CODE-A

Name: _____ Sec: ____ Roll No.: _ ___

BURNPUR RIVERSIDE SCHOOL, BURNPUR
HALF YEARLY EXAMINATION: [2026-2027]
ACCOUNTANCY
CLASS: XII

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

==========

General Instruction:

Read the following instructions very carefully and strictly follow them.

(i) This question paper consists of **34** questions. All questions are **compulsory.**

(ii) Question no. 1-20 are multiple choice questions. Each question carries **1** mark.

(iii)Question no. 21-26 are short answer type- I questions. Each question carries **3** marks.

(iv) Question no. 27-29 are long answer type-I questions. Each question carries **4** marks.

(v) Question no. 30-34 are long answer type -II questions. Each question carries **6** marks.

1. Hina and Neena are partners in a firm. Neena withdrew ₹10,000 per month at the beginning of each month during the year ended 31st March, 2022. Interest on drawings was to be charged @ 6% per annum. Interest on Neena's drawings for the year ended 31st March, 2022 will be: 1

(a) ₹3,900 (b) ₹325
(c) ₹3,600 (d) ₹3,300

2. Assertion (A): Goodwill is an intangible asset. 1
Reason (R): Goodwill is the value of the reputation of a firm in respect of profits expected in future, over and above the normal profits.
Select the correct answer from the following:
(a) Assertion (A) is correct, but Reason (R) is wrong.
(b) Assertion (A) is wrong, but Reason (R) is correct.
(c) Both Assertion (A) and Reason (R) are correct.

(d) Both Assertion (A) and Reason (R) are wrong.

3. Aman, Aadhar and Avinash were partners and sharing profits in the ratio of 3:2:1. Avinash retired from the firm on 1st July, 2022. On the date of Avinash's retirement, the Balance Sheet showed a debit balance of ₹1,20,000 in the Profit and Loss Account. For calculating the amount payable to Avinash, this balance will be transferred: 1

(a) To the debit side of the capital accounts of Aman and Aadhar in old profit-sharing ratio.
(b) To the debit side of the capital accounts of Aman, Aadhar and Avinash in old profit-sharing ratio.
(c)To the credit side of the capital accounts of Aman and Aadhar in new profit-sharing ratio.
(d) To the credit side of the capital accounts of Aman and Aadhar in their gaining ratio.

OR

What journal entry will be recorded for deceased partner's share in profit from the closure of last balance sheet till the date of his death? 1

(a) Profit and Loss A/c…..Dr.
To Deceased Partner's Capital A/c
(b) Deceased Partner's Capital A/c…..Dr.
To Profit and Loss A/c
(c) Deceased Partner's Capital A/c….Dr.
To Profit and Loss Suspense A/c
(d) Profit and Loss Suspense A/c…Dr.
To Deceased Partner's Capital A/c

4. Rohit and Mohit were partners sharing profits and losses in the ratio of 2:1. Their capital accounts as on 31.3.2021 had a credit balance of ₹1,09,000 and ₹66,000 respectively. They admitted Sahil as a new partner on 1st April, 2021 for 1/5th share in profits. Sahil brought ₹25,000 as his share of goodwill premium. He agreed to contribute capital in new profit-sharing ratio. The amount of capital brought by Sahil was: 1

(a) ₹40,000 (b) ₹32,000
(c) ₹12,50,000 (d) ₹50,000

OR

1

X and Y are partners in a firm sharing profits in the ratio of 5:3. They admitted Z as a new partner. The new profit-sharing ratio will be 4:3:2 The firm's goodwill on Z's admission was valued at ₹1,26,000. But Z could not bring any amount of goodwill in Cash. Credit will be given to:

(a) X₹17,500; Y₹10,500 (b) X ₹16,000; Y₹12,000
(c) X₹22,750; Y₹5,250 (d) X₹1,02,375; Y₹23,625

5. Which of the following will be transferred to Realisation Account at the time of dissolution of firm? 1
(i) Provision for Doubtful Debts
(ii) Partners' Loan
(iii)General Reserve
(iv) Goodwill

(a) (i) and (iv) (b) (i), (ii) and (iv)
(c) (i), (iii) and (iv) (d) (i), (ii) and (iii)

6. Which of the following is a tool of Analysis of Financial Statements: 1
(i) Cash Flow Statement
(ii) Statement of Profit and Loss
(iii) Notes to Accounts
(iv) Balance Sheet

Choose the correct option:
(a) (i) (b) (i) and (ii)
(c) (ii) (d) (i), (ii) and (iv)

OR

Which of the following is not a sub-head under the Current Assets? 1

(a) Cash and Cash Equivalents.
(b) Trademarks
(c) Short-term Loans & Advances
(d) Inventories

7. Keshav and Karan were partners in a firm sharing profits equally. The capitalised value of average profits of the firm was ₹18,00,000. Assets of the firm were ₹20,00,000 (excluding goodwill) and Liabilities were ₹5,00,000. The value of goodwill of the firm by capitalisation of average profits method will be: 1

(a) ₹2,00,000 (b) ₹3,00,000
(c) ₹4,00,000 (d) ₹3,50,000

OR

Value of goodwill of a firm at 3 times of super profits is ₹54,000. Average profits of the firm are ₹60,000 (after an abnormal loss of ₹8,000) Normal rate of return is 10%. Capital invested in the firm will be 1

(a) ₹3,40,000 (b) ₹5,00,000
(c)₹4,20,000 (d) ₹8,60,000

8. Cash Balance ₹5,000: Trade Payables ₹40,000; Inventory ₹50,000: Trade Receivables ₹65,000 and Prepaid Expenses are ₹10,000. Liquid Ratio will be: 1

(a) 1.75: 1 (b) 2:1
(c) 3.25: 1 (d) 3:1

9. Surbhi and Leena were partners in a firm sharing profits and losses in the ratio of 5: 3. Ashi was admitted as a new partner for share in the profits of the firm. Ashi acquired 3/5 of her share from Surbhi. From the following, how much share Ashi acquire from Leena: 1

(a) 1/10 (b) 3/20
(c) 2/5 (d) ⅜

OR

Rani, Maharani and Laxmi were partners in a firm sharing profits and losses in the ratio of 3: 3: 2. On 1st April, 2024 they admitted Reema as a new partner 1/5th share in the profits of the firm. Reena acquired her share from Rani and Maharani in the ratio of 3: 2. The new profit-sharing ratio between Rani, Maharani, Laxmi and Reena will be 1

(a) 51:59:40:50 (b) 51:59:50:40
(c) 59:51:50:40 (d) 40:51:59:50

10. P, Q and R were partners in a firm sharing profits and losses in the ratio of 4: 3: 1. P died on 1st September, 2022. On the date of P's death, the profits of the firm were calculated as ₹80,000. P's share of profit will be adjusted by: 1

(a) Debiting Profit and Loss Account with ₹40,000.
(b) Debiting Profit and Loss Appropriation Account by ₹40,000.
(c) Debiting Profit and Loss Suspense Account with₹ 80,000.
(d)Debiting Profit and Loss Suspense Account with ₹40,000.

