========

Section-A
Each question carries 1 marks

1. A string can be surrounded by three sets of single quotation marks or by three sets of double quotation marks. 1

2. How would you write x^y in Python as an expression ? 1
   a. x^y
   b. x**y
   c. x^^y
   d. none of these

3. The keys of a dictionary must be of ..... types. 1
   a. integer
   b. mutable
   c. immutable
   d. any of these

4. What is the value of the following expression ? 1
   3 + 3.00, 33.0**
   a. (6.0, 27.0)
   b. (6.0, 9.00)
   c. (6, 27)
   d. [6.0, 27.0]

5. Which line of code produces an error ? 1

a. "one" + 'two'
b. 1 + 2
c. "one" + "2"
d. '1' + 2

6. Which line of code will cause an error ? 1

1. num= [5, 4, 3, [2], 1]
2. print(num[0])
3. print(num[3][0])
4. print(num[5])

a. Line 3
b. Line 2
c. Line 4
d. Line 1

7. Which of the following items are present in the function header ? 1

a. function name only
b. both function name and parameter list
c. parameter list only
d. return value

8. Which of the following function headers is correct ? 1

a. def f(a = 1, b):
b. def f(a = 1, b, c = 2):
c. def f(a = 1, b = 1, c = 2):
d. def f(a = 1, b = 1, c = 2, d):

9. Which of the following random module functions generates an integer ? 1

a. random()
b. randint()
c. uniform()
d. all of these

10. Python has a module namely _____ that provides random -number generators. 1

Q11 and 12 are ASSERTION AND REASONING based questions. Mark the correct choice as:

(a) Both A and R are true and R is the correct explanation of A.
(b) Both A and R are true but R is not the correct explanation of A.
(c) A is True but R is false (or partly true).
(d) A is false (or partly true) but R is true.
(e) Both A and R are False or not fully true.

11. **Assertion.** Lists and Tuples are similar sequence types of Python, yet they are two different data types. 1
Reason. List sequences are mutable and Tuple sequences are immutable.

12. **Assertion.** Dictionaries are mutable but their keys are immutable. 1
Reason. The values of a dictionary can change but keys of dictionary cannot be changed because through them data is hashed.

SECTION–B

Each question carries 2 marks

13. What is one difference between local and global variable ? 2

14. Name the Python Library modules which need to be imported to invoke the following functions : 2
(i) log()
(ii) pow()
(iii) cos
(iv) randint

15. What are the possible outcome(s) executed from the following code? Also specify the maximum and minimum values that can be assigned to variable NUMBER. 2

```
STRING = "CBSEONLINE"
NUMBER = random.randint(0, 3)
N = 9
while STRING[N] != 'L' :
    print(STRING[N] + STRING[NUMBER] + '#', end = '')
    NUMBER = NUMBER + 1
    N = N - 1
```

1. ES#NE#IO#
2. LE#NO#ON#
3. NS#IE#LO#
4. EC#NB#IS#

16. **Find the errors. State reasons.** 2

```
t = (1, "a", 9.2)
t[0] = 6
```

17. Write the output of the code given below : 2

```
my_dict = {"name" : "Aman", "age" : 26}
my_dict['age'] = 27
my_dict['address'] = "Delhi"
print(my_dict.items())
```

Section-C
Each question carries 3 marks

18. What are the errors in following codes ? Correct the code and predict output : 3

```
total = 0
   def sum(arg1, arg2):
   total = arg1 + arg2;
   print("Total :", total)
return total;
sum(10, 20);
print("Total :", total)
```

19. **Predict the output of the following code fragments:** 3

```
keepgoing = True
x=100
while keepgoing :
   print (x)
   x = x - 10
   if x < 50 :
      keepgoing = False
```

20. **Find the errors. State reasons.** 3

```
for Name in [Amar, Shveta, Parag]
   IF Name[0] = 'S':
      print(Name)
```

Section-D
Each question carries 4 marks

21. Write a python program that creates a tuple storing first 9 terms of Fibonacci series. 4
9 terms of Fibonacci series are: (0, 1, 1, 2, 3, 5, 8, 13, 21)

Section-E
Each question carries 5 marks

22. Write a function that receives two numbers and generates a random number from that range. Using this function, the main program should be able to print three numbers randomly. 5

==========

Name _____Sec ___Roll No.___

CODE: B

BURNPUR RIVERSIDE SCHOOL, BURNPUR
PERIODIC TEST-I : [2026-2027]
COMPUTER SCIENCE (083)
CLASS-XII

Time: 1 ½ Hrs. **Maximum Marks:40**

==========

General Instructions:

- *The question paper is divided into 3 sections – A, B, C, D and E.*
- *Section-A, consists of 12 questions (1-12). Each question carries 1 mark.*
- *Section-B, consists of 05 questions (13-17). Each question carries 2 marks.*
- *Section-C, consists of 03 questions (18-20). Each question carries 3 marks.*
- *Section-D, consists of 1 question (21) of 4 marks.*
- *Section-E, consists of 1 question (22) of 5 marks.*

==========

SECTION-A

Each question carries 1 marks

1. State **True** or **False** : [1]
   Do both the following represent the same list.
   [‘a’, ‘b’, ‘c’]
   [‘c’, ‘b’, ‘a’]
2. What is printed by the following statements? [1]
   D1 = {“cat”:12, “dog”:6, “elephant”:23, “bear”:20}
   print (“dog” in D1)
   a. True b. False c. Error d. none
3. Given the lists L=[2,4,6,8,10,12,14,16] [1]
   Write the output of print(L[5:7])
   a. [10, 12, 14] b. [12, 14]
   c. [12, 14, 16] d. none
4. Which of the following function headers is correct? [1]
   a. def f(a=1, b): b. def f(a=1, b, c=2):
   c. def f(a=1, b=1, c=2): d. def f(a=1, b=1, c=2, d):
5. Identify the valid declaration of d: [1]
   d = {1 : ‘Jan’, 2 : ‘Feb’, 3 : ‘Mar’}
   a. string b. dictionary c. list d. tuple
6. Which of the following is not a valid arithmetic operator in Python: [1]
   a. ? b. < c. and d. none

7. Which of the following function calls will cause error while invoking the below given function header? [1]

```
def test(a, b, c, d)
```

a. test(1, 2 ,3, 4) b. test(a=1, 2, 3, 4)
c. test(a=1, b=2, c=3, d=4) d. none

8. What is a variable defined inside a function referred to as? [1]
a. A static variable b. A global variable
c. A local variable d. none

9. The collection of modules and packages that together cater to a specific type of applications or requirements, is called ____. [1]
a. module b. library c. classes d. none

10. *Fill in the blank:* [1]
The uniform ( ) function is the part of ____ module.

Q11 and 12 are ASSERTION AND REASONING based questions. Mark the correct choice as:

(a) Both A and R are true and R is the correct explanation of A.
(b) Both A and R are true but R is not the correct explanation of A.
(c) A is True but R is false (or partly true).
(d) A is false (or partly true) but R is true.
(e) Both A and R are False or not fully true.

11. **Assertion (A):** Lists and Tuples are similar sequence types of Python, yet they are two different datatypes. [1]

Reason (R): List sequences are mutable and Tuple sequences are immutable.

12. **Assertion (A):** The break statement can be used with all selection and iteration statements. [1]
Reasoning (R): Using break with an if statement will give no error.

SECTION–B

Each question carries 2 marks

13. Find the output of the following: [2]

```
def show(x):
    print(11//x)
show(5)
print("\n")
show(6)
```

14. What is the problem in the following piece of code? [2]

```
from math import factorial
print (math.factorial(5))
```

Also, write the correct piece of code.

15. What would be the output produced by the following code: [2]

```
import math
import random
print (math.ceil(random.random( )))
```

Justify your answer.

16. What is the length of the tuple shown below? [2]

t = ((((‘a’, 1), ‘b’, ‘c’), ‘d’, 2), ‘e’, 3)

Explain briefly to support your answer.

17. What is the output of the following code? [2]

```
>>> a = (2**3)//2
>>> b = 2//3**2
>>> a, b
```

SECTION-C

Each question carries 3 marks

18. Find and write the output of the following python code: [3]

```
def abc (a=10, b=3):
    a = a // b
    b *= 2
    print(a, b)
abc(8, 7)
abc( )
abc(11)
```

19. Find and write the output of the following python code: [3]

```
data = [“p”, 20, “r”, 10, “s”, 30]
times = 0
alpha = “ ”
add = 0
for c in range(1, 6, 2):
    times =  times + c
    alpha =  alpha + data[c-1] + “$”
    add =  add + data[c]
    print ( times,  add,  alpha)
```

20. Write the output of the following python code: [3]

```
S= "Mom and Dad"
L=S.split( )
for W in L:
   x=W.upper( )
   if x == x[::-1]:
      for I in x:
         print(I, end= "*")
   else:
      for I in W:
         print(I, end= "#")
   print( )
```

SECTION-D
Each question carries 4 marks

21. Write a program to enter 10 integer numbers into a list and perform the following task: [4]
(i) Sum of all odd numbers.
(ii) Count how many numbers are even.

SECTION-E
Each question carries 5 marks

22. What do you understand by 'Default Argument'. (2) [5]
Write python code as an example to support your answer. (3)

==========

Name: _____ Sec: _____Roll No.: ____

CODE-A

BURNPUR RIVERSIDE SCHOOL, BURNPUR
PERIODIC TEST-1: [2026-2027]
ECONOMICS (030)
CLASS: XII

Time: 1½ Hrs. **Maximum Marks: 40**

==========

General Instructions:

1) This paper contains 10 Multiple Choice Questions type questions of 1mark each.

2) This paper contains 2 Short Answer Questions type questions of 3 marks each to be answered in 60 to 80 words.

4) This paper contains 3 Short Answer Questions type questions of 4 marks is to be answered in 80 to 100 words

5) This paper contains 1 Long Answer Questions type questions and 1 case based question of 6 marks each to be answered in 100 to 150 words.

6) All questions are compulsory.

==========

1. In the context of macroeconomics, which one of the following statements is correct? **1**

a. Partial equilibrium is the method of study in macroeconomics
b. There is no aggregation in macroeconomics
c. Determination of overall level of output is the central issue in macroeconomics
d. All of these

2. On the eve of independence, Indian economy was the net exporter of:- **1**

a. Raw material
b. Primary products
c. Finished products
d. Both (a) and (b)

3. Read the following statements carefully. **1**

Statement 1: Expenditure on final goods includes consumption expenditure and investment expenditure.

Statement 2: Expenditure on intermediate goods leads to intermediate consumption.

In light of the given statements, choose the correct alternative from the following:

a. Statement 1 is true and Statement 2 is false
b. Statement 1 is false and Statement 2 is true
c. Both statements are true
d. Both statements are false

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

Assertion(A)- Modernisation as a planning objective was expected to contradict with employment generation.

Reason(R)- Modernisation refers to updating and adopting modern technology in the process of growth.

Alternatives:

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

5. Which of the following can happen with an increased use of credit cards in an economy, noting the fact that credit cards are not a method of payment, but only a method of deferred payments through your demand deposits in the banks? **1**

a. Increase in money supply
b. Decrease in money supply
c. Increase in money demand
d. Decrease in money demand

6. Identify the correct sequence of alternatives given in column II matching them with respective items in column I. **1**

Column I	Column II
A. Financial sector	i. Revenue and expenditure policy of the government
B. Fiscal policy	ii. Foreign Direct Investment + Foreign Institutional Investment
C. Devaluation	iii. Banking class non-banking financial institutions
D. Foreign investment	iv. Lowering the value of domestic currency in relation to currencies of other countries

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

7. With an increase in Statutory Liquidity Ratio, flow of credit in the economy:- **1**

Alternatives:
a. Increases
b. Decreases
c. remains unchanged
d. None of these

8. Sale of equity of public sector enterprises by the govt. leads to _____ **1**

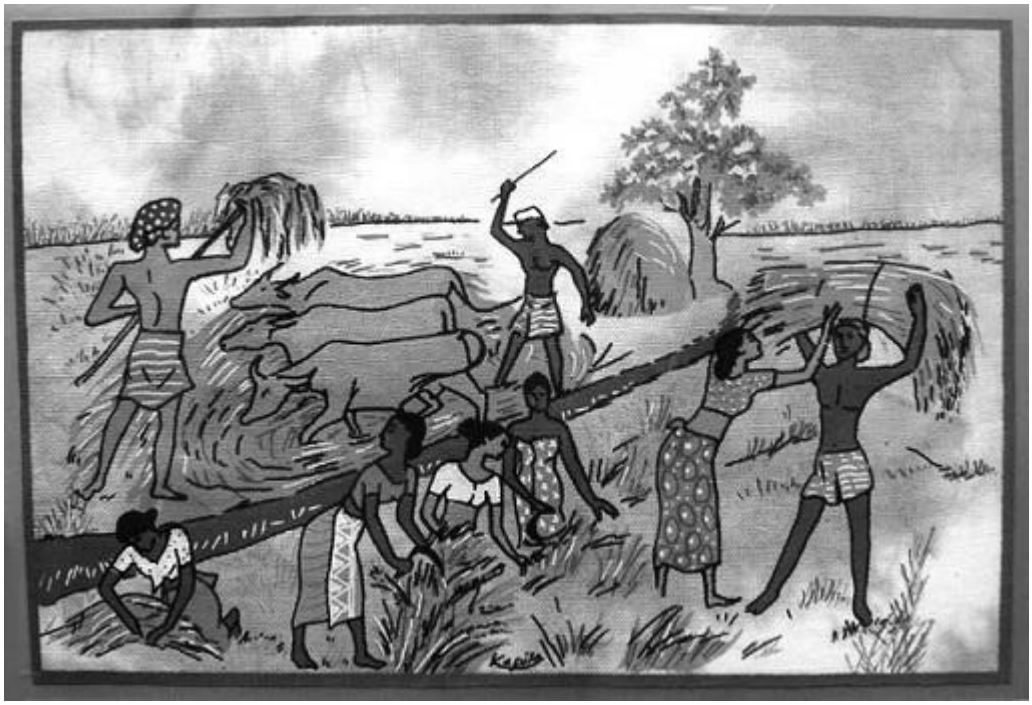
a. Liberalisation
b. Privatisation
c. Globalisation
d. Disinvestment

9. Expenditure by the producers on the purchase of plant and machinery causes_____ **1**

Alternatives:

a. Fixed investment
b. Inventory investment
c. Gross investment
d. Net investment

10. What does the picture indicate about Indian economy on the eve of independence? **1**



a. Low productivity
b. Traditional methods of farming
c. Lower yield of production
d. All of the above

11. ***"During the colonial period, the occupational structure showed lopsided movements".*** Do you agree with the given statement? Justify your answer with valid arguments. **3**

12.a. ***"Central Bank act as the banker to the government".*** Elaborate the given statement. **3**

OR

b. Distinguish between Statutory Liquidity Ratio and Cash Reserve Ratio.

13. Explain the concept of circular flow of income in our two sector economy with diagram. **4**

14. Why was ***'self – reliance'*** considered one of the necessary goal in the planning of the Indian economy? **4**

15. ***"Despite being one of the most populous regions under British rule, India showed signs of poor human development on the eve of independence".***
Analyse this statement by explaining the demographic condition of India before Independence. **4**

16.a. Explain the significance of ***'medium of exchange'*** function of money. **6**

OR

b. ***"The process of credit creation by commercial banks comes to an end when the total of required reserves become equal to the initial deposits".***
With the help of numerical example prove that the given statement is true.

17. **Read the following case study carefully and answer the questions on the basis of the same:**

Industrial licensing, which was earlier applicable for all industries except a defined list, was now abolished for all but a handful of industries. This meant investment in new plants and capacity expansion in existing plants could now be undertaken for a very wide range of industries without any approval from the central government. Since the location of industries was previously specified in the license, the abolition of industrial licenses meant that location was left to investors to decide, setting the stage for different states to compete with each other to attract private investment. Earlier, the Monopolies and Restrictive Trade Practices (MRTP) Act provided that all investments by companies with total assets exceeding 1 billion needed special scrutiny to ensure that it would not increase concentration of economic power. These restrictions were abolished and the MRTP Act was to be used to check anticompetitive behaviour. Foreign Direct Investment (FDI) was earlier allowed only in a defined list of high

priority industries and each application needed to be cleared on a case-by-case basis, with foreign equity limited to 40%. FDI was now freely allowed up to 51% in this list and higher limits were considered on the merits of each case. The government also announced that it would seek foreign investment pro-actively in areas where it could make a major contribution.

Source: Montek S. Ahluwalia, India's Economic Reforms: Achievements and Next Steps, Asian Economic Policy Review, 2018.

a. What was the primary objective of the Monopolies and Restrictive Trade Practices (MRTP) Act? **2**
b. Liberalization of the economy lead to a shift in the approach towards management of the economy. Discuss. **2**
c. State some trade and investment policy related reforms that were initiated in 1991. **2**

****

Name: _____ Sec: _____Roll No.: _____

CODE-B

BURNPUR RIVERSIDE SCHOOL, BURNPUR
PERIODIC TEST-1: (2026-2027)
ECONOMICS (030)
CLASS: XII

Time: 1½ Hrs. **Maximum Marks: 40**

==========

General Instructions:

1) This paper contains 10 Multiple Choice Questions type questions of 1mark each.

2) This paper contains 2 Short Answer Questions type questions of 3 marks each to be answered in 60 to 80 words.

4) This paper contains 3 Short Answer Questions type questions of 4 marks is to be answered in 80 to 100 words

5) This paper contains 1 Long Answer Questions type questions and 1 case based question of 6 marks each to be answered in 100 to 150 words.

6) All questions are compulsory.

==========

1. Which of the following is a macroeconomic variable? **1**

a. National Income
b. Consumption expenditure in the economy
c. Investment expenditure in the economy
d. All of these

2. Which of the following was the main feature of Indian economy on the eve of independence? **1**

a. Semi feudal economy
b. Urbanised economy
c. Industrial economy
d. All of these

3. Read the following statements carefully. **1**

Statement 1: Depreciation reserve fund helps to maintain the existing stock of capital.

Statement 2: Unexpected obsolence occurs owing to change in demand in the market.

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

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

Assertion(A)- India's Green Revolution is an example of how the productivity of scarce land resources can be increased with improved production technology.

Reason(R)- Because of the use of old technology and inadequate infrastructure, the productivity in agricultural sector was very low.

Alternatives:

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

5. ***The Reserve Bank of India (RBI) recently hiked the repo rate by 35 bps, the fifth such increase in 2022. The repo rate currently stands at 6.25 per cent. The first time RBI hiked the repo rate was in May when the central bank's rate setting panel unanimously hiked the benchmark lending rate by 40 bps. This was followed by an increase of 50 bps each in June, August and September. In total, the RBI has hiked the rate by 190 bps.*** **1**

The above news is an action that has been taken to deal with which of the following situations in the economy?

a. Inflationary gap
b. Deflationary gap
c. Economic recession
d. All of the above

6. From the set of statements given in Column I and Column II choose the correct pair of statements:- **1**

Column I	**Column II**
A. Demonetization	i. An event of 2016
B. Privatisation	ii. Out right sale of the private enterprises
C. Trade and investment policy reforms	iii. Increase in tariff rates
D. Financial sector reforms	iv. Freedom to import capital goods

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

7. A commercial bank is that financial institution:- **1**

Alternatives:
a. Which only accepts deposits from the people
b. Which only offers loans to the people
c. Which accepts deposits from the people as well as offers loans to them
d. Which only deals in foreign exchange transactions

8. Liberalization implies:- **1**
a. Reduction in Government's control over economy
b. Encouragement to public sector
c. Nationalisation
d. None of these

9. 1

Year	Output(units)	Market Price(₹)
2024	150	10
2025	200	20

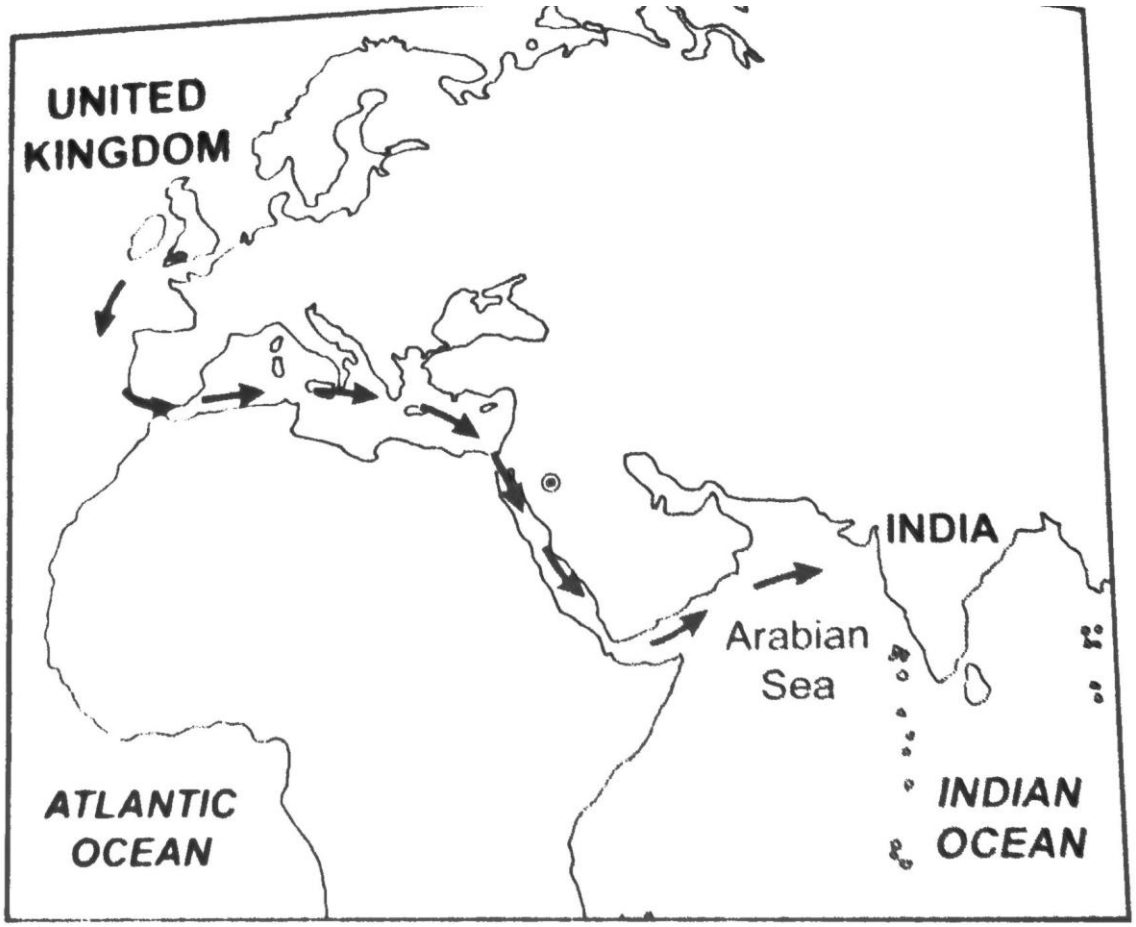
On the basis of the above mentioned information answer the following question :-

Calculate the value of Nominal GDP for the year 2025

Alternatives:

a. ₹1500
b. ₹2000
c. ₹3000
d. ₹4000

10. 1



On the basis of the given map answer the following question:-
Why was the Suez Canal significant for India's foreign trade during the colonial period?

a. If further intensified British control on India's foreign trade
b. It increased internal trade in India
c. It helped India's trade more with Africa
d. It isolated India from global markets.

11. ***"The real motive behind infrastructural development under the British rule was not to provide basic amenities to the people of India but to subserve various colonial interests".*** **3**
Do you agree with the given statement? Give valid reasons in support of your answer.

12.a. State the meaning and components of M1 measure of money supply. **3**

OR

b. Elaborate upon the ***'Lender of the Last Resort'*** function performed by the Reserve Bank of India.

13. Briefly, explain the interdependence between microeconomics and macroeconomics. **4**

14. ***"The goal of equity was served by 'Abolition of Intermediaries' in agriculture in the post independent period".*** **4**
Do you agree with the given statement? Support your answer with valid to explanation.

15. The Indian economy was an agro based economy on the eve of independence. 75% of the Indian population was earning a livelihood from agriculture. Despite being a primary source of income for a major population, this sector faced a decline under the British rule. In this context, how was the zamindari system of land settlement responsible for the stagnation of Indian agriculture? **4**

16.a. What is money multiplier? What determines the value of this multiplier? **6**

OR

b. Explain how '***Repo Rate'*** can we helpful in controlling credit creation.

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

Developed countries have been trying to pursue developing countries to liberalise the trade and allow more flexibility in business policies to provide equal opportunities to multinational firms in their domestic market. International Monetary Fund (IMF) and World Bank helped them in this endeavour. Liberalisation began to hold its foot on barren lands of developing countries like India by means of reduction in excise duties on electronic goods in a fixed time frame. Indian government did the same and liberalised the trade and investment due to the pressure from World Trade Organisation. Import duties were cut down phase-wise to allow MNC's operate in India on equality basis. As a result, Globalisation has brought to India new technologies, new products and also the economic opportunities.

a. Why was Indian economy liberalized in 1991? **2**
b. Trade liberalization benefits developed countries more than developing economies. Justify. **2**
c. State two objectives of International Monetary Fund (IMF). **2**

****

Name:_____ Sec:_____ Roll No:_____

CODE -A

BURNPUR RIVERSIDE SCHOOL,BURNPUR
PERIODIC TEST 1 : [2026-2027]
ENGLISH CORE
CLASS : XII

Time Allowed : 1 ½ Hours **Maximum Marks : 40**

==========

GENERAL INSTRUCTIONS:

1. *The question paper contains Writing Skills & Literature sections.*
2. *All questions are compulsory.*
3. *Instructions are given with each question, wherever necessary.*
4. *Attempt all questions based on specific instructions for each part.*
5. *Adhere to prescribed word limit while answering the questions.*

==========

1. Read the poem extract and answer the questions that follow: 1x3

A thing of beauty is a joy forever
Its loveliness increases, it will never
Pass into nothingness; but will keep
A bower quiet for us, and a sleep
Full of sweet dreams, and health, and quiet breathing

i. Choose the option that displays the same poetic device as used in the first line of the extract.

a. I'm as happy as I can be
b. Life is a roller coaster ride
c. The flowers danced in the gentle breeze
d. The dazzling divas enchanted all

ii. What does the phrase 'a bower quiet' indicate?

iii. According to the extract, what benefits does a thing of beauty include?

2. Read the prose extract and answer the questions that follow: 1x3

Then all effort ceased. I relaxed. Even my legs felt limp; and a blackness swept over my brain. It wiped out fear; it wiped out terror. There was no more panic. It was quiet and peaceful. Nothing to be afraid of. This is nice … to be drowsy … to go to sleep … no need to jump … too tired to jump … it's nice to be carried gently … to float along in space … tender arms around me … tender arms like Mother's … now I must go to sleep … I crossed to oblivion, and the curtain of life fell.

i. The 'curtain of life fell' corresponds to an aspect of …….

a. geometry
b. history
c. sports
d. drama

ii. Identify a phrase from the extract which indicates that the author lost consciousness.

iii. Complete the following using ONE word only.

The author has compared losing consciousness in the pool to falling …….. .