11. In 'Common Size Income Statement' each item is expressed as a percentage of: 1

(a) Total Income (b) Total Expenses
(c) Profit After Tax (d) Revenue from Operations

Read the following hypothetical situation and answer questions number 12 and 13 on the basis of the given information:
Kavita, Savita and Madhu were partners in a firm with capitals of 6,00,000, ₹4,00,000 and ₹2,00,000 respectively. After providing interest on capital @ 10% p.a., the profits are divisible as follows:
Kavita ⅓, Savita ½ and Madhu 1/6. Kavita personally guaranteed that Savita's share of profit after charging interest on capital would not be less than 1,00,000 in any year.
The profit for the year ending 31st March, 2022 amounted to ₹3,00,000 before providing interest on capital.

12. Savita's share of profit is short of the guaranteed amount by: 1

(a) ₹40,000 (b) ₹70,000

(c) ₹20,000 (d) ₹10,000

13. . The total profits of the firm after adjustment of guaranteed amount will be distributed between the partners as: 1

(a) Kavita ₹60,000, Savita ₹ 40,000 and Madhu ₹20,000
(b) Kavita ₹50,000, Savita ₹1,00,000 and Madhu ₹30,000
(c) Kavita ₹60,000, Savita ₹90,000 and Madhu ₹ 30,000
(d) Kavita ₹60,000, Savita ₹1,00,000 and Madhu ₹20,000

14. Nidhi, Kunal and Kabir are partners in a firm sharing profits in the ratio of 2: 1: 2.Kunal retired and the balance in his capital account after making necessary adjustments on account of reserves, revaluation of assets and reassessment of liabilities was ₹80,000. Nidhi and Kabir agreed to pay him ₹1,00,000 in full settlement of his claim. Kunal's share of goodwill of the firm, on his retirement was: 1

(a) ₹4,000 (b) ₹20,000
(c) ₹16,000 (d) ₹1,80,000

15. Ram and Mohan were partners with fixed capitals of ₹3,00,000 and ₹2,00,000 respectively. As per their partnership deed, interest on capital was allowed @ 10% p.a. Net profit for the year ended 31st March, 2022 was ₹30,000. The amount of interest on capital was credited to each partner's current account for the year ended 31st March, 2022 was: 1

(a) Ram ₹30,000 and Mohan ₹20,000
(b) Ram ₹20,000 and Mohan ₹10,000
(c) Ram₹18,000 and Mohan ₹12,000
(d) Ram ₹30,000 and Mohan Nil

16. A company's working capital is ₹10 lakh (Negative balance) in the year 2024. It became ₹15 lakh (Positive balance) in the year 2025. What is the percentage of change? 1

(a) 150% (b) 100%
(c) 250% (d) 50%

OR

Revenue from Operations ₹4,00,000; Cost of Revenue from 1

Operations 60% of Revenue from Operations; Operating expenses ₹30,000 and rate of income tax is 40%. What will be amount of the profit after tax?

(a) ₹64,000 (b) ₹78,000
(c) ₹52,000 (d) ₹96,000

17. A partnership firm has capital employed of ₹6,00,000. Its average profits are ₹80,000. The normal rate of return in similar type of business is 10%. The amount of super profits are: 1

(a) ₹60,000 (b) ₹8,000
(c) ₹20,000 (d) ₹52,000

OR

1

A. B and C were partners sharing profits and losses in the ratio of 7:32. From 1st January, 2023 they decided to share profits and losses in the of 8:4:3. Goodwill is ₹1,20,000. In Adjustment entry for goodwill

(a) Cr. A by ₹6,000: Dr. B by ₹2,000; Dr. C by ₹4,000
(b) Dr. A by ₹6,000; Cr. B by ₹2,000; Cr. C by ₹4,000
(c) Cr. A by ₹6,000; Dr. B by ₹4,000; Dr. C by ₹2,000
(d) Dr. A by ₹6,000: Cr. B by ₹4,000; Cr. C by ₹2,000

18. Yuvraj and Yogesh were partners in a firm sharing profits in the ratio of 2: 1. They admitted Yogita as a new partner for 1/5th share in future profits. Capital of Yuvraj and Yogesh were ₹4,50,000 and ₹1,50,000 respectively. Yogita brought ₹2,50,000 as her capital. The value of goodwill of the firm on Yogita's admission was: 1

(a) ₹5,50,000 (b) ₹8,50,000
(c) ₹12,50,000 (d) ₹4,00,000

OR

X and Y are partners sharing profits in the ratio 5: 3. They admit Z for $1/5^{th}$ of profits, for which he paid ₹60,000 against

capital and ₹30,000\
against goodwill. Find the capital balance for each partner taking Z's capital as base capital:

(a) ₹1,50,000, ₹60,000 and ₹60,000
(b) ₹1,50,000, ₹60,000 and ₹90,000
(c) ₹1,50,000, ₹90,000 and ₹60,000
(d) ₹1,50,000, ₹90,000 and ₹90,000

19. Ideal Current Ratio is: 1

(a) 1:1 (b)1:2
(c) 1:3 (d) 2:1

20. Statement 1: Revaluation Account records only the changes in the values of assets and liabilities. 1
Statement 2: Realisation Account records all assets and liabilities at the time of dissolution of a partnership firm.

(a) Statement I is true but Statement II is false
(b) Statement II is true but Statement I is false
(c) Both Statement I and Statement II are true
(d) Both Statement I and Statement II are false

21. Anu, Manu, Tanu and Kanu were partners in a firm sharing profits and losses in the ratio of 2:1:2:1. They decided to share profits and losses in the ratio of 4:2:3:1 with effect from 1st April,2022. On this date, goodwill of the firm was valued at ₹1,20,000 and General Reserve appeared in the books at ₹36,000. 3
Pass necessary journal entries for the above transactions. Show your workings clearly.

22. On 1st April, 2022, the capital of the firm of Ashu and Madhav is ₹1,50,000. The normal rate of return on capital employed is 10%. Average profits of the firm are ₹23,500. Calculate goodwill of the firm based on three years purchase of super profits. 3

OR

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%. 3
The profits of the last four years were:

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

Calculate goodwill of the firm based on Capitalisation of last 3 years' super profit.

23. Rakshit and Malik are partners in a firm sharing profits and losses in the ratio of 4:1. On 1st April,2021 their capitals were ₹1,20,000 and ₹80,000 respectively. On 1st December,2021, they decided that the total capital of the firm should be ₹3,00,000 to be contributed by them in the ratio of 2:1. According to partnership deed, interest on capital is allowed to the partners @6% p.a. 3
Calculate interest on capital to be allowed for the year ending 31st March,2022.