3. Read the prose extract and answer the questions that follow: 1x4

"All those who are born will one day have to die. We don't need your predictions to know that. There would be some sense in it if you could tell us the manner of that death."

i. Who is the speaker of the above lines?

a. Chief Astrologer
b. Tiger King
c. Dewan
d. British Officer

ii. Which of the following is NOT a synonym of the word 'prediction'?

a. forecast
b. foretell
c. relate
d. prognosticate

iii. How old was the speaker when he spoke the above lines?

iv. To whom are the above lines addressed?

4. Answer the following questions in 40-50 words each. 5x2

(a) In the last line of the poem 'My Mother at Sixty-Six' why does the poet use the word 'smile' repeatedly?

(b) What are the different kinds of wars mentioned in the poem 'Keeping Quiet'? What is the poet's attitude towards these wars?

(c) Why did the elders of the village attend the last lesson?

(d) For Saheb, how was working at the tea stall different from rag picking?

(e) Does Charley agree that his stamp collecting habit is a way of escapism? Why?

5. Answer the following questions in 120-150 words each. (ANY TWO) 5x2

(a) Compare and contrast how 'Lost Spring' exposes social injustice through the harsh reality of poverty while 'Keeping Quiet' advocates for a 'moment of silence' to address social and environmental issues.

(b) Imagine you are Franz. After returning home from your final French lesson with M. Hamel, you sit in your room, staring at the new copies written in beautiful round hand 'France, Alsace, France, Alsace.'
Write a diary entry expressing your whirlwind of emotions.

(c) Attempt a character sketch of the Tiger King.

6. Your school is organizing a career counselling session for students of classes XI and XII to help them make informed decision about their future career choices. As the Head Girl / Head Boy of Doon School, draft a notice informing them about the session. Include all necessary details. You are Kavya / Karan. **4**

7. With a significant increase in the number of cars and less parking space, there is a concern about daily parking problems in residential colonies. Write a letter to the Editor of a local daily highlighting difficulties faced by residents because of this issue. Emphasize on resulting problems and suggest solutions. Draft the letter using your own ideas along with the cues given. You are Arushi / Arun. **6**

- traffic congestion due to narrowing of roads
- access to home blocked
- incidents of road rage over parking space
- create regular parking zones
- impose penalty on rule breakers

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Name:_____Sec:_____ Roll No:____

CODE - B

BURNPUR RIVERSIDE SCHOOL ,BURNPUR

PERIODIC TEST – I [2026-27]

ENGLISH

Class – XII

Time: 1 ½ Hours **Maximum Marks: 40**

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GENERAL INSTRUCTIONS:

1) The question paper contains Writing Skills & Literature sections.
2) All questions are compulsory.
3) Instructions are given with each question, wherever necessary.
4) Attempt all questions based on specific instructions for each part.
5) *Adhere to prescribed word limit while answering the questions.*

==========

1. **Read the extract given below and answer the questions that follow:** 1X 3

Of all the unhealthy and o'er-darkened ways

Made for our searching: yes, in spite of all,

Some shape of beauty moves away the pall

From our dark spirits.

(a) What does '*Made for our searching*' signify?

i. Despondence and gloom exist for us.

ii. We are continually searching for beauty.

iii. Unhappiness and gloom search for us.

iv. We search for happiness, but in vain.

(b) How does beauty affect the saddened spirit?

(c) What does the poet mean when he asserts – "*yes, in spite of all"?*

2. **Read the extract given below and answer the questions that follow:** 1X 3

With that he picked me up and tossed me into the deep end. I landed in a sitting position, swallowed water, and went at once to the bottom. I was frightened, but not yet frightened out of my wits. On the way down I planned…

(a) The statement, *"I was frightened, but not yet frightened out of my wits,"* expresses the narrator's _____. (confidence / boldness) **(Complete the statement)**

(b) Which incident has been referred to over here?

(c) *'On the way down I planned…'* What was the plan?

3. **Read the extract given below and answer the questions that follow:** 1X 4

Everyone stood transfixed in stupefaction. They looked wildly at each other and blinked.

''O wise prophets! It was I who spoke.''

This time there were no grounds for doubt. It was the infant born just ten days ago who had enunciated the words so clearly

(a) '*They looked wildly at each other and blinked…*' explains their _____.

i. bewilderment.
ii. ferocity.
iii. helplessness.
iv. All of the above

(b) _____ are referred to as "*O wise prophets*."

i. The courtiers
ii. The guards.
iii. The astrologers
iv. The Gods.

(c) What compelled everyone to stand in stupefaction?

(d) List a character trait of the infant as is evinced from the passage.

4. **Attempt the following questions in 40-50 words each.** 2 X 5

(a) What is the significance of the parting words of the poet and her smile in '*My Mother at Sixty-six'*?

(b) "*What I want should not be confused…*" What should not be confused? (*Keeping Quiet*)

(c) What does Franz mean when he says: "*Will they make them sing in German, even the pigeons*"?

(d) What does Saheb do for living? Why? (*Lost Spring*)

(e) How did *'The World'* help Charley to confirm his doubts regarding the existence of a third level?

5. **Attempt *ANY 02* of the following questions in 120-150 words:** 5 X 2

(a) Both *Keeping quiet* and *Lost Spring* speak of the decay in personal life and society respectively. Yet, the texts end with a note of positivity as the poet / characters attempt a way out. Discuss the relevance of the statement with reference to the given texts.

(b) M. Hamel, now aged and old, fondly remembers his last French class as a teacher he had delivered to the students of Alsace and Lorraine. He chooses to pen the roller-coaster of emotions he had undergone that day. As the teacher, attempt a diary entry. (*The Last lesson*)

(c) How would you describe the behaviour of the Maharaja‟s minions towards him? Do you find them truly sincere towards him or are they driven by fear when they obey him? (*The Tiger King*)

6. You are the Physical Education Instructor of Happy Learning School, Krishnanagar. Draft a **notice** in about 50 words inviting participation from students for the Summer Camp to be held in your school between 16 and 22 May, 2026. Invent relevant details. 4

7. You are Sumit / Ridhima, a student of Class XII, Indus Valley World School. You see and feel that students are required to cope up with a lot of stress in today's competitive environment. Write a letter to the editor of The Telegraph highlighting the increasing stress faced by students and suggesting ways and means to combat against it for successful living. (*120-150 words*) 6

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Name:_____Sec:_____ Roll No:_____

CODE: A

BURNPUR RIVERSIDE SCHOOL, BURNPUR
PERIODIC TEST-1[2026-27]
GEOGRAPHY
CLASS-XII

Time Allowed : 1 ½ Hours **Maximum Marks : 40**

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SECTION A

1. Which one of the following statements does not describe Geography? 1
   a. An integrative discipline.
   b. Study of the interrelationship between humans and environment.
   c. Subjected to dualism.
   d. Not relevant in the present time due to the development of technology.
2. Which one of the following features is related to the second stage of Demographic Transition Theory? 1
   a. Fertility and mortality decline considerably.
   b. Decline in mortality but fertility remains high.
   c. Fertility and mortality are high.
   d. Fertility declines and mortality remains high.
3. Which of the following are the key aspects of human development? 1

   a. Health.
   b. Education.
   c. Police.
   d. Access to resources.
   e. Government.

   1) a, b , c & e. 2)b, c & d. 3)a, b & d. 4)a, b, c & d.

4. Which one of the following is not a push factor? 1

a. Water shortage.
b. Medical or educational facilities.
c. Unemployment.
d. Epidemics.

5. In the question given below are two statements labeled as Assertion (A) and other labeled as Reason (R). Which one of the following is correct? 1

Codes

(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.

Assertion(A): Socio-economic factors affect the distribution of population in India.

Reason(R)Climate is one of the important socio-economic factors.

6. Which one of the following pairs is correctly matched? 1

a. Satellite town-Panchmarhi.
b. Tourist town-Ujjain.
c. Industrial town-Hugli.
d. Cultural town-Ghaziabad.

7. Choose the correct pair? 1

a. State having the highest density of population -West Bengal.
b. State having the highest literacy rate -Kerala.
c. State having the highest percentage of urban population -Punjab.
d. State having the highest percentage of rural population -Goa.

8. Which of the following statements correctly describes a marginal worker? 1

a) A person who works for at least 183 days in a year.
b) A person who works for at least 266 days in a year.
c) A person who works for less than 183 days in a year.
d) A person who works for less than 92 days in a year.

9. Read the case study given below and answer the questions that follow: 3

Winters in the town of Trondheim mean fierce winds and heavy snow. The skies are dark for months. Kari drives to work in the dark at 8:00 AM. She has special tyres for the winter and keeps headlights of her powerful car switched on. The temperature is controlled carefully and there is adequate lighting even though fresh vegetables and plants don't grow in such harsh weather. Kari keeps an orchid on her desk and enjoys eating tropical fruits like banana and kiwi. These are flown in from warmer areas regularly. With a click of a mouse Kari can network with colleagues in New Delhi. She frequently takes a morning flight to London and returns in the evening in time to watch her favorite television serial. Though Kari is 58 years old she is fitter and looks younger than many 3 year olds in other parts of the world.

i)Which of the following describes the weather of Trondheim in winters correctly?

a) Sunny weather. b) Snowy and stormy weather.

c) Cool and windy weather. d) Moderate weather.

ii) The life of Kari describes which of the following approaches of human geography?

a) Environmental determinism.
b) Possibilism
c) Neo Determinism
d) Regional analysis

iii) Which of the following event of Kari's life depicts the idea of possibilism?

a) Special tyres for winters
b) Import of tropical fruits from warmer areas
c) Networking with colleagues in Delhi.
d) All the above

10. Read the following passage and answer the questions that follow: 3

Land according to its ownership can broadly be classified under two broad heads: Private land and Common Property Resources (CPR'S). While the former is owned by an individual or a group of individuals, the latter is owned by the state meant for the use of the community. CPR'S provide fodder for the livestock and fuel for the households along with other minor forest products like fruits and nuts, fiber,medical plants etc. In rural areas such land is of particular relevance for the livelihood of the landless and marginal farmers and other weaker sections, since many of them depend on income from their livestock due to the fact that they have been limited access to land. CPR'S also are important for women as most of the fodder and fuel collection is done by them in rural areas .They have to devote long hours in the collection of fuel and fodder from a degraded area of CPR. CPR can be defined as communities natural resource where every member has a right of access and usage with specified obligations without anybody having property rights over them. Community forests, pasture lands, village water bodies and other public spaces where a large group are larger than A four household or family unit exercises right of use carries responsibility of

management are example of CPRS.

i)What is the most important feature of common property resources?

a)It is owned by women.

b)Every member has access to these resources.

c)It is controlled by the government.

d)None of the above.

ii)Which of the following is a common property resource?

a)Pasture land b)Village wells c)Public parks d)All of these.

iii)Common Property Resources are found in which of the following areas?

a)Rural areas b)Urban areas c)Semi urban areas d)Metropolitan areas.

11. Explain three economic factors that influence the population distribution of the world? 3

12. Discuss the status of adolescent population in India? 3

13. What is Human Development? Analyse the four pillars of Human Development? 5

14. Differentiate between Nomadic Herding and Commercial Livestock Rearing? 5

OR

Discuss the important characteristics of Plantation agriculture. Name two plantation crops from different countries.

15. Enlist the salient features of urban settlements in India? 5

OR

What are functional towns ?Explain in brief the five categories of towns based on their function. Also name the towns.

16. What are the important strategies for agricultural development followed in the post independence period in India? 3+2

OR

Write three points to explain how the degradation of cultivable land is a serious problem in India?

Explain the importance of irrigation for agriculture in India?

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Name:_____Sec:_____ Roll No:_____

CODE -B

BURNPUR RIVERSIDE SCHOOL,BURNPUR
PERIODIC TEST 1: [2026-2027]
GEOGRAPHY
Class: XII

TimeAllowed-1 ½ Hours **Maximum Marks-40**

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General Instructions:

i. **Question number 1 to 08 are MCQ type questions.**
ii. **Question 09 and 10 are Source based questions.**
iii. **Question number 11-12 are Short Answer type questions (80-100 words).**
iv. **Question number 13 to 16 are Long Answer based questions (120-150 words).**

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SECTION-A

1 **Consider the following statements and choose the type of approach in human geography from the given options.** 1

Statement I- This approach was developed during the later Colonial period.
Statement II- Elaborates description of all aspects of a region.
Statement III- The idea was that all the regions were part of a whole, so understanding the parts in totality would lead to an understanding of the whole.

A. Exploration and description
B. Regional analysis
C. Areal differentiation
D. Spatial organisation

2 **Which of the following statement is incorrect?** 1

A. Migrants who move into a new place are called Immigrants.
B. The pull factors make the place of destination seem less attractive.
C. Migration may be permanent, temporary or seasonal.
D. Migrants who move out of a place are called Emigrants.

3 **Match the following policies with the pillar of human development they reflect:** 1

Policies/Initiatives	**Pillar of Human Development**
1. Equal access to education for girls and boys	a. Sustainability
2. Availability of resources for future generations	b. Equity
3. Encouraging participation in local governance	c. Productivity
4. Skill development programs for higher efficiency	d. Empowerment

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

4 **Choose the correct option** 1

The actual growth of population is

A. Births – Deaths
B. In Migration – Out Migration
C. Births – Deaths + In Migration – Out Migration
D. Deaths - Births

5 **There are two statements marked as Assertion (A) and Reason (R). Mark your answer as per the codes provided below.** 1

Assertion (A)- The number of female workers in India is relatively high in primary sector.

Reason (R)- Growth of population is the change in the number of people living in a particular area between two points of time.

Options

A. Both (A) and (R) are true but (R) is not the correct explanation of (A)
B. Both (A) and (R) are true and (R) is the correct explanation of (A)
C. (A) is true and (R) is false
D. (A) is false and (R) is true

6 **Match the following type of cities/towns with the examples:** 1

Type of cities/towns	**Examples**
1 Educational town	a Digboi
2 Tourist town	b New Delhi
3 Administrative town	c Mussoorie
4 Mining town	d Roorki

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

7 **Consider the following statements and choose the phase of population growth identified in India over the last one century from the given options.** 1

Statement I- This period is referred to as the period of population explosion in India, which was caused by a rapid fall in the mortality rate but a high fertility rate of population in the country.