24. Classify the following items under major heads and sub-heads (if any) in the Balance Sheet of a company as per Schedule III, Part I of the Companies Act,2013: 3

(a) Licenses and Franchise
(b) Loans Repayable on Demand
(c) Accrued Income

OR

Classify the following items under major heads and sub-heads (if any) in the Balance Sheet of a company as per Schedule III, Part I of the Companies Act,2013: 3
(a) Goodwill
(b) Unclaimed Dividends

(c) Bank Overdraft

25. The Current Ratio of a company is 2:1. State giving reasons, which of the following transactions would improve, reduce or not change the ratio: 3

(a) Purchased goods on credit ₹40,000

(b) Sale of furniture of ₹8,000 at a loss of ₹2,000

(c) Cash received from trade receivables ₹15,000

26. Ravi, Guru, Mani and Sonu were partners in a firm sharing profits in the ratio of the 2:2:2:1. On 31st January, 2023, Sonu retired. On Sonu's retirement the Goodwill of the firm was valued at ₹1,40,000. The new profit-sharing ratio among Ravi, Guru and Mani was agreed as 5: 1: 1. 3
Showing your workings clearly, pass necessary Journal entry for the treatment of Goodwill in the books of the firm on Sonu's retirement without opening goodwill account.

27. Vanshika and Shikha were partners in a firm with capitals of ₹1,00,000 and ₹80,000 respectively. They admitted Nisha on 1st April,2022 as a new partner for ¼ share in the future profits of the firm. Nisha brought ₹90,000 as her capital. Nisha acquired her share equally from Vanshika and Shikha. Calculate the value of goodwill of the firm and pass necessary journal entries on Nisha's admission, assuming that Nisha did not bring her share of goodwill premium in cash. Show the working clearly. 4

28. From the given Balance Sheet of Geox Ltd., prepare Common Size Balance Sheet: 4

Balance Sheet of Geox Ltd. as at 31st March, 2023

Particulars	Note No.	31.3.2023	31.3.2022
I-Equity and Liabilities:			
1. Shareholders' Funds			
(a) Share Capital		4,00,000	2,50,000

2. Non-Current Liabilities			
(a) Long-term Borrowings		2,00,000	1,50,000
3. Current Liabilities			
(a) Trade Payables		2,00,000	1,00,000
Total		8,00,000	5,00,000
II - Assets:			
1. Non-Current Assets (a) Fixed Assets/Property, Plant and Equipment and Intangible Assets		4,00,000	3,50,000
2. Current Assets (a) Inventories (b) Trade Receivables		2,00,000 2,00,000	70,000 80,000
Total		8,00,000	5,00,000

OR

Prepare a Comparative Statement Profit & Loss from the

following information:

Particulars	31.3.2026	31.3.2025
Revenue from Operations	12,50,000	10,00,000
Purchase of Stock-in-Trade	7,70,000	4,20,000
Changes in Inventories	(1,20,000)	80,000
Other Expenses	52,000	30,000
Other Income	6,000	5,000

29. Sudhir, Deepak and Naveen were partners in a firm sharing profits and losses in the ratio of 2:2:1. On 31st March,2022 their Balance Sheet was as under: 4

Balance Sheet of Sudhir, Deepak and Naveen as at 31.03.2022

Liabilities	₹	Assets	₹
Creditors	50,000	Land & Building	2,10,000
General Reserve	1,00,000	Machinery	1,90,000
Loans	1,20,000	Stock	30,000
Capitals:		Investments	1,70,000
Sudhir 1,60,000		Advertisement	
Deepak 1,50,000		Suspense A/c	1,20,000
Naveen 1,40,000	4,50,000		
	7,20,000		7,20,000

Sudhir died on 30th June, 2022. The partnership deed provided for the following, on the death of a partner:

(i) Goodwill of the firm was to be valued at 2.5 years purchase of average profits of the previous four years which were

₹1,80,000.
(ii) Sudhir's share of profit or loss till the date of death was to be calculated on the basis of sales. Sales for the year ended 31st March,2022 amounted to ₹4,00,000 and that from 1st April,2022 to 30th June, 2022 amounted ₹1,50,000. The profit for the year ended 31st March, 2022 was ₹1,00,000.
(iii) Interest on capital was to be provided @ 7% p.a.

Prepare Sudhir's capital account to be rendered to his executors.

30. Yuv and Veer were partners in a firm sharing profits and losses in the ratio of 3:1. Their Balance Sheet as on 31st March,2022 was as under: 6

Balance Sheet of Yuv and Veer as at 31.03.2022

Liabilities		₹	Assets		₹
Creditors		41,000	Plant &Machinery		60,000
General Reserve		80,000	Building		40,000
Outstanding Exp.		12,000	Investments		60,000
Capitals:			Stock		50,000
Yuv	79,000		Debtors	38,000	
Veer	48,000		(-) Provision		
		1,27,000	For doubtful		
			Debts	4,000	
					34,000
			Cash		16,000
		2,60,000			2,60,000

They decide to admit Yash in the firm on 1st April, 2022 for ¼ share in profits on the following terms:
(i) Yash will bring in proportionate capital and ₹4,000 as his share of goodwill premium in cash.
(ii) Investments were valued at ₹68,000.
(iii) Plant & Machinery were to be depreciated was to be

depreciated by 10%.
Prepare Revaluation Accounts and Partners' Capital Accounts

OR

On 31st March 2023, the Balance Sheet of Zoya and Zara who were sharing profits and losses in the ratio of 3: 2 was as follows: 6

Balance Sheet of Zoya and Zara as at 31.03.2023

Liabilities	₹	Assets	₹
Creditors	29,000	Goodwill	10,000
General Reserve	16,000	Plant &Machinery	30,000
Bills Payable	6,000	Land & Building	25,000
Capitals:		Stock	15,000
Zoya 50,000		Debtors 20,000	
Zara 35,000		(-) Provision	
	85,000	For doubtful	
		Debts 1,000	
			19,000
		Cash at Bank	9,000
		Profit & Loss	28,000
	1,36,000		1,36,000

They decided to admit Sara for 1/5th share on 1st April, 2023 in the firm on the following terms:
(a) Goodwill of the firm is valued at ₹28,000.
(b) Depreciate Plant and Machinery by 10%, appreciate Land and Building by 40%.
(c) The provision for doubtful debts was to be increased by ₹800.
(d) A liability of ₹1,000 included in the creditors is not likely to arise.
(e) New profit-sharing ratio between Zoya, Zara and Sara shall be 5:3:2 respectively.
Sara was to contribute capital equal to 1/5th of the total capital of Zoya and Zara after all adjustments.
You are required to prepare a Revaluation Account and

Partner's Capital Accounts.

31. Calculate Current Ratio and Liquid Ratio from the following: 6

	₹
Cash and Cash Equivalents.	40,000
Trade Receivables.	2,70,000
Inventories (Includes Loose Tools ₹30,000).	1,80,000
Prepaid Expenses.	20,000
Working Capital.	2,80,000

32. Reyansh, Aayushman and Sabhya were partners in a firm sharing profits and losses in the ratio of 5:3:2. Their Balance Sheet as on 31st March,2022 was as under: 6

Balance Sheet of Reyansh, Aayushman and Sabhya as at 31.03.2022

Liabilities		₹	Assets		₹
Sundry Creditors		2,20,000	Cash		1,60,000
General Reserve		1,20,000	Debtors	1,80,000	
Capitals:			(-) Provision For doubtful Debts	20,000	1,60,000
Reyansh	6,00,000		Stock		2,00,000
Aayushman	5,00,000		Machinery		6,00,000
Sabhya	3,00,000	14,00,000	Building		4,00,000
			Patents		1,20,000
			Profit & Loss A/c		1,00,000
		17,40,000			17,40,000

Reyansh retired on the above date and it was agreed that:
(i) Goodwill of the firm on Reyansh's retirement was valued at ₹12,00,000.
(ii) Aayushman and Sabhya will share future profits in the ratio of 2:3.

(iii) An unrecorded creditor of ₹40,000 will be taken into account.
(iv) Debtors of ₹30,000 will be written off as bad debts.
(v) Amount payable to Reyansh was to be transferred to his loan account.
Pass necessary journal entries for the above transactions in the books of the firm.

33. Aadish and Shreyansh were partners in a firm sharing profits and losses in the ratio of 3:2. On 31st March, 2022 their Balance Sheet was as follows: 6

Balance Sheet of Aadish and Shreyansh as at 31.03.2022

Liabilities	₹	Assets	₹
Creditors	90,000	Cash at Bank	20,000
Mrs. Aadish loan	30,000	Stock	24,000
Shreyansh's loan	30,000	Investments	30,000
General Reserve	45,000	Debtors 20,000	
Capitals:		(-) Provision	
Aadish 1,00,000		For doubtful	
Shreyansh 97,000		Debts 2,000	
	1,97,000		18,000
		Plant	1,00,000
		Advertisement	
		Suspense A/c	2,00,000
	3,92,000		3,92,000

The firm was dissolved on 31st March, 2022 on the following terms:
(i) Debtors realised ₹17,000 and plant realized 10% more than the book value.
(ii) Aadish promised to pay Mrs. Aadish's loan and took away stock at ₹20,000.

(iii) Shreyansh took away half of the investments at a discount of 10%. Remaining investments realized ₹4,500.
(iv) Creditors were paid off at a discount to ₹7,000.
(v) Expenses of realization amounted to ₹7,000.
Prepare Realisation Account.

OR 6

Angad, Raman and Harshit were partners in a firm. They decided to dissolve their firm. Pass necessary journal entries for the following after various assets (other than cash and bank) and the third-party liabilities have been transferred to Realisation Account:

(i) There was a stock of ₹90,000. Raman took over 50% of the stock a 10% discount and remaining stock was sold at 40% profit on book value.
(ii) Profit and Loss A/c was showing a debit balance of ₹15,000 which was distributed among the partners.
(iii) A machinery which was not recorded in the books was sold for ₹2,000
(iv) Angad was paid only ₹5,000 (in full settlement) for his loan to the firm which amounted to ₹5,500.
(v) Realisation expenses amounting to ₹5,000 paid by Harshit.
(vi) Sudhir, an unrecorded creditor of ₹40,000 accepted an unrecorded vehicle of ₹20,000 at ₹25,000 and the balance was paid to him in cash.

34. Sarah and Varsha were partners in a firm sharing profits and losses in the ratio of 3: 2. Their Balance Sheet as at 31st March, 2023 was as follows: 6

Balance Sheet of Sarah and Varsha as at 31st March, 2023

Liabilities		₹	Assets		₹
Creditors		50,000	Plant & Machinery		2,00,000
Provident Fund		1,20,000	Stock		30,000
Workmen's Compensation Fund		20,000	Debtors	50,000	
			(-) Provision For doubtful Debts	5,000	45,000
Capitals:					
Sarah	60,000		Cash at Bank		25,000
Varsha	50,000	1,10,000			
		3,00,000			3,00,000

On 1st April, 2023, they decided to admit Tasha as a new partner for 1/4 * th share in the profits of the firm on the following terms:

(i) Tasha brought ₹ 40,000 as her capital and ₹20,000 as her share of premium for goodwill.

(ii) Plant and Machinery was valued at ₹1,90,000.

(iii) An item of ₹20,000, included in creditors, is not likely to be claimed and should be written off.

(iv) Capitals of the partners in the new firm are to be in the new profit-sharing ratio on the basis of Tasha's capital, by bringing or paying off cash, as the case may be.

Prepare Revaluation Account and Partners' Capital Accounts.

****

CODE-B

Name: _____ Sec: ____ Roll No.: _____

BURNPUR RIVERSIDE SCHOOL, BURNPUR
HALF YEARLY EXAMINATION: [2026-2027]
ACCOUNTANCY
CLASS: XII

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

==========

General Instruction:
Read the following instructions very carefully and strictly follow them.
(i) This question paper consists of **34** questions. All questions are **compulsory.**
(ii) Question no. 1-20 are multiple choice questions. Each question carries **1** mark.
(iii)Question no. 21-26 are short answer type- I questions. Each question carries **3** marks.
(iv) Question no. 27-29 are long answer type-I questions. Each question carries **4** marks.
(v) Question no. 30-34 are long answer type -II questions. Each question carries **6** marks.

1. Vibha and Asha are partners in a firm. Asha withdrew ₹1,000 at the end of each quarter during the year ended 31st March, 2022. Interest on drawings will be calculated for an average period of: 1

(a) 6 months (b) 4.5 months
(c) 7.5 months (d) 6.5 months

2. Assertion (A): Change in the profit-sharing ratio among existing partners results in a change in their existing agreement 1
Reason (R): Change in the profit-sharing ratio among existing partners results in a gain of additional share in future profits for some partners while a loss of a part thereof, for the other partners.
Select the correct answer from the following:
(a) Both Assertion (A) and Reason (R) are correct.
(b) Assertion (A) is correct, but Reason (R) is incorrect.
(c) Only Reason (R) is correct

(d) Both Assertion (A) and Reason (R) are incorrect.