Statement II- The average annual growth rate was as high as 2.2 per cent.

Statement III- It is in this period that developmental activities were introduced through a centralized planning process and economy started showing up ensuring the improvement of living condition of people at large. Consequently, there was a high natural increase and higher growth rate.

A. Phase I 1901-1921
B. Phase II 1921-1951
C. Phase III 1951-1981
D. Phase IV post 1981 till present

8 The percentage decadal growth rate of India's population declined significantly between 1991-2001 and 2001-2011. If a policymaker wants to maintain a steady growth rate, which of the following strategies would be most effective? 1

A. Encourage higher birth rates to boost population growth.
B. Focus on reducing investment in healthcare.
C. Implement policies to encourage rural-to-urban migration.
D. Promote balanced population growth through family planning and education initiatives.

SECTION-B

9 **Read the given passage carefully and answer the questions that follow:**

The concept of neo determinism was put forward by Griffith Taylor in 1920. The concept shows that neither is there a situation of absolute necessity (environmental determinism) nor is there a condition of absolute freedom (possibilism). It means that human beings can conquer nature by obeying it. They have to respond to the red signals and can proceed in their pursuits of development when nature permits the modifications. It means that possibilities can be created within the limits which do not damage the environment and there is no free run without accidents. The free run which the developed economies attempted to take has already resulted in the greenhouse effect, ozone layer depletion, global warming, receding glaciers and degrading lands.

i. Who proposed the concept of neo-determinism? 1

ii. How did Taylor view the relationship between nature and a country's economic progress? 1

iii. Why neo determinism has become quite relevant in the present day context? 1

10 **Read the given passage carefully and answer the questions that follow:**

New seed varieties of wheat (Mexico) and rice (Philippines) known as high yielding varieties (HYVs) were available for cultivation by mid-1960s. India took advantage of this and introduced package technology comprising HYVs, along with chemical fertilisers in irrigated areas of Punjab, Haryana, Western Uttar Pradesh, Andhra

Pradesh and Gujarat. Assured supply of soil moisture through irrigation was a basic pre-requisite for the success of this new agricultural technology. This strategy of agricultural development paid dividends instantly and increased the foodgrains production at very fast rate. This spurt of agricultural growth came to be known as 'Green Revolution'. This also gave fillip to the development of a large number of agro-inputs, agro-processing industries and small-scale industries. This strategy of agricultural development made the country self-reliant in foodgrain production. But Green Revolution was initially confined to irrigated areas only. This led to regional disparities in agricultural development in the country till 1970s, after which the technology spread to the Eastern and Central parts of the country.

i. What do you mean by Green Revolution? 1

ii. Evaluate one negative impact of the Green Revolution. 1

iii. Identify two inputs that lead to the success of green revolution. 1

SECTION-C

11 Explain with examples the geographical factors which affect population distribution. 3

12 How gender sensitivity is promoted through social campaign? Explain with an example. 3

SECTION-D

13 What do you understand by the term human development? Explain the four important approaches of human development. 5

14 Discuss the important characteristic features of plantation agriculture. Name a few important plantation crops from different countries**.** 5

OR

How does food gathering as an economic activity differ between primitive and modern societies, and why is it unlikely to significantly influence the global economy today?

15 How urban settlements are different from rural settlements? What is the main objective of the Smart Cities Mission? 5

OR

What are rural settlements? Classify rural settlements and explain them.

16 Analyse any five problems faced by Indian farmers in agriculture. 5

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Name:_____ Sec:_____ Roll No:_____

CODE:A

BURNPUR RIVERSIDE SCHOOL, BURNPUR
HALF YEARLY EXAMINATION : [2026-2027]
GENERAL STUDIES
Class: XII

Time: 1 Hr. **Maximum Marks : 50**

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Choose the correct answer from the options given below.

Questions 1-30 carries 1 mark each and questions 31-40 carries 2 marks each.

1 Which gas do plants primarily absorb from the atmosphere for photosynthesis?

A. Nitrogen
B. Hydrogen
C. Carbon Dioxide
D. Oxygen

2 Which of these companies owns the search engine 'Google'?

A. Amazon
B. Microsoft
C. Meta
D. Alphabet Inc.

3 The 'Dandi March' led by Mahatma Gandhi was a protest against which tax?

A. Income Tax
B. Cotton Tax
C. Salt Tax
D. Land Tax

4 What does the 'CPU' stand for in computer science?

A. Central Processing Unit
B. Core Peripheral Unit
C. Central Program Unit
D. Computer Processing Unit

5 Who is the author of the 'Harry Potter' book series?

A. J. K. Rowling
B. Ruskin Bond
C. Roald Dahl
D. William Shakespeare

6 Which of these is the smallest continent by land area?

A. Antarctica
B. South America
C. Europe
D. Australia

7 Which of these is used in pencils?

A. Silicon
B. Graphite
C. Phosphorus
D. Charcoal

8 Who is known as the 'Iron Man of India'?

A. Bhagat Singh
B. Netaji Subhas Chandra Bose
C. Bal Gangadhar Tilak
D. Sardar Vallabhbhai Patel

9 In the context of the Indian Constitution, which 'Schedule' contains the list of official languages recognized by the Republic of India?

A. 8th Schedule
B. 7th Schedule
C. 10th Schedule
D. 9th Schedule

10 Which layer of the Earth's atmosphere contains the Ozone Layer that protects us from harmful UV radiation?

A. Exosphere
B. Stratosphere
C. Troposphere
D. Mesosphere

11 The 'Silvassa' is the capital of which Union Territory (now merged)?

A. Dadra and Nagar Haveli
B. Andaman and Nicobar Islands
C. Lakshadweep
D. Puducherry

12 The 'Golden Quadrilateral' is a national highway network connecting which four major Indian cities?

A. Delhi – Jaipur – Mumbai – Ahmedabad
B. Ahmedabad – Pune – Chennai – Lucknow
C. Delhi – Kolkata – Chennai – Mumbai
D. Delhi – Mumbai – Bengaluru – Hyderabad

13 Which Indian city is famously known as the 'Silicon Valley of India'?

A. Hyderabad
B. Pune
C. Bengaluru

D. Gurugram

14 Which fundamental right was described by Dr. B.R. Ambedkar as the 'Heart and Soul of the Constitution'?

A. Right to Constitutional Remedies
B. Right to Equality
C. Right against Exploitation
D. Right to Freedom of Speech

15 Which of the following is considered the first 'Talkie' (film with sound) in Indian cinema?

A. Kisan Kanya
B. Raja Harishchandra
C. Shree 420
D. Alam Ara

16 What is the name of the operation launched by India to evacuate its citizens from war-torn Ukraine in 2022?

A. Operation Raahat
B. Operation Devi Shakti
C. Operation Vande Bharat
D. Operation Ganga

17 Which multinational conglomerate owns the luxury brands Louis Vuitton, Dior, and Givenchy?

A. Richemont
B. LVMH
C. Kering
D. Hermes

18 In the game of Chess, which piece is the only one that can 'jump' over other pieces?

A. Rook
B. Bishop
C. Knight
D. Queen

19 Which constitutional amendment in India is often referred to as the 'Mini-Constitution'?

A. 1st Amendment
B. 73rd Amendment
C. 44th Amendment
D. 42nd Amendment

20 The 'Dakshin Gangotri' was India's first permanent station in which location?

A. Antarctica
B. The Indian Ocean Floor
C. The Andaman Islands
D. The Himalayas

21 The average adult human body contains approximately how many liters of blood?

A. 5 to 6 litres
B. 10 to 12 litres
C. 2 to 3 litres
D. 1 to 2 litres

22 What is the traditional Awadhi cooking method that involves cooking food slowly over a low flame in a sealed container (called a *handi* or *degh*) to trap the aroma and steam?

A. Tandoor
B. Dum Pukht
C. Bhuna
D. Tarka (or Chaunk

23 Complete the following proverb: 'Don't count your chickens before they_____.'

A. eat
B. hatch
C. are grown
D. fly

24 The three-pointed star logo of Mercedes-Benz is meant to symbolize the company's ambition to dominate which three elements of transport?

A. Past, Present, and Future
B. Land, Sea and Air
C. Europe, Asia, and America
D. Speed, Power, and Luxury

25 Which iconic yellow and red fast-food mascot was created in the 1960s to primarily appeal to children?

A. Colonel Harland Sanders (KFC)
B. The Burger King
C. Wendy's Girl
D. Ronald McDonald (McDonald's)

26 The practice of 'Jugaad,' deeply rooted in Indian culture, can be best defined as:

A. A system of traditional storytelling and epic recitation
B. A collaborative community effort for building infrastructure
C. An innovative, frugal, and flexible approach to problem-solving using limited resources
D. A rigorous spiritual and physical discipline involving complex postures

27 The term 'Monsoon' in the context of the Indian subcontinent primarily refers to:

A. The strong seasonal wind and rainfall system that dictates the region's climate
B. A specific type of subtropical evergreen forest found in the foothills
C. A period of strong, localized dust storms in the summer
D. The annual harvest festival celebrated in the spring

28 “Nihari”, a spicy slow-cooked stew, is one of Lucknow's most celebrated dishes. Traditionally, when is “Nihari” eaten?

A. During the main course of dinner
B. As an afternoon snack with chai
C. As a royal breakfast
D. Only during religious festivals

29 In the novel Anandamath, 'Vande Mataram' serves as the anthem for which group?

A. Sanyasis (Ascetics)
B. Peasants
C. Sepoys (Indian Soldiers)
D. Zamindars (Landlords)

30 In what language did Julius Caesar deliver the triumphal declaration, 'Veni, vidi, vici'?

A. Latin
B. Ancient Egyptian
C. Greek
D. Italian

31 In which year BRS, Burnpur will celebrate its Golden Jubilee?

A. 2026
B. 2027
C. 2028
D. 2029

32 Visiting hours to meet Principal/VP/Coordinator is

A. 7.30 a.m. – 8.30 a.m.
B. 10.30 a.m. – 11.30 a.m.
C. 8.30 a.m. – 9.30 a.m.
D. 9.00 a.m. – 10.00 a.m.

33 ‘A heaven of joy, a world so fair’ is

A. The School Anthem
B. The School Motto
C. The School Philosophy
D. The School Song

34 The word ‘unison’ in the school anthem means

A. Togetherness
B. Rhyme
C. Pacify

D. Light

35 The official email of BRS is

A. brsburnpur@gmail.com
B. brsburnpur@yahoo.com
C. brsburdwan@gmail.com
D. dgp_pribrsburnpur@gmail.com

36 What of the almanac does not change with the change of sessions?

A. Calendar
B. List of Holidays
C. Activity Calendar
D. "Our School" note

37 "To value and preserve the rich heritage of our composite culture" is a

A. Fundamental Value
B. Fundamental Duty
C. Core Duty
D. Fundamental Principle

38 What are open days?

A. Free discussion days
B. Picnic days
C. Days when evaluated answer books are shown
D. PTMs

39 World Environment Day is celebrated on _____.

A. 5th June
B. 5th July
C. 10th June
D. 10th July

40 “I slept and dreamt that life was joy. I awoke and saw that life was service. I acted and behold, service was joy.” is a quote by

A. Rabindranath Tagore
B. Sri Aurobindo
C. Swami Vivekananda
D. Mother Teresa

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Name:_____Sec:_____ Roll No:_____

CODE:B

BURNPUR RIVERSIDE SCHOOL, BURNPUR

HALF YEARLY EXAMINATION [2026-27]

GENERAL STUDIES

CLASS XII

TIME - 1 HOUR **Maximum Marks : 50**

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GENERAL INSTRUCTIONS –

Answer the following by choosing the correct option from the alternatives given below:

Q. Nos. 1 – 30 (1 Mark each)

Q. Nos. 31 – 40 (2 Marks each)

1. Which article of the Indian Constitution is known as the "Heart and Soul" of the Constitution?
   a) Article 14
   b) Article 19
   c) Article 21
   d) Article 32
2. Which of these autobiographies is titled "*The Test of My Life*"?
   a) Sachin Tendulkar
   b) Yuvraj Singh
   c) MS Dhoni
   d) Virat Kohli
3. The preamble to the Indian Constitution borrows the ideals of 'Liberty, Equality, and Fraternity' from which country's constitution?
   a) United States
   b) France
   c) United Kingdom
   d) USSR

4. Which amendment to the Indian Constitution added the words "Socialist" and "Secular" to the Preamble?
    a) 24th Amendment
    b) 42nd Amendment
    c) 44th Amendment
    d) 86th Amendment
5. The largest public sector undertaking in the country is _____.
    a) Indian Railways
    b) Oil and Natural Gas Corporation
    c) Power Grid Corporation of India
    d) Steel Authority of India Limited
6. Which company's operating system has an interface named "One UI"?
    a) Apple
    b) Xiaomi
    c) Motorola
    d) Samsung
7. Which ancient Indian text is a conversation between Arjuna and Krishna?
    a) The Ramayana
    b) Rig Veda
    c) The Bhagavad Gita
    d) Arthashastra
8. Who was the Viceroy of India when the Partition of Bengal took place in 1905?
    a) Lord Dalhousie
    b) Lord Curzon
    c) Lord Minto
    d) Lord Irwin
9. Sustainable development emphasizes balancing economic growth with:
    a) Rapid exploitation of natural resources
    b) Environmental protection and social equity
    c) Maximizing short-term industrial profits
    d) Complete reliance on non-renewable energy