3. Nidhi, Kunal and Kabir are partners in a firm sharing profits in the ratio of 2: 1: 2. Kunal retired and the balance in his capital account after making necessary adjustments on account of reserves, revaluation of assets and reassessment of liabilities was ₹80,000. Nidhi and Kabir agreed to pay him ₹1,00,000 in full settlement of his claim. Kunal's share of goodwill of the firm, on his retirement was: 1

(a) ₹4,000 (b) ₹20,000
(c) ₹16,000 (d) ₹1,80,000

OR

Amay, Bina and Chander are partners in a firm with capital balances of ₹50,000, ₹70,000 and ₹80,000 respectively on 31st March, 2022. Amay decides to retire from the firm on 31st March, 2022. With the help of the information provided, calculate the amount to be paid to Amay on his retirement. 1
There existed a general reserve of ₹7,500 in the balance sheet on that date.
The goodwill of the firm was valued at ₹30,000. Gain on revaluation was ₹24,000.

(a) ₹88,500 (b) ₹90,500
(c) ₹65,375 (d) ₹70,500

4. Amit and Sumit were partners in firm with fixed capitals of ₹6,00,000 and ₹4,00,000 respectively. Kavi was admitted as a new partner for 1/5th share in the profit of the firm. Kavi brought ₹40,000 as his share of goodwill premium and ₹3,00,000 as his capital. The amount of Goodwill premium credited to Sumit will be: 1

(a) ₹20,000 (b) ₹24,000
(c) ₹16,000 (d) ₹40,000

OR

Kishore and Bimal are partners in a firm sharing profits and losses in the ratio of 4:3. Nand is admitted as a new partner in the firm 1/4th share in the profits. Kishore and Bimal decide to share profits and losses equally in the future. The sacrificing ratio of Kishore and Bimal will be: 1

(a) 1:1 (b) 4:3
(c) 11:3 (d) 3: 11

5. Total assets of a partnership firm, which was dissolved were ₹30,00,000 and its total liabilities were ₹6,00,000. Assets were realised at 80% and liabilities were settled at 5% less. If dissolution expenses were ₹30,000, the profit or loss on dissolution was: 1

(a) Profit ₹18,00,000 (b) Loss ₹6,00,000
(c) Profit ₹6,00,000 (d) Loss ₹18,00,000

6. Which of the following is a tool of Analysis of Financial Statements? 1

(a) Statement of Profit & Loss (b) Ratio Analysis
(c) Balance Sheet (d) Notes to Accounts

OR

In a Company's Balance Sheet ---------- appear under the head 'non-current assets'. 1

(a) Goodwill (b) Patent
(c) Vehicle (d) All of the above

7. Isha and Naman were partners in a firm sharing profits and losses in the ratio of 2:3. With effect from 1stApril, 2022 they agreed to share profits and losses equally. Due to change in the profit-sharing ratio, Isha's gain or sacrifice will be: 1

(a) Sacrifice 1/10 (b) Gain 1/10
(c) Sacrifice 2/5 (d) Gain 2/5

OR

Value of goodwill of a firm at 3 times of super profits is ₹54,000. Average profits of the firm are ₹60,000 (after an abnormal loss of ₹8,000) Normal rate of return is 10%. Capital invested in the firm will be 1

(a) ₹3,40,000 (b) ₹5,00,000
(c)₹4,20,000 (d) ₹8,60,000

8. Trade Receivable ₹40,000; Trade Payable ₹60,000; Prepaid Expenses ₹10,000; Inventory ₹1,00,000; Goodwill ₹15,000. Current Ratio will be: 1

(a) 1:2 (b) 2:1
(c) 2.33:1 (d) 2.5:1

9. Vikram and Sumit were partners in a firm sharing profits and losses in the ratio of 2: 1. The capitals of Vikram and Sumit after all adjustments were ₹50,000 and ₹40,000 respectively. They admitted Jayant as a partner for share in the profits of the firm. Jayant brought proportionate capital in the firm. The amount of capital brought in by Jayant was: 1

(a) ₹45,000 (b) ₹30,000
(c) ₹60,500 (d) ₹90,000

OR

Rani, Maharani and Laxmi were partners in a firm sharing profits and losses in the ratio of 3: 3: 2. On 1st April, 2024 they admitted Reema as a new partner 1/5th share in the profits of the firm. Reena acquired her share from Rani and Maharani in the ratio of 3: 2. The new profit-sharing ratio between Rani, Maharani, Laxmi and Reena will be 1

(a) 51:59:40:50 (b) 51:59:50:40
(c) 59:51:50:40 (d) 40:51:59:50

10. Anu, Monu and Sonu were partners in a firm sharing profits in the ratio of 5:3:2. Monu died on 1st January, 2022. Anu and Sonu will acquire Monu's share in the ratio of: 1

(a) 1:1 (b) 3:2
(c) 5:3 (d) 5:2

11. The tool of analysis of financial statements which indicates the trend and direction of financial position and operating result is ---------- 1

(a) Comparative Statement

(b) Common-size Statement

Cash flow analysis

(d) Ratio analysis

Read the following hypothetical situation and answer question no. 12and 13 on its basis:

Rudra, Dev and Shiv were partners in a firm sharing profits in the ratio of 5:3:2. Their fixed capitals were ₹6,00,000, ₹4,00,000 and ₹2,00,000 respectively. Besides his capital Shiv had given a loan of ₹75,000 to the firm. Their partnership deed provided for the following:

(i) Interest on capital @ 9% p.a.

(ii) Interest on partner's drawings @ 12% p.a.

(iii) Salary to Rudra ₹30,000 per month and to Dev ₹40,000 per quarter.

(iv) Interest on Shiv's loan @ 9% p.a.

During the year Rudra withdrew ₹50,000 at the end of each quarter; Dev withdrew ₹50,000 in the beginning of each half year and Shiv withdrew ₹70,000 at the end of each half year. The profit of the firm for the year ended 31-3-2022 before allowing interest on Shiv's loan was ₹7,06,750.

12. How much amount of net profit will be transferred to Profit and Loss Appropriation A/c? 1

(a) ₹7,06,750 (b) ₹7,02,250
(c) ₹7,00,000 (d) ₹7,13,000

13. What will the amount of interest on drawings of the partners? 1

(a) Rudra ₹2,250; Dev ₹4,500 and Shiv ₹2,100
(b) Rudra ₹9,000; Dev ₹9,000 and Shiv ₹4,200
(c) Rudra ₹4,500; Dev ₹4,500 and Shiv ₹2,100
(d) Rudra ₹24,000: Dev ₹12,000 and Shiv ₹16,800

14. Gopal, Krishna and Govind are partners sharing profits and losses in the ratio of 5:4: 3. Krishna retired on 1st April, 2022. Gopal and Govind purchased her share of profit by giving her ₹1,20,000. ₹80,000 being paid by Gopal and ₹40,000 by Govind. The gaining ratio will be: 1

(a) 5:3 (b) 4:3
(c) 1:1 (d) 2:1

15. Ram and Mohan were partners with fixed capitals of ₹3,00,000 and ₹2,00,000 respectively. As per their partnership deed, interest on capital was allowed @ 10% p.a. Net profit for the year ended 31 March, 2022 was ₹30,000. The amount of interest on capital was credited to each partner's current account for the year ended 31st March, 2022 was: 1

(a) Ram ₹30,000 and Mohan ₹20,000
(b) Ram ₹20,000 and Mohan ₹10,000
(c) Ram ₹18,000 and Mohan ₹12,000
(d) Ram ₹30,000 and Mohan Nil

16. A Company's Revenue from Operations are ₹20,00,000. Cost of Revenue from Operations are ₹14,00,000 and indirect expenses are ₹2,00,000. What is the amount of Gross Profit? 1

(a) ₹18,00,000 (b) ₹4,00,000
(c) ₹8,00,000 (d) ₹6,00,000

OR

Revenue from Operations ₹8,00,000. Gross Profit Ratio 32%. Indirect Expenses 10% of Gross Profit and Income Tax 40%. What will be the amount of profit after tax? 1

(a) ₹1,38,240 (b) ₹1,02,400
(c) ₹ 92,160 (d) ₹1,53,600

17. Ria and Surbhi were partners in a firm sharing profits and losses in the ratio of 3:2. With effect from 1st April, 2022, they agreed to share profits equally. The goodwill of the firm was valued at ₹3,00,000. The adjustment will be done by which of 1

the following transaction?

(a) Debiting Surbhi's account by ₹30,000 and crediting Ria's account by ₹30,000.
(b) Debiting Ria's account by ₹30,000 and crediting Surbhi's account by ₹30,000.
(c) Debiting Surbhi's account by ₹3,000 and crediting Ria's account by ₹3,000.
(d) Debiting Ria's account by ₹3,000 and crediting Surbhi's account by ₹3,000.

OR

Due to change in the profit-sharing ratio, Anisha's gain is 1/5th while Harit's sacrifice is 1/5th. They decided to adjust the following without affecting their book values, by passing a single adjustment entry: 1

General Reserve	₹20,000
Profit and Loss Account (Dr.)	₹30,000

The necessary adjustment entry will be:

(a) Debit Anisha's capital account by ₹2,000 and Credit Harit's capital account by ₹2,000.
(b) Debit Anisha's capital account by ₹10,000 and Credit Harit's capital account by ₹10,000.
(c) Debit Harit's capital account by ₹2,000 and Credit Anisha's capital account by ₹2,000.
(d) Debit Harit's capital account by ₹10,000 and Credit Anisha's capital account by ₹10,000.

18. Monu and Sonu were partners sharing profits in the ratio of 2:3. They admitted Ram as a new partner for 3/5th share in profits which he acquired 1/5th from Monu and 2/5th from Sonu. The new profit-sharing ratio of Monu, Sonu and Ram will be: 1

(a) 3:1:1 (b) 1:1:3
(c) 2:3:1 (d) 2:3:3

OR

C, D and E were partners sharing profits in the ratio of 5:3:2. They admitted F as a new partner for 1/4th share of profits which was sacrificed by C, D, E in the ratio of 2:1:2. C's new share in the profits will be: 1

(a) 2/5 (b) 3/5
(c) 3/10 (d) 4/20

19. Ideal Quick Ratio is: 1

(a) 1:1 (b) 1:2
(c) 1:3 (d) 2:1

20. Statement 1: Revaluation Account records only the changes in the values of assets and liabilities. 1
Statement 2: Realisation Account records all assets and liabilities at the time of dissolution of a partnership firm.

(a) Statement I is true but Statement II is false
(b) Statement II is true but Statement I is false
(c) Both Statement I and Statement II are true
(d) Both Statement I and Statement II are false

21. Mita, Geeta and Mohit were partners in a firm sharing profits and losses in the ratio of 5:3:2. With effect from 1st April, 2022, they mutually agreed to share profits and losses in the ratio of 2:2:1. It was agreed that: 3
(i) Goodwill of the firm was valued at ₹1,40,000.
(ii) Profit on revaluation of assets and re-assessment of liabilities amounted to ₹1,20,000.
Pass necessary journal entries for the above transactions in the books of the firm. Show your workings clearly.

22. A & B were partners in a firm sharing profits equally. Their capitals were: A ₹1,20,000 and B ₹80,000. The annual rate of interest is 20%. The profits for the firm for the last three years were ₹ 34,000; ₹38,000, ₹30,000. They admitted C as a new partner. On C's admission the goodwill of the firm was valued 3

at 2 years purchase of super profits.
Calculate the value of goodwill of the firm on C's admission.

OR

A and B have been carrying on business in partnership with fixed capitals of ₹2,40,000 and ₹1,20,000 respectively and sharing profits in the same proportion. They decided that with effect from April 1, 2024 they would share profits and losses in the ratio of 3: 2. For this purpose goodwill is to be valued at three years' purchase of the average of preceding three years' profits. The profits for the years ending 31st March were 2021: ₹75,000; 2022: ₹60,000; 2023: ₹80,000 and 2024 ₹1,30,000. Give the necessary journal entry. 3

23. Arun and Barun were partners sharing profits in the ratio of 3:2. Their capitals were ₹50,000 and ₹30,000 respectively. Partnership deed provided for interest on capital @6% p.a. to Arun and Barun and quarterly salary of ₹1,000 to Barun. Arun had given a loan of ₹1,00,000 on 1st October,2021 to the firm without any agreement about interest. For the year 2021-22, the profits earned were ₹26,800. 3

Prepare Profit and Loss Appropriation Account of the firm for the year ended 31st March, 2022.

24. Under which major heads and sub-heads will the following items be presented in the Balance Sheet of the company as per Schedule III, Part I of the Companies Act,2013: 3

(i) Bills Receivable
(ii) Securities premium reserve
(iii) Calls-in-advance

OR

Under which major heads and sub-heads will the following items be presented in the Balance Sheet of the company as per Schedule III, Part I of the Companies Act,2013: 3

(i) Short-term loans
(ii) Computer Software
(iii) Income received in Advance

25. The Current Ratio of a company is 2.5:1. State giving reasons, which of the following suggestion would improve, reduce or not change the ratio: 3

(a) Cash collected from trade receivable
(b) Issue of shares
(c) Sale machinery against cheque

26. Ram, Ravi and Rohan were partners sharing profits in the ratio of 2:3:1. On 31st March, 2023, their Balance Sheet was as follows: 3

Balance Sheet of Ram, Ravi and Rohan as on 31.3.2023

Liabilities		₹	Assets		₹
Sundry Creditors		3,62,000	Cash		14,000
General Reserve		18,000	Bank		2,96,000
Capitals:			Stock		80,000
Ram	1,00,000		Debtors	3,00,000	
Ravi	2,00,000		(-) Provision	10,000	
Rohan	3,00,000				2,90,000
		6,00,000	Land		2,50,000
			Investments		50,000
		9,80,000			9,80,000

Rohan died on 30th September, 2023. On the death of a partner the partnership deed provided for the following:
(i) Goodwill was to be valued at two years purchase of average profit of last three years. The profits for the last three years were 2020-21 ₹45,000, 2021-22 ₹90,000 and 2022-23 ₹1,35,000.
(ii) Deceased partner's share of profit till the date of his death will be calculated on the basis of average profit of last three years.