10. Which is the only country whose postage stamps do not feature the name of the country issuing them?
    a) Russia
    b) Great Britain
    c) Iceland
    d) USA
11. The famous classical dance form 'Kathakali', known for its heavy makeup, elaborate costumes, and dramatic expressions, originated in which Indian state?
    a) Tamil Nadu
    b) Kerala
    c) Andhra Pradesh
    d) Karnataka
12. Which of these values in Roman numerals denotes the number 30?
    a) LLL
    b) DDD
    c) XXX
    d) CCC
13. *Padma Shri* awardees Tarla Dalai and Sanjeev Kapoor are known for their achievements in which of these fields?
    a) Acting
    b) Dancing
    c) Singing
    d) Culinary Art
14. Which historical event began with the storming of the Bastille in 1789?
    a) American Revolution
    b) Russian Revolution
    c) French Revolution
    d) Industrial Revolution
15. Which natural phenomenon is measured using the Richter Scale?
    a) Wind velocity of a cyclone
    b) Intensity of volcanic eruptions
    c) Magnitude of an earthquake
    d) Atmospheric pressure changes

16. Which of these countries has a tradition of holding television debates between the main candidates in a presidential election?
    a) Russia
    b) France
    c) USA
    d) UK
17. How many players of a Kho-Kho team can play on the field during the match?
    a) 10
    b) 9
    c) 7
    d) 8
18. Which artificial waterway, opened in 1869, connects the Mediterranean Sea directly to the Red Sea, cutting maritime trade routes between Europe and Asia?
    a) Panama Canal
    b) Suez Canal
    c) Kiel Canal
    d) Corinth Canal
19. What is the term used for shops that provide the buyer exemption from certain taxes?
    a) Care Free
    b) Duty free
    c) Job Free
    d) Rate Free
20. Which Chetan Bhagat book has the following dedication, "*For my Mother / For rural India / For the non-english types*"?
    a) One Indian Girl
    b) One Night at the Call Center
    c) Half Girlfriend
    d) d. Two States

21. What type of forest is characterized by trees that shed their leaves annually?
    a) Coniferous forest
    b) Deciduous forest
    c) Tropical rainforest
    d) Tundra
22. On the last day of his life Bhagat Singh was reading a book about the ideology of which revolutionary?
    a) Antonio Gramsci
    b) Che Guevera
    c) Leon Trotsky
    d) Vladimir Lenin
23. In the context of computer networking, what does the acronym "URL" stand for?
    a) Unified Resource Link
    b) Uniform Resource Locator
    c) Universal Recovery Log
    d) User Route Location
24. Which of these animals appears in the '*Make in India'* campaign?
    a) Elephant
    b) Bear
    c) Lion
    d) Yak
25. What is the active ingredient in a commercial fire extinguisher that works by displacing oxygen and cooling the fuel?
    a) Nitrogen gas
    b) Carbon Dioxide
    c) Methane gas
    d) Carbon Monoxide

26. Often used as a slogan, what is the meaning of the word '*Inquilab*'?
    a) Surrender
    b) Victory
    c) Revolution
    d) Long Life
27. Which element has the highest electrical conductivity of all metals?
    a) Copper
    b) Gold
    c) Aluminium
    d) Silver
28. Which of these banks was set up on 15 August 1907 as part of the *'Swadeshi Movement'*?
    a) Syndicate Bank
    b) Central Bank of India
    c) Punjab National Bank \
    d) Indian Bank
29. On which of these social media apps does one have the option of going live with video?
    a) Facebook
    b) Tinder
    c) Linkedin
    d) Whatsapp
30. Which artificial intelligence model, released by OpenAI, revolutionized conversational AI with its launch?
    a) Gemini
    b) Claude
    c) ChatGPT
    d) LLaMA
31. The school office hours are between:
    a) 8:00 a.m. – 10:30 a.m.
    b) 8:10 a.m. – 12:00 noon
    c) 7:30 a.m. – 1:2.0 p.m.
    d) 8:00 a.m. – 2:00 p.m.

32. The BRS website is:
    a) www.brsburnpur.com
    b) www.brsburdwan@gmail.com
    c) brsburnpur@gmail.com
    d) www.brsburnpur
33. What blessing is invoked in the school anthem?
    a) To sing in unison
    b) Win the enemy's heart
    c) Truth
    d) All of these
34. 'LIBERTY' in the Preamble to the Indian Constitution states the liberty of:
    a) Thought and belief
    b) Expression
    c) Faith and worship
    d) All of These
35. "*Students should never cheat or adopt unfair practices*" is a part of
    a) The school philosophy
    b) (B) The aim of B.R.S.
    c) What is Expected of the Students
    d) All of these
36. 'This is my prayer, to thee my Lord ...' is a prayer by:
    a) Rabindranath Tagore
    b) Rishi Aurobindo
    c) St. Francis of Assissi
    d) Helen Keller
37. Red card is a remedial measure for students:
    a) As a First Warning
    b) For coming Late To School
    c) For carelessness and Untidy Work in Academics
    d) For any Serious Offence

38. *Bhasha Diwas* is observed on:

a) 30th February
b) 20th February
c) 21st February
d) 15th July

39. 15 August is the birth day of:

a) Sardar Patel
b) Sukanta Bhattacharya
c) Indira Gandhi
d) Sri Aurobindo

40. *'The best thing to hold onto life is each other'* is a quote by:

a) Maya Angelou
b) Rishi Aurobindo
c) Audrey Hepburn
d) Oprah Winfrey

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Name: _____ Sec: ____ Roll No.: ____

CODE: A

BURNPUR RIVERSIDE SCHOOL, BURNPUR
INFORMATION TECHNOLOGY (802)
PERIODIC TEST-I : [2026-2027]
CLASS: XII

TIME: 1 ½ Hrs. **Maximum Marks: 40**

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General Instructions:

1. Please read the instructions carefully.
2. This Question Paper consists of **13 questions** in two sections – Section A & Section B.
3. Section A has Objective type questions whereas Section B contains Subjective type questions.
4. **All questions are compulsory.**
5. All questions of a particular section must be attempted in the correct order.
6. **SECTION A - OBJECTIVE TYPE QUESTIONS (20 MARKS):**
   - **i.** This section has 05 questions.
   - **ii.** There is no negative marking.
   - **iii.** Do as per the instructions given.
   - **iv.** Marks allotted are mentioned against each question/part.
7. **SECTION B – SUBJECTIVE TYPE QUESTIONS (20 MARKS):**
   - **i.** This section contains 08 questions.
   - **ii.** Do as per the instructions given.
   - **iii.** Marks allotted are mentioned against each question/part.

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SECTION A: OBJECTIVE TYPE QUESTIONS

1. **Answer the following 4 questions on Employability Skills (1 x 4 = 4 marks)**

i. Identify the type of sentence: 1
'Do not have junk foods.'
a. Declarative Sentences b. Interrogative sentences
c. Imperative Sentences d. none

ii. When women take initiative and do business they are called as ____. 1
a. Ladies Entrepreneurs b. Women Entrepreneurs
c. Girl Power Entrepreneurs d. none

iii. ____ means Entrepreneurs monitor that everything is carried out in their organisations as per their decisions but at the same time gives flexibility to the employees. 1
a. Effective Monitoring b. Adaptability
c. Assertiveness d. none

iv. Individuals, who focus on developing solutions that benefit the society, are called ____. 1
a. Social Entrepreneurs
b. Family Business Entrepreneurs
c. Professional Entrepreneurs
d. none

2. **Answer the following 4 questions on (1 x 4= 4 marks)**

i. What do you understand by 'Field' in a DBMS? 1

ii. What do you understand by the Cardinality of a relation? 1

iii. ____ action rejects the delete or update operation for the parent table. 1
a. CASCADE b. RESTRICT
c. SET NULL d. none

iv. ____ command is used to create a new table or relation. 1
a. NEW TABLE b. CREATE TABLE
c. ADD TABLE d. none

3. **Answer the following 4 questions on (1 x 4= 4 marks)**

i. ____ command is used to create a new database. 1

a. NEW DATABASE b. CREATE DATABASE

c. ADD DATABASE d. none

ii. ____ command is used to delete a table from a database. 1

a. DELETE TABLE b. REMOVE TABLE

c. DROP TABLE d. none

iii. ____ key constraint is used to establish a relationship between two tables. 1

iv. ____ is a constraint that specifies that primary key of a relation cannot have null value. 1

4. **Answer the following 4 questions on (1 x 4= 4 marks)**

i. State TRUE or FALSE: 1

"A Foreign key is used to represent the relationship between two tables."

ii. What do you understand by Self Join in MySQL? 1

iii. What is web-based application? 1

iv. Which of the following is a client-side script? 1

a. JavaScript b. HTML c. Both (a) & (b) d. none

5. **Answer the following 4 questions on (1 x 4= 4 marks)**

i. Which of the following are examples of online reservation systems? 1

a. Airline ticket b. Bus ticket c. both (a) & (b) d. none

ii. Which of the following is an email program? 1

a. Yahoo b. AOL c. Both (a) & (b) d. none

iii. Which of the following is a server-side script? 1

a. PHP b. ASP c. Both (a) & (b) d. none

iv. <u>Fill in the blank:</u> 1

DEITY stands for ____.

SECTION B: SUBJECTIVE TYPE QUESTIONS

Answer the following 3 questions on Employability Skills (2 x 3 = 06 marks)

6. Write down the four steps to Active Listening. 2
7. What is 'Resourcing'? 2
8. Who are Technical Entrepreneurs? 2

Answer the following 2 questions (2 x 2 = 04 marks)

9. The following commands are giving errors. Write the correct MySQL commands. 2
   (a) alter table student delete marks;
   (b) select * from employee where name ='%s%';
10. What are the two main disadvantages of using a DBMS. 2

Answer the following 2 questions (3 x 2 = 06 marks)

11. Consider the following TEACHER table and answer the questions (i) to (iii) given below. 3

T_Code	T_Name	Subject
16	A. Das	ENG
93	P. Roy	MATHS
22	M. Sen	IT
56	S. Khan	ECO

   i) What is the degree of the TEACHER relation.
   ii) What is the cardinality of the TEACHER relation.
   iii) Write down the Relation Schema of the TEACHER relation.

12. Why do we prefer online reservation? (Give 3 valid points) 3

Answer the following 1 question (4 x 1 = 4 marks)

13. Write SQL commands for the following on the basis of given table TEACHER from (i) to (iv) 4

TEACHER

T_ID	T_Name	Gender	Salary	Department
1121	R.Rathore	M	23000	English
1122	M.Sen	F	35000	Maths
1123	K.Singh	F	34000	Biology
1124	P.Banerjee	M	50000	Physics
1125	G.Ghosh	F	45000	Computer
1126	T.Mehta	M	33000	Chemistry
1127	P.Rodrick	M	25000	English
1128	K.Malhotra	F	52000	History
1129	I.Sinha	M	22000	Chemistry
1130	L.Fernandez	F	36000	Maths

(i) Write the details of the teachers in descending order of their salary.

(ii) Write the teacher id , name and gender of the teachers of maths department.

(iii) Write the names of female teachers only.

(iv) Write the names and salary of the teachers whose salary is between 20,000 and 40,000.

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Name: _____ Sec: ____ Roll No.: ____

CODE: B

BURNPUR RIVERSIDE SCHOOL, BURNPUR
INFORMATION TECHNOLOGY (802)
PERIODIC TEST-I :[2026-2027]
CLASS: XII

TIME: 1 ½ Hrs. **Maximum Marks: 40**

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General Instructions:

1. Please read the instructions carefully.
2. This Question Paper consists of **13 questions** in two sections – Section A & Section B.
3. Section A has Objective type questions whereas Section B contains Subjective type questions.
4. **All questions are compulsory.**
5. All questions of a particular section must be attempted in the correct order.
6. **SECTION A - OBJECTIVE TYPE QUESTIONS (20 MARKS):**
   - **i.** This section has 05 questions.
   - **ii.** There is no negative marking.
   - **iii.** Do as per the instructions given.
   - **iv.** Marks allotted are mentioned against each question/part.
7. **SECTION B – SUBJECTIVE TYPE QUESTIONS (20 MARKS):**
   - **i.** This section contains 08 questions.
   - **ii.** Do as per the instructions given.
   - **iii.** Marks allotted are mentioned against each question/part.

==========

SECTION A: OBJECTIVE TYPE QUESTIONS

1. **Answer the following 4 questions on Employability Skills (1 x 4 = 4 marks)**

i. Identify the type of sentence: 1
'I love driving cars.'
a. Declarative Sentences b. Interrogative sentences
c. Imperative Sentences d. none

ii. Individuals, who focus on developing solutions that benefit the society, are called ____. 1
a. Social Entrepreneurs
b. Family Business Entrepreneurs
c. Professional Entrepreneurs
d. none

iii. Agnimitra owns a construction company and takes risky decisions every day, with regard to her work. Agnimitra is an ____. 1
a. Entrepreneur b. Wage employee person
c. Skilled worker d. none

iv. When women take initiative and do business they are called as ____. 1
a. Ladies Entrepreneurs b. Women Entrepreneurs
c. Girl Power Entrepreneurs d. none

2. **Answer the following 4 questions on (1 x 4= 4 marks)**

i. What do you understand by 'Record' in a DBMS? 1

ii. What do you understand by the Degree of a relation? 1

iii. ____ clause can be used to sort the records on the basis of two columns. 1
a. GRANT b. ORDER BY
c. REVOKE d. none

iv. ____ command is used to create a new database. 1
a. NEW DATABASE b. CREATE DATABASE
c. ADD DATABASE d. none

3. **Answer the following 4 questions on (1 x 4= 4 marks)**

i. ____ command is used to create a new table or relation. 1
a. NEW TABLE b. CREATE TABLE
c. ADD TABLE d. none

ii. ____ command is used to delete records from a table. 1
a. DELETE b. REMOVE
c. DROP d. none

iii. RDBMS stands for ____. 1

iv. ____ key constraint is used to establish a relationship between two tables. 1

4. **Answer the following 4 questions on (1 x 4= 4 marks)**

i. State TRUE or FALSE: 1
"MySQL is compliant with the ANSI SQL standard"

ii. What do you understand by Cross Join in MySQL? 1

iii. What is a project? 1

iv. Which of the following is an email program? 1
a. Yahoo b. AOL c. Both (a) & (b) d. none

5. **Answer the following 4 questions on (1 x 4= 4 marks)**

i. Never share ____ with anyone while doing any online transaction. 1
a. OTP b. PIN c. Both (a) & (b) d. none

ii. In 'https://', what does 's' stands for? 1
a. standard b. standalone c. secure d. none

iii. Which of the following is a client-side script? 1
a. JavaScript b. HTML c. Both (a) & (b) d. none

iv. <u>Fill in the blank:</u> 1
NSP stands for ____.