Prepare Rohan's Capital Account to be rendered to his executors.

27. P. Q and R share profits in the ratio of 5:3:2. S was admitted partnership. S brings in ₹30,000 as his capital. S is entitled for $1/5^{th}$ share in profits which he acquires equally from P. Q and R. Goodwill of the firs is to be valued at three years' purchase of last four years' average profits. The profits of the last four years are ₹32,000, ₹38,000, ₹35,000, ₹31,000 respectively. S cannot bring goodwill in cash. Goodwill already appears in the books at ₹50,000. 4

Give Journal entries.

28. From the following information, prepare a Comparative Statement of Profit and Loss for the year ended 31st March, 2022 and 2023: 4

Particulars	Note No.	2022-23 (₹)	2021-22 (₹)
Revenue from operations		10,00,000	8,00,000
Employee benefit expenses		2,50,000	1,00,000
Other expenses		4,50,000	4,00,000
Tax rate 50%			

OR

From the following information, prepare a Common Size Statement of Profit and Loss: 4

Particulars	31.3.2024 (₹)	31.3.2023 (₹)
Revenue from operations	40,00,000	25,00,000
Purchase of stock in trade	33,60,000	18,50,000
Changes in inventories	(2,00,000)	1,50,000
Other expenses	1,20,000	1,00,000
Other income	1,60,000	50,000

29. Meena, Beena and Veena were partners in a firm sharing profits and losses equally. Their Balance Sheet as on 31st March, 2022 was as follows: 4

Balance Sheet of Meena, Beena and Veena as at 31.03.2022

Liabilities		₹	Assets	₹
Sundry Creditors		30,000	Plant &	
General Reserve		30,000	Machinery	2,40,000
			Stock	60,000
Capitals:			Sundry Debtors	35,000
Meena	1,50,000		Cash at Bank	50,000
Beena	1,00,000			
Veena	75,000			
		3,25,000		
		3,85,000		3,85,000

Veena died 30th June,2022. According to the partnership deed, the executors of the deceased partner were entitled to:
(i) Balance in Capital account.
(ii) Salary till the date of death @ ₹25,000 p.a.
(iii) Share of goodwill calculated on the basis of twice the average profits pf past three years.
(iv) Share of profit from the closure of last account till the date of death on the basis of average of three completed years' profit before death.
(v) Profits for 2019-20, 2020-21 and 2021-22 were ₹1,20,00, ₹90,000 and ₹1,50,000 respectively.
Veena withdrew ₹15,000 on 1st June, 2022 for paying her daughter's school fees.
Prepare Veena's capital account to be rendered to her executors.

30. Madhav and Giridhari were partners in a firm sharing profits and losses in the ratio of 3:1. Their Balance Sheet as at 31st March, 2022 was as follows: 6

Balance Sheet of Madhav and Giridhari as at 31.03.2022

Liabilities	₹	Assets	₹
Creditors	1,90,000	Plant &Machinery	4,70,000
Workman		Investment	1,10,000
Compensation		Stock	1,40,000
Fund	60,000	Debtors 1,20,000	
Employee		(-) Provision	
Provident Fund	1,10,000	For doubtful	
Capitals:		Debts 10,000	
Madhav 3,00,000			1,10,000
Giridhari 2,00,000		Cash	30,000
	5,00,000		
	8,60,000		8,60,000

On 1st April, 2022, they admitted Jyoti into partnership for 1/4th share in the profits of the firm. Jyoti brought ₹1,86,000 as her capital and ₹40,000 as her share of goodwill premium in cash. The following terms were agreed upon:

(i) Stock was found undervalued by ₹23,000.
(ii) 20% of the investments were taken over by Giridhari at book value.
(iii) Claim on account of workmen's compensation amounted to ₹70,000, which was to be paid later.
(iv) Creditors included a sum of ₹27,000 which was not likely to be claimed.
Prepare Revaluation A/c and Partners' Capital Accounts on Jyoti's admission.

OR 6

Ashish and Nimish were partners in a firm sharing profits and losses in the ratio of 3: 2. On 31st March, 2019 their Balance Sheet was as follows:

Balance sheet of Ashish and Nimish as at 31.3.2019

Liabilities		₹	Assets		₹
Creditors		1,10,000	Plant &Machinery		2,90,000
Workman			Furniture		2,20,000
Compensation			Stock		1,40,000
Reserve		20,000	Debtors	90,000	
General Reserve		50,000	(-) Provision		
Capitals:			For doubtful		
Ashish	3,10,000		Debts	1,000	
Nimish	2,90,000				89,000
		6,00,000	Cash		41,000
		7,80,000			7,80,000

On 1st April, 2019, Geeta was admitted into the partnership for 1/4th share in the profits on the following terms:
(i) Goodwill of the firm was valued at ₹2,00,000.
(ii) Geeta brought ₹3,00,000 as her capital and her share of goodwill
(iii) Bad debts amounted to ₹2,000. Create a provision for doubtful debts @5% on Sundry debtors.
(iv) Furniture was found undervalued by ₹65,400.
(v) Stock was taken over by Nimish for ₹1,30,000.
(vi) The liability against workmen's compensation reserve was determined at ₹30,000.
(vii) After the above adjustments, the capitals of Ashish and Nimish were to be adjusted taking Geeta's capital as the base. Excess or shortage was to be adjusted by introducing or withdrawing necessary cash.
Prepare Revaluation Account, Partners' Capital Accounts of

the firm after Geeta's admission.

31. Calculate Current Ratio from the following: 6
(i) Working Capital ₹24,80,000; Current Assets ₹26,00,000; Inventory ₹4,00,000 and Trade Receivables ₹1,50,000.
(ii) Current Ratio 2: 1, Quick Ratio 1.5: 1, Current Liabilities ₹1,60,000. Calculate Current Assets, Quick Assets and Inventory.