SECTION B: SUBJECTIVE TYPE QUESTIONS

Answer the following 3 questions on Employability Skills (2 x 3 = 06 marks)

6.	Write any two importance of active listening at the workplace?	2
7.	Mention four qualities that motivate an entrepreneur.	2
8.	What do you understand by Team and Teamwork?	2

Answer the following 2 questions (2 x 2 = 04 marks)

9.	The following commands are giving errors. Write the correct MYSQL commands. **(a) SELECT AVERAGE(MARKS) FROM STUDENT;** **(b) UPDATE EMPLOYEE SALARY = SALARY + SALARY*0.1;**	2
10.	Name the various types of users of DBMS.	2

Answer the following 2 questions (3 x 2 = 06 marks)

11.	What is the use of the following aggregate functions? i. COUNT (*) ii. SUM (column) iii. MIN (column)	3
12.	Mention the first six stages of a web development cycle.	3

Answer the following 1 question (4 x 1 = 4 marks)

13.	Write SQL commands for the following on the basis of given table	4

EMPLOYEES table from (i) to (iv)

EMPLOYEES

E_ID	E_Name	Gender	Salary	Designation
11331	T.Rathore	M	23000	Clerk
11332	N.Sen	F	35000	Accountant
11333	M.Singh	F	34000	Sr. Supervisor
11334	S.Banerjee	M	50000	Sr.Manager
11335	S.Ghosh	F	45000	Sr.Manager
11336	A.Mehta	M	33000	Sr. Supervisor
11337	G.Rodrick	M	25000	Jr. Manager
11338	D.Malhotra	F	52000	Br.Manager
11339	J.Sinha	M	22000	Receptionist
11340	L.Fernandez	F	36000	Jr.Manager

(i) Write the details of the employees in ascending order of their salary.

(ii) The Salary of female employees has been increased by 5000.

(iii) Write the names of male employees only.

(iv) A new data has been inserted into the table with the following details:
(11341, “H.Das”, “M”, 12000, “Clerk”);

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Name:_____ Sec:_____ Roll No:_____

CODE:-A

BURNPUR RIVERSIDE SCHOOL, BURNPUR
PERIODIC TEST - 1 [2026 – 2027]
MATHEMATICS
CLASS - XII

TIME: $1\frac{1}{2}$ Hrs. **Maximum Marks: 40**

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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 14 **MCQ's and 02** Assertion – Reason based questions of 1 mark each.
3. **Section B** has 04 **Short Answer (SA) – type** questions of 2 marks each.
4. **Section C** has 01 **Long Answer (LA-I) – type** questions of 3 marks.
5. **Section D** has 01 **Long Answer (LA-II) – type** question of 5 marks.
6. **Section E** has 02 **Case Based (CBQ) – type** questions of 4 marks each with sub parts.

==========

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

1. Let us define a relation S in R (set of real numbers) as aRb if $a \geq b$. Then R is 1
   a) symmetric, transitive but not reflexive
   b) reflexive, transitive but not symmetric
   c) an equivalence relation
   d) neither transitive nor reflexive but symmetric

2. If a matrix has 18 elements, then the number of its possible order is 1
   a) 6
   b) 2
   c) 4
   d) 8

3. If A is a square matrix then (A + A') is 1
   a) A null matrix
   b) A skew - symmetric matrix
   c) A symmetric matrix
   d) An identity matrix

4. If the points A(3, - 2), B(k, 2) and C(8, 8) are collinear then the value of k is 1
   a) 5
   b) - 4
   c) 2
   d) - 3

5. Let the points A (1, 3) and B (0, 0) D (k, 0) form a triangle, using determinants find the value of k such that area of$\triangle$ ABD is 3 sq. units. 1
   a) 2
   b) $\pm$ 2
   c) - 2
   d) 4

6. The relation on the set A = {1, 2, 3} defined as R = {(1, 1), (2, 2), (3, 3), (1, 2), (2, 3) is 1
   a) reflexive only
   b) symmetric only
   c) transitive only
   d) reflexive and symmetric but not transitive.

7. If set A contains 3 elements, set B contains 2 elements, then maximum number of relations that can be defined between A and B is 1
   a) 16
   b) 2
   c) 64
   d) 256

8. A function f:R $\rightarrow$ R: $f(x) = 1 + x^n$ ($n \in N$) is 1
   a) one – one and onto if n is even.
   b) one – one and onto if n is odd.
   c) one – one but not onto if n is even.
   d) one – one but onto if n is odd.

9. The function f: R → R: f(x) = |x − 2| is 1
   a) one – one and onto for all real x
   b) one – one but not onto
   c) onto but not one – one
   d) neither one – one nor onto.

10. The value of k for which $f(x)=\begin{cases}\frac{\sin 5x}{3x}, \text{if } x \neq 0\\ k, \text{if } x = 0\end{cases}$ is continuous at x = 0 is 1
   a) 0
   b) $\frac{3}{5}$
   c) $\frac{1}{3}$
   d) $\frac{5}{3}$

11. If $f(x) = x^2 \sin\frac{1}{x}$ where $x \neq 0$ then the value of the function f at x = 0, so that the function is continuous at x = 0, is 1
   a) - 1
   b) 0
   c) 1
   d) 2

12. It $y = \tan^{-1}\left(\frac{\sqrt{a}+\sqrt{x}}{1-\sqrt{ax}}\right)$ then $\frac{dy}{dx} = ?$ 1
   a) $\frac{2}{\sqrt{x}(1+x)}$
   b) $\frac{1}{\sqrt{x}(1+x)}$
   c) $\frac{1}{(1+x)}$
   d) $\frac{1}{2\sqrt{x}(1+x)}$

13. If $y = \tan^{-1}\left(\frac{x}{\sqrt{1-x^2}}\right)$, then $\frac{dy}{dx}$ = 1

a) $\frac{1}{\sqrt{1-x^2}}$

b) $\frac{-1}{\sqrt{1-x^2}}$

c) $\frac{1}{\sqrt{1+x^2}}$

d) $\frac{-1}{\sqrt{1+x^2}}$

14. If $y = \sec^{-1}\left(\frac{x-1}{x+1}\right) + \sin^{-1}\left(\frac{x+1}{x-1}\right)$ then $\frac{dy}{dx}$ = 1

a) 1

b) 0

c) -1

d) 2

ASSERTION – REASON BASED QUESTIONS

15. **Assertion (A):** Let A = {1, 5, 8, 9}, B = {4, 6} and f = {(1, 4), (5, 6), (8, 4), (9, 6)}, then f is a bijective function. 1
Reason (R): Let A = {1, 5, 8, 9}, B = {4, 6} and f = {(1, 4), (5, 6), (8, 4), (9, 6)}, then f is a surjective function.
a) Both A and R are true and R is the correct explanation of A.
b) Both A and R are true but R is not the correct explanation of A.
c) A is true but R is false.
d) A is false but R is true.

16. **Assertion (A):** let L be the set of all lines in a plane and a relation R is defined on L as R = {(l_1, l_2): $l_1 \perp l_2$}then R is an equivalence relation. 1
Reason (R): A relation R defined on a set S is said to be an equivalence relation if R is reflexive, symmetric and transitive.
(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

Section B has 04 **Short Answer (SA) – type** questions of 2 marks each.

17. Let S be the set of all points in a plane and let R be a relation in S defined by R = {(A , B): d(A, B) < 2 units}, where d(A, B) is the distance between the points A and B. Show that R is reflexive and symmetric but not transitive. 2

18. Show that the function $f(x) = \begin{cases} 1, \text{if } x \text{ is rational} \\ -1, \text{if } x \text{ is irrational} \end{cases}$ is many – one into. 2

OR

Find the domain and range of the function f: R → R: $f(x) = 1 + x^2$.

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

20. If y = x sin y, prove that $\frac{dy}{dx} = \frac{\sin y}{(1 - x\cos y)}$. 2

SECTION – C

Section C has 01 **Long Answer (LA-I) – type** questions of 3 marks.

21. Express the matrix $A = \begin{bmatrix} -1 & 5 & 1 \\ 2 & 3 & 4 \\ 7 & 0 & 9 \end{bmatrix}$ as the sum of a symmetric and a skew - symmetric matrix. 3

OR

If $f(x) = \begin{cases} \frac{\sin(a+1)x + 2\sin x}{x}, & x < 0 \\ 2, & x = 0 \\ \frac{\sqrt{1+bx} - 1}{x}, & x > 0 \end{cases}$ is continuous at x = 0, then find the values of a and b.

SECTION - D

Section D has 01 **Long Answer (LA-II) – type** question of 5 marks.

22. If $y = (x + \sqrt{x^2 + 1})^m$ then prove that 5

$(x^2 + 1)\frac{d^2y}{dx^2} + x\frac{dy}{dx} - m^2y = 0$.

OR

Show that the relation R on N × N defined by (a, b) R (c, d) ⇔ a + d = b + c is an equivalence relation.

SECTION - E

Section E has 02 **Case Based (CBQ) – type** questions of 4 marks each with sub parts.

23. **Read the following text carefully and answer the questions that follow:** 4

On her birthday, Seema decided to donate some money to the children of an orphanage home. If there were 8 children less, everyone would have got ₹ 10 more. However, if there were 16 children more, everyone would have got ₹ 10 less. Let the number of children be x and the amount distributed by Seema for one child be y (in ₹).



1. Represent given information in matrix algebra.
2. Find the adjoint of Matrix containing information about of number of children and amount she paid?
3. Find the number of children who were given some money by Seema?

OR

How much amount does Seema spend in distributing the money to all the students of the Orphanage?

24. In a school at Asansol, students of class XI were discussing about the relations and functions. Three Students Ankita, Babita and Kavita form three sets A={1,2,3,4,5},B={2,4,6} and K={5,7} 4

Based on the above information answer the following:

(i) Find n (A×B) and n (K×B)

(ii) A correspondence of elements from A to B given as {(1,2),(2,2),(3,4),(3,6),(4,4), (5,6) }. Is it a function? Justify your answer.

(iii) Show the relation defined on set of integers Z by R = {(a, b): a – b is divisible by 5} is an equivalence relation on Z.

OR

Show that the relation defined on the set of all lines L in a plane by R = $\{(l_1, l_2): l_1 \parallel l_2)$ is an equivalence relation.

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Name:_____Sec:_____ Roll No:_____

CODE:B

BURNPUR RIVERSIDE SCHOOL, BURNPUR
PERIODIC TEST-1 [2026-27]
MATHEMATICS
CLASS- XII

Time: $1\frac{1}{2}$ Hrs. **Maximum Marks:40**

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General Instructions:

1. This question paper contains 24 questions. All questions are compulsory.
2. This question paper has 5 sections A,B,C,D and E
3. In Section A, Question no. 1 to 16 are MCQs and question no. 15 and 16 are Assertion-Reason based questions of 1 mark each
4. In Section B, Question no. 17 to 20 very short answer type(VSA) questions carrying 2 marks each.
5. In Section C, Question no. 21 is short answer type (SA) question carrying 3 marks.
6. In Section D, Question no. 22 is long answer type (LA) questions carrying 5 marks.
7. In Section E, Question no. 23 and 24 are case based questions carrying 4 marks each with subparts of the values of 1,1 and 2 marks each respectively.
8. There is no overall choice. However, an internal choice in 1 question of 5 marks,1question of 3 marks and 1 question of 2 marks is provided.
9. Draw neat figures wherever required. Take $\pi = \frac{22}{7}$ wherever required if not stated
10. Use of calculator is not allowed.

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SECTION A

1. If A = $\begin{bmatrix} 1 & k & 3 \\ 3 & k & -2 \\ 2 & 3 & -4 \end{bmatrix}$ is singular matrix then k= 1

(a)$\frac{16}{3}$ (b) $\frac{34}{5}$ (c) $\frac{33}{2}$ (d) 0

2. For any two matrices A and B we have in general 1

(a)AB=BA (b) AB≠BA (c) AB=O (d) None of these

3. If A is a square matrix of order 3 and $|3A| = k|A|$. Then the value of k is 1
(a)27 (b)9 (c) 3 (d) 2

4. If $\begin{vmatrix} 5 & 3 & -1 \\ -7 & x & 2 \\ 9 & 6 & -2 \end{vmatrix} = 0$ then x =? 1
(a)0 (b)6 (c)-6 (d)9

5. If $\begin{vmatrix} 3x & 7 \\ -2 & 4 \end{vmatrix} = \begin{vmatrix} 8 & 7 \\ 6 & 4 \end{vmatrix}$ then the value of x is 1
(a)-2(b) 2 (c)1 (d)3

6. If R= $\{(x, y): x, y \in Z, x^2 + y^2 \leq 4\}$ is a relation on set Z, then domain of R is 1
(a)$\{0,1,2\}$ (b)$\{-2,-1,0,1,2\}$ (c)$\{0,-1,-2\}$ (d)$\{-1,0,1\}$

7. The relation R on the set $\{1,2,3\}$ given by R= $\{(1,2),(2,1),(1,1)\}$ is 1

(a)symmetric and transitive but not reflexive
(b)reflexive and symmetric but not transitive
(c)symmetric but neither reflexive nor transitive
(d)an equivalence relation

8. $f: N \to N: f(x) = 2x$ is 1
(a)one-one and onto (b) one-one and into
(c) many one and onto (d)many-one and into

9. Let A = {a,b} then the number of one-one functions from A to A possible is 1
(a) 1 (b) 2 (c) 3 (d) 4

10. If the function $f(x) = \begin{cases} kx + 5, when\ x \leq 2 \\ x - 1, when\ x > 2 \end{cases}$ is continuous at x=2 then k=? 1
(a)2 (b) -2 (c)3 (d)-3

11 The value of k for which the function $f(x) = \begin{cases} kx^2, if\ x \geq 1 \\ 4, if\ x < 1 \end{cases}$ is 1
continuous at $x = 1$ is
(a) 4 (b) 3 (c) 2 (d)1

12. If $y = \log x, then\ \frac{d^2y}{dx^2} =$ 1
(a) $-\frac{1}{x^2}$ (b) $\frac{1}{x}$ c) 1 (d) x

13. If $e^x + e^y = e^{x+y}$, then $\frac{dy}{dx}$ = ? 1

(a) e^{y-x} (b) e^{x+y} (c)$-e^{y-x}$ (d)$2e^{x-y}$

14. If $y = Ae^{5x} + Be^{-5x}, then\ \frac{d^2y}{dx^2}$ =? 1
(a) 25y (b) $5y$ (c) $-25y$ (d) $15y$

15. **Assertion (A)** : A relation $R = \{(1,1),(1,2),(2,2),(2,3),(3,3)\}$ is defined on the set A={1,2,3} is reflexive . 1

Reason(R): a relation R on the set A is said to be reflexive if (a,a)$\in R$ for all a$\in A$

(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

16. **Assertion(A):** a function $f: N \to N$ be defined by 1

$f(n) = \begin{cases} \frac{n+1}{2}, if\ n\ is\ odd \\ \frac{n}{2}, if\ n\ is\ even \end{cases}$ is one one function for all n$\in N$

Reason(R): a function $f: A \to B$ is injective if f(a)= f(b)$\Rightarrow a = b$

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

SECTION B

17. Let R= $\{(a, a^3)$: a is a prime number less than 5$\}$ be a relation set. Find the domain and the range of R. 2

18. Show that the function $f: N \to N: f(x) = x^2$ is one one into. 2

OR

Find the domain and range of the real function $f(x) = \sqrt{9 - x^2}$

19. Discuss the continuity of $f(x) = \begin{cases} 2x - 1, if\ x < 0 \\ 2x + 1, if\ x \geq 0 \end{cases}$ at x=0 2

20. If $y = Acos\ nx + Bsin\ nx$, prove that $\frac{d^2y}{dx^2} + n^2y = 0$ 2

SECTION C

21. If $A = \begin{bmatrix} 1 \\ -4 \\ 3 \end{bmatrix}$ and $B = [-1 \quad 2 \quad 1]$ verify that $(AB)^T = B^T A^T$. 3

OR

Let $f(x) = \begin{cases} 3ax + b, if\ x > 1 \\ 11, if\ x = 1 \\ 5ax - 2b, if\ x < 1 \end{cases}$, find the values of a and b so that f(x) is continuous at $x = 1$

SECTION D

22. If $y = (\sin x)^{\cos x} + (\cos x)^{\sin x}$ find $\frac{dy}{dx}$ 5

OR

On the set Z of all integers consider the relation
R= $\{(a, b): (a - b) is\ divisible\ by\ 3\}$. Show that R is an equivalence relation on Z

SECTION-E

23. **Case study:** Amit , Biraj and Chirag were given the task of creating a square matrix of order 2. Below are the matrices created by them. A,B,C are the matrices created by Amit , Biraj and Chirag respectively.

$A = \begin{bmatrix} 1 & 2 \\ -1 & 3 \end{bmatrix}$, $B = \begin{bmatrix} 4 & 0 \\ 1 & 5 \end{bmatrix}$,$C = \begin{bmatrix} 2 & 0 \\ 1 & -2 \end{bmatrix}$

If $a = 4$ and $b = -2$ based on the above information answer the following

(i)find $(bA)^T$

(ii)find $AC - BC$ 1

(iii)find $(a + b)B$ 1

OR

(iii) Find $(AB)^T$ 2

24. **Case study:** Sachin and Mohit are playing Ludo at home . While rolling the dice, Sachin's sister observed and noted the possible outcomes of the throw every time. The outcomes belongs to set {1,2,3,4,5,6}.Let A be the set of players while B be the set of all possible outcomes.
A = {S, M}, B = {1,2,3,4,5,6}

(i)How many numbers of relations are possible from A to B ?

(ii) Let R be a relation on B defined by 1

R = {(1,2), (2,2), (1,3), (3,4), (3,1), (4,3), (5,5)}. Then show that R is not symmetric. 1

(iii)Let $R : B \to B$ be defined by R = $\{(x, y): y\ is\ divisible\ by\ x\}$. Show that R is Reflexive and transitive but not symmetric 2

OR

(iii) Let R:$B \to B$ be defined by R={(1,1),(1,2), (2,2), (3,3), (4,4), (5,5),(6,6)}, then verify that if R is Reflexive and Transitive

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Name:_____Sec:____ Roll No:___

CODE : A

BURNPUR RIVERSIDE SCHOOL,BURNPUR

PERIODIC TEST :1 [2026-2027]

PHYSICAL EDUCATION

Class – XII

Time: 1 ½ Hours **Max Marks: 40**

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General Instructions:

1. There are 21 questions in the question papers. All questions are compulsory.
2. Question no 1 to 7 which has 7 MCQS. Each question carries 1 mark.
3. Question no 8 to 13 are very short answer type questions. Each question carries 2 marks. (30 to 50 words)
4. Question No 14 &17 are short answer type questions. Each question carries 3 marks. (80 to 100 words)
5. Question No 18 is value based question, carry 4 mark
6. Question No 19 to 21 are long answer type questions. Each question carries 5 marks. (100 to 150 words)

SECTION - A

1 In a knockout tournament of 21 teams, how many rounds will be played? 1

a) 5 b) 6 c)10 d) 4

2 Which of the following is the work of during tournament committee? 1

a) Opening ceremony preparation
b) Announcement of the event
c) Making necessary announcement
d) Registration of participants

3 Match the following: 1

List I	List II
A. Knock Knee/ Genuvalgum	1. Increase exaggeration of backward curve
B. Kyhosis	2. Wide gap between the knees when standing with feet together
C. Lordosis	3. Knees touch each other in normal standing position
D. Bow Legs	4.Inward curvature of the spine

Codes:

	A	B	C	D
a.	3	1	4	2
b.	1	3	4	2
c.	4	2	1	3
d.	2	3	4	1

4 Identify the following postural deformity: 1



a) Scoliosis b) Kyphosis c) Lordosis d) Round Shoulder

5 Give below are two statements labeled as Assertion (A) and Reason (R). 1

Assertion (A): Katichakrasana is also called a fish pose.

Reason (R): Katichakrasana is always done in standing position with feet together.

In the context above two statements, which one of the following is correct?

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.

6 Identify the yoga asana below: 1



a) Ushtra Asana b) Mandukasana
c) Suptavajrasana d) Uttana mandukasana

7 Identify the following logo. It is related to 1



a) Paralymic Games b) Olympic Games
c) Indian premier league d) FIFA

SECTION – B (Attempt any five)

8 What do you mean by planning? 2

9 Define tournament. 2

10 Suggest two exercises for correcting flat foot. 2

11 What is ‘Menarche’. 2

12 Define Yoga. 2

13 What do you mean by disability? 2

SECTION – C (Attempt any three)

14	Briefly explain ‘ Health Run’.	3
15.	What is the difference between kyphosis and lordosis.	3
16.	How is yoga beneficial for sports person? Explain	3
17.	Write a briefly about the concept of inclusive education.	3

SECTION – D

18. On the basis of the picture given below answer the following questions. 4



a) Identify the yoga asana
b) What is another term used for the same asana?
c) What is the purpose of this asana?
d) The ratio between inhalation and exhalation is _____.

SECTION – E (Attempt any two)

19.	Draw a single knockout fixture of 17 teams.	5
20.	Write the reasons of less participation of women in games and sports in India.	5
21.	What do you understand by obesity? Explain the procedure and benefits and contraindications of any two asanas to manage obesity.	5

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Name: _____ Sec: ____ Roll No.: ____

CODE: B

BURNPUR RIVERSIDE SCHOOL, BURNPUR

PERIODIC TEST:1 [2026-2027]

PHYSICAL EDUCATION

CLASS: XII

Time: 1½ Hrs. **Maximum Marks: 40**

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General Instructions:-

1. The question paper consists of 5 sections and 21 questions.
2. Section A Consists of question 1-7 carrying 1 mark each and is multiple choice questions. All questions are compulsory.
3. Section B consists of questions 8-13 carrying 2 marks each and are very short answer types and should not exceed 60-90 words. Attempt any 5.
4. Section C consists of questions 14-17carrying 3 marks each and are short answer types and should not exceed 100-150 words. Attempt any 3.
5. Section D consist of questions no. 18 carrying 4 marks and are case studies.
6. Section E consists of questions 19-21 carrying 5 marks each and are long answer types and their answers should not exceed 200-300 words. Attempt any 2

SECTION -A

[All questions are compulsory]

1. The number of byes calculated by: 1
   a) Teams – power of 2
   b) Power of 2 - Teams
   c) Teams ÷ 2
   d) Teams × 2
2. Given below are two statements, one of which is labelled as Assertion (A) and other is labelled as Reason (R). 1
   Read both the statements carefully:
   Assertion (A):- The knock-out tournament is an elimination tournament.
   Reason (R):- In a knock-out tournament, the winner of each match advances in the tournament and the loser gets eliminated.
   In the context of the above two statements, which one of the following is correct?
   (A) Both Assertion and Reason are true and Reason is

the correct explanation of Assertion.

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

(C) Assertion is true, but Reason is false.

(D) Assertion is false, but Reason is true.

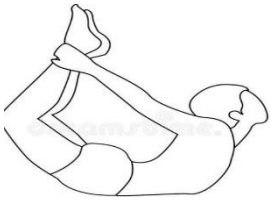
3. Match List-I with List-II 1

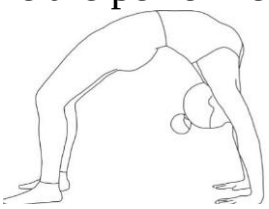
	List-I		List-II
a)	Kyphosis	(i)	Inward curve of the spine
b)	Lordosis	(ii)	Sideways curve of the spine
c)	Scoliosis	(iii)	Forward bending and rounding of shoulders
d)	Round Shoulders	(iv)	Rounding of upper back

CODES

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

4. Asanas shown in the picture are performed to correct:- 1





a) Kyphosis and Lordosis

b) Round shoulder and Kyphosis

c) Scoliosis and Lordosis

d) Lordosis and Round Shoulder

5. Bhujangasana is also known as…. 1

a) Dog posture

b) Child posture

c) Cobra posture

d) Reverse boat posture

6. Which of the following asanas gives a posterior stretch to spinal column? 1

a) Sukhasana
b) Paschimottasana
c) Shavasana
d) Gomukhasana

7. Who started Special Olympics International? 1

a) John F Kennedy
b) M. Mahadeva
c) Eunice Kennedy Shriver
d) Sir Ludwig Guttmann

SECTION-B

[Attempt any 5 questions]

8. Suggest any two disadvantages of league tournament. 1+1=2
9. Briefly explain 'Health Run'. 2
10. Suggest any two exercises for correcting flat foot. 2
11. How much physical activity should children of age 3-4 years do daily? How much of it should be moderate to vigorous? 1+1=2
12. Enlist any four benefits of Asanas. ½ X4= 2
13. Enlist four benefits of participation in physical activities for children with special needs. ½ X4=2

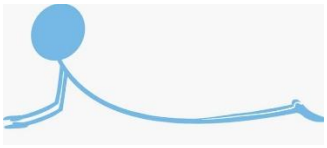
SECTION-C

(Attempt any five questions)

14. Briefly explain the functions of "Directing" and "Staffing" to organize sports event. 1½+1½ =3
15. Devise a plan of physical activities in accordance with World Health Organisation guidelines for adults 65 and above. 3
16. Name the asana which can be done for increasing our height and explain the procedure of that asana. 1+2=3
17. Discuss any two eligible impairments in Paralympics for classification. 1½+1½ =3

SECTION-D

18. Mr. Shyam aged 50 years is recommended to practice the below asana as a therapeutic measure. He is a software engineer by occupation and spends lot of time sitting at one place. He developed certain symptoms like frequent urge for urination, tiredness, excessive weight gain along with being anxious and getting easily irritated. 4



Answer the following questions based on the above case and your prior knowledge:

i) From the shape of the body in the given pose, it can be identified as:
   a) Gomukhasana
   b) Bhujangasana
   c) Tadasana
   d) Vajrasana

ii) Mr. Shyam's symptoms point out that he might be suffering from:
   a) Diabetes
   b) Heart problem
   c) Obesity
   d) Asthma

iii) Blood sugar levels are controlled by _____ hormone.
   a) Thyroxin
   b) Insulin
   c) Pituitary
   d) Progesterone

iv) This asana should be avoided by people suffering with:-
   a) Obesity
   b) Hernia
   c) Diabetes
   d) Hypertension

SECTION-E

[Attempt any 2 questions]

19. What is league tournament? Draw a fixture of 9 teams on the basis of league tournament using Cyclic method. 1+4=5

20. Differentiate between Scoliosis and Lordosis deformities. Suggest any three corrective measures for Knock-knee and Bow legs deformities. 1+1+ 1½+1½ =5

21. Describe the procedure and contraindications of Halasana to control obesity. 3+2 =5

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Name:_____Sec:____ Roll No:_____

CODE: A

BURNPUR RIVERSIDE SCHOOL, BURNPUR
PERIODIC TEST:1[2026-27]
PHYSICS
CLASS XII

TIME: $1\frac{1}{2}$ Hours **Maximum Marks: 40**

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All questions are compulsory.
All questions are compulsory.
Section A contains five questions of 1 mark each.
Section B contains two questions of 1 mark each.
Section C contains three questions of 2 marks each.
Section D contains five questions of 3 marks each.
Sections E contain one case-based question of 4 marks.
Section F contains two questions of 5 marks each.

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Section: A

Question 1 to 5 are multiple choice type question, choose correct option only.

1. Two identical bodies having charges $40\mu C$ and -20 μC are at some distance apart. Now they are touched and kept at same distance. The ratio of initial force to final force between them: 1

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

2. Two-point charges are placed at a distance r in air exert a force F on each other. The value of distance R at which they experience force 4F when placed in a medium of dielectric constant k=16 is: 1

(a)r (b)r/4 (c)r/8 (d)2r

3. A charge Q is placed at each of the opposite corners of a square. A charge q is placed at each of the other two corners. If net electrical force on Q is zero then find the ratio of q/Q 1

(a)-$\frac{1}{\sqrt{2}}$ (b)-$2\sqrt{2}$ (c)-1 (d)1

4. 64 identical drops each charged up to a potential of 10mV are combined to form bigger drop. The potential of the bigger drop will be: 1

(a)160mV (b)80mV (C)40mV (d)10mV

5. Two conductors A and B of capacitance 3μF and 6 μF having charges 6μC and 3 μC. They are kept at large distance and are connected by wire; then common potential is: 1

(a)1volt (b)2Volt (c)3Volt (d)1.5Volt

6. An electron and a proton are at a distance of 1 Angstrom. Then electric dipole moment is:

(a)1.6×10^{-29} (b) 1.6×10^{-19} (c) 1.6×10^{-10} (d)3.2×10^{-19}

SECTION: B

Reasoning Assertion type:

Instruction for question no 6 to 7.

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

(a) Assertion is correct, reason is correct; reason is a correct explanation for assertion.

(b) Assertion is correct, reason is correct; reason is not a correct explanation for assertion

(c) Assertion is correct; reason is false.

(d) If both Assertion and reason is false.

7. **Assertion:** In a non-uniform electric field, a dipole will have translatory as well as rotatory motion 1

Reason: In a non-uniform electric field, a dipole experiences a force as well as torque.

8. **Assertion:** If there exists Coulomb's force of attraction between bodies, both of them may not be charged. 1

Reason: In Coulomb's attraction of two bodies, they are oppositely charged.

SECTION: C

Each carry two marks:

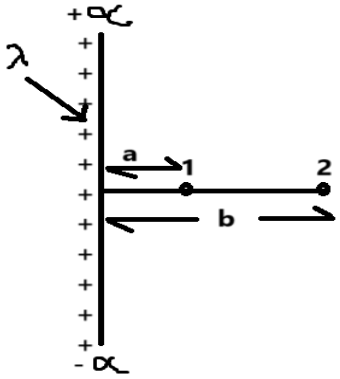
9. Derive the expression of field due to infinite line charge at a perpendicular distance of r from it. Charge per unit length is . 2

10. Derive the expression of field due to dipole at any axial point. 2

11. Derive the expression of capacitance of a parallel plate air capacitor. 2

SECTION: D

Each carry three marks:

12. 

3

Above diagram shows a line charge having uniform charge density of $+\lambda$.Find the expression of Potential difference between points 1 and 2 as shown in the figure. Points 1 and 2 are at perpendicular distance of a and b from the line charge.

13. Derive the expression of potential due to a dipole at any point. 3

14. An early model of an atom considered it to have a positively charged point nucleus of charge +Ze surrounded by uniform density of negative charge up to radius R. What is the expression of electric field due to this atom at distance of r from it where r<R. 3

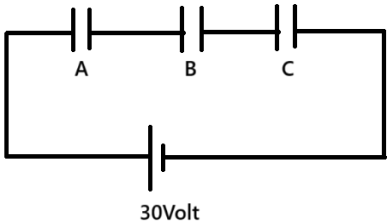
15. Using Gauss law derive the expression of electric field due hollow sphere at distance (i) r<R (ii) r>R. Where charge on hollow sphere is +Q and radius is R. 3

SECTION: E

Case Based question.

16. **A capacitor is device that stores electric charges. Capacitors vary in shape and sizes. But basic configuration is that two conductors carry equal and opposite charges. Capacitors have many important applications like storing energy, delaying voltage changes when connected to resistors, filtering out unwanted signals and frequencies….** 4

(a)



In the above circuit capacitance of capacitor A =2μF, B=3 μF and C=6 μF are connected in series to 30Volt battery. Then equivalent capacitance of the system is:

(a)1 μF (b)2 μF (c)3 μF (d)4 μF

(b) In the above circuit charge on 2 μF capacitor is :

(a)30 μF (b) 20μF (c)60 μF (d)50 μF

(c) In the above circuit potential difference across 3 μF capacitor is:

(a)10V (b)20V (c)30V (d)15V

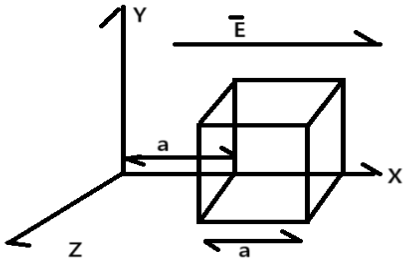
(d) In the above circuit energy stored in 3 μF capacitor is :

(a)150 µJ (b)300 µJ (c)200 µJ (d)450 µJ

SECTION: F

Long answer type question:

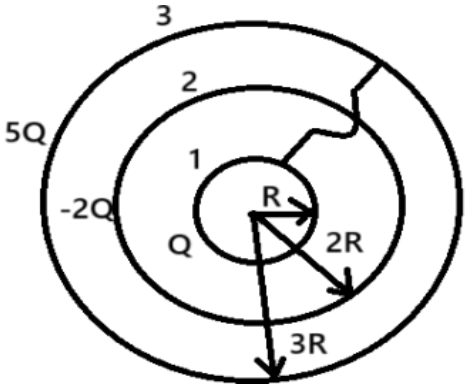
Q17. 5



The electric field is along +ve X axis having value E=$\propto \sqrt{x}$ where value of $\propto$=800$\frac{N}{C} m^{1/2}$.Find total flux through the cube of side length a=1 m. Also find total charge inside the cube.

Q18. (a) Draw equipotential surfaces and field lines for an isolated positive charge and for a dipole. 5

(b)



Find charge on each sphere after joining inner sphere and outer sphere by conducting wire. The charges on inner sphere is Q , on middle sphere is -2Q and on outer sphere is 5Q.

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Name:_____Sec:_____ Roll No:_____

CODE:B

BURNPUR RIVERSIDE SCHOOL, BURNPUR
PERIODIC TEST:1 [2026-2027]
PHYSICS
CLASS XII

TIME: $1\frac{1}{2}$ Hours **Maximum Marks: 40**

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All questions are compulsory.
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Section A contains five questions of 1 mark each.
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Section C contains three questions of 2 marks each.
Section D contains five questions of 3 marks each.
Section E contain one case-based question of 4 marks.
Section F contains two questions of 5 marks each.

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Section: A

Question 1 to 5 are multiple choice type question, choose correct option only.

1. A point charge +Q is placed at centroid of an equilateral triangle. When a second charge +Q placed at a vertex of the triangle the force on the charge at centroid is 8N. What will be the force on the charge at centroid if another charge +Q is placed at other vertex. 1

(a)8N (b) Zero (c) $8\sqrt{2}$ N (d)16N

2. Four charges +Q each are placed at four vertices of a square of side length a. Find force on any of the charge due to other charges. 1

(a) $\frac{KQ^2}{2a^2}(2\sqrt{2}+1)$ **(b) $\frac{KQ^2}{a^2}(2\sqrt{2}+1)$**

(c) $\frac{KQ^2}{2a^2}(2\sqrt{2}-1)$ **(d) $\frac{KQ^2}{2a^2}(\sqrt{2}+1)$**

3. No of electrons that should be removed from a coin of mass 1.6gm, such that it may float in electric field intensity 10^9 N/C directed upwards. 1

(a)9.8×10^7 (b) 9.8×10^5 (c) 19.8×10^7 (d) 9.8×10^6

4. 64 identical drops each charged up to a potential of 10mV are combined to form bigger drop. The potential of the bigger drop will be: 1

(a)160mV (b)80mV (C)40mV (d)10Mv

5. Two conductors A and B of capacitance 3μF and 6 μF having charges 6μC and 3 μC. They are kept at large distance and are connected by wire; then common potential is: 1

(a)1volt (b)2Volt (c)3Volt (d)1.5Volt

6. Two charges $3x10^{-8}$ C and $-2x10^{-8}$ C are placed 15 cm apart , then potential is zero at :

(a)9cm (b)6cm (c)12cm (d)8cm

SECTION: B

Reasoning Assertion type:

Instruction for question no 6 to 7.

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

(a) Assertion is correct, reason is correct; reason is a correct explanation for assertion.

(b) Assertion is correct, reason is correct; reason is not a correct explanation for assertion

(c) Assertion is correct; reason is false.

(d) If both Assertion and reason is false.

7. **Assertion:** In a non-uniform electric field, a dipole will have translatory as well as rotatory motion 1

Reason: In a non-uniform electric field, a dipole experiences a force as well as torque.

8. **Assertion:** If there exists Coulomb's force of attraction between bodies, both of them may not be charged. 1

Reason: In Coulomb's attraction of two bodies, they are oppositely charged.

SECTION: C

Each carry two marks:

9. Derive the expression of field due to infinite plane sheet having charge density of σ. 2

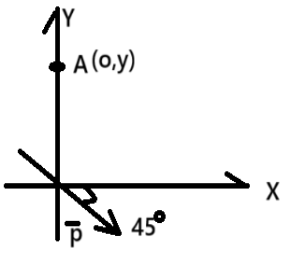
10. Derive the expression of field due to dipole at any equatorial point. 2

11. Derive the expression of capacitance of a parallel plate air capacitor. 2

SECTION: D

Each carry three marks:

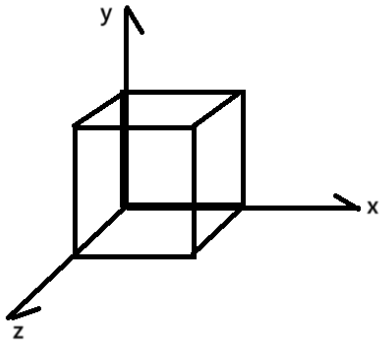
12. 3



A small dipole of dipole moment $\bar{p}$ is inclined at an angle of 45°to X axis. Find the expression of electric field at point A having coordinate (0,y). (Take the dipole as very small).

13. Derive the expression of potential due to a dipole at any point. 3

14. 3



A cube of 20cm is kept in a region where electric field exist in the region, The potential at a point in X direction is given by V=10x+5 where V is in volts and x in mts. Find electric field and total flux through cube.

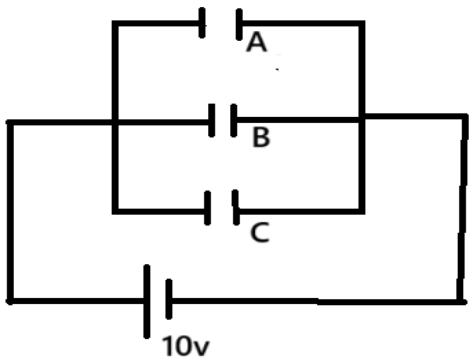
15. Using Gauss law derive the expression of electric field due hollow sphere at distance (i) r<R (ii) r>R. Where charge on hollow sphere is +Q and radius is R. 3

SECTION: E

Case Based question.

16. **A capacitor is device that stores electric charges. Capacitors vary in shape and sizes. But basic configuration is that two conductors carry equal and opposite charges. Capacitors have many important applications like storing energy, delaying voltage changes when connected to resistors, filtering out unwanted signals and frequencies….** 4

(i)



What is the equivalent capacitance of the system if Capacitance of capacitor A is 1μF, of capacitor B is 2μF and that of capacitor C is 3μF

(a)6μF (b)8 μF (c)12 μF (d)8 μF

(ii) In the above circuit charge on 2μF capacitor is:

(a)**20μC (b)30 μC (c)40 μC (d)60 μC**

(iii) Energy stored in the above circuit diagram in 3μF is

(a) 300 µJ (b) 150 µJ (c)450 µJ (d)600 µJ

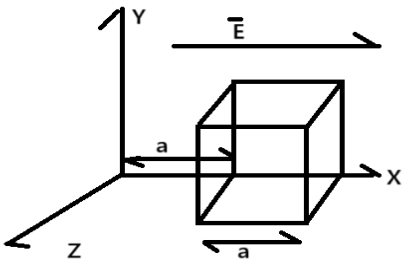
(iv) Total energy stored in all capacitors:

(a)150 µJ (c)300 µJ (c)450 µJ (d)600 µJ

SECTION: F

Long answer type question:

17. 5



The electric field is along +ve X axis having value E=$\propto \sqrt{x}$ where value of $\propto$=800.Find total flux through the cube of side length a=1 m. Also find total charge through the cube.

18. 5

(a) Draw three equipotential surfaces corresponding to field that increases in magnitude but remains constant along +Z axis.

(b) Draw equipotential surfaces and electric field lines for a dipole.

(c) Prove that energy density in electric field is given by $\frac{1}{2} \in oE^2$, where terms hold usual meaning.

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