32. Radhika, Ridhima and Rupanshi were partners in a firm sharing profits and losses in the ratio of 3:5:2. On 31st March, 2022, their Balance Sheet was as follows: 6

Balance Sheet of Radhika, Ridhima and Rupanshi as at 31.03.2022

Liabilities	₹	Assets	₹
Sundry Creditors	60,000	Buildings	5,00,000
General Reserve	40,000	Investments	30,000
		Stock	80,000
Capitals:		Debtors	40,000
Radhika 3,00,000		Cash	50,000
Ridhima 2,00,000			
Rupanshi 1,00,000			
	6,00,000		
	7,00,000		7,00,000

Ridhima retired on the above date and it was agreed that:
(i) Goodwill of the firm be valued at ₹3,00,000
(ii) Building was valued at ₹6,20,000
(iii) Capitals of the new firm was fixed at ₹5,00,000, which will be in the new profit-sharing ratio of the partners; the necessary adjustments for thus purpose were to be made by opening current accounts of the partners.
Prepare Revaluation A/c and Partners' Capital Accounts on Ridhima's retirement.

33. Pass the necessary journal entries for the following transactions on the dissolution of partnership firm of Tina and Rina after various assets (other than cash) and external liabilities have been transferred to Realisation Account: 6

(i) An unrecorded asset of ₹18,000 was taken over by Tina at ₹16,000.

(ii) Rina agreed to pay her brother's loan of ₹23,000.

(iii) Stock of ₹30,000 was taken over by a creditor of ₹40,000 in full settlement.

(iv) Expenses of dissolution ₹40,000 were paid by Rina.

(v) Creditors were paid ₹18,800 in full settlement of their account of ₹20,000.

(vi) Tina's loan of ₹15,000 was paid through a cheque.

OR

Sonia and Rohit are partners in a firm sharing profits and losses in the ratio of 3:2. On 31st March, 2023 their Balance Sheet was as follows: 6

Balance Sheet of Sonia and Rohit as at 31.3.2023

Liabilities		₹	Assets		₹
Creditors		70,000	Cash at Bank		60,000
Bank loan		2,20,000	Stock		60,000
Sonia's loan		1,30,000	Furniture		80,000
General Reserve		80,000	Debtors	1,25,000	
Capitals:			(-) Provision		
Sonia	70,000		For doubtful		
Rohit	90,000		Debts	5,000	
		1,60,000			1,20,000
			Machinery		1,40,000
			Building		2,00,000
		6,60,000			6,60,000

The firm was dissolved on the above date on the following terms:

(i) Machinery realized at 80% and furniture was realised at 60% less than the book value.

(ii) Debtors of ₹5,000 proved bad and remaining debtors realised 90% only.

(iii) Creditors took away half of the stock in full settlement of their account.

(iv) Remaining stock realised ₹72,000

(v) Realisation expenses amounting to ₹14,000 were paid by Rohit.

Prepare Realisation Account.

34. Bhumi and Chavi were partners in a firm sharing profits and losses in the ratio of 5 3. They admitted Aditi in the firm on 1 1st April, 2022. On that date their Balance Sheet was as follows: 6

Balance Sheet of Bhumi and Chavi as at 1st April, 2022

Liabilities		₹	Assets	₹
Creditors		60,000	Cash	50,000
Bank loan		60,000	Stock	1,50,000
General Reserve		80,000	Furniture	50,000
Capitals:			Debtors	2,30,000
Bhumi	3,20,000			
Chavi	3,40,000		Machinery	3,80,000
		6,60,000		
		8,60,000		8,60,000

Aditi was admitted in the firm with 1/3 share in profits on the following terms:
(i) Aditi will bring ₹3,00,000 as her capital.
(ii) Aditi will bring her share of goodwill premium in cash. Goodwill of the firm was valued on the basis of two years purchase of average profits of the last three years. Average profits of the last three years were ₹ 60,000.
(iii) Machinery was revalued at ₹4,60,000.
(iv) The capitals of Bhumi and Chavi were adjusted on the basis of Aditi's capital by opening current accounts.
Prepare Revaluation Account and Partners' Capital Accounts.

****

Name:_____Sec:_____ Roll No:_____

CODE: A

BURNPUR RIVERSIDE SCHOOL,BURNPUR
HALF YEARLY EXAMINATION [2026-2027]
BIOLOGY (044)
CLASS XII

Time 3 HOURS **Maximum Marks : 70**

==========

General Instructions:

i All questions are compulsory.

ii The question paper contains five sections-A, B, C, D and E. There are 33 questions in the question paper.

iii **Section A** has 16 questions of 1 mark each. **Section B** has 05 questions of 2 marks each. **Section C** has 07 questions of 3 marks each. **Section D** has 02 case based question carries 4 marks each. It has three sub-questions (a),(b and (c).Parts (a) and (b) are compulsory .An internal choice has been provided in part (c), one has to attempt any one of the choices and **Section E** has 03 questions of 5 marks each.

iv There is no overall choice. However, internal choices have been provided in some questions. A student has to attempt only one of the alternatives in such questions.

v Wherever necessary, neat and properly labeled diagrams should be drawn.

==========

SECTION A

1. Which one of the following makes pollen grains highly resistant to acids and temperature? 1

A) Callose
B) Lignin
C) Cellulose
D) Sporopollenin.

2. The temperature maintained by the scrotum is necessary for spermatogenesis. What is this temperature relative to the normal internal body temperature? 1

A) 2–2.5°C higher

B) 2–2.5°C lower

C) 5°C lower

D) Equal to the internal body temperature

3. Intrauterine Devices (IUDs) are categorized into non-medicated, copper-releasing, and hormone-releasing types. Which of the following statements correctly pairs the specific IUD with its primary cellular or biochemical mechanism of action? 1

(A) Lippes Loop releases Cu^{2+} ions that suppress sperm motility and inhibit fertilizing capacity.

(B) CuT increases phagocytosis of sperms within the uterus while Cu^{2+} ions suppress sperm motility.

(C) LNG-20 acts exclusively by causing physical obstruction to the entry of sperms through the cervical canal without affecting the endometrium.

(D) Progestasert releases synthetic estrogen which renders the uterus suitable for premature implantation.

4. A clinical case involves a female patient with fully functional ovaries and normal endocrine cycles, but bilateral fallopian tube blockage due to past pelvic inflammatory disease. Her husband has normal semen parameters. Which of the following Assisted Reproductive Technology (ART) protocols is most appropriate? 1

(A) Gamete Intra Fallopian Transfer (GIFT)

(B) Intrauterine Insemination (IUI)

(C) In Vitro Fertilization followed by Intra Uterine Transfer (IVF-IUT)

(D) Artificial Insemination (AI) into the cervical canal

5. In a monohybrid cross of Antirrhinum sp. (snapdragon) between a true-breeding red-flowered plant (RR) and a white-flowered plant (rr), what is the phenotypic ratio in the F2 generation? 1

(A) 3 Red : 1 White

(B) 1 Red : 2 Pink : 1 White

(C) All Pink

(D) 9 Red : 3 Pink : 3 White : 1 Yellow

6. In the Hershey-Chase experiment, radioactive isotope 35 S was used to label: 1

A)Viral DNA

B)Bacterial DNA

C)Viral protein coat

D)Bacterial Cell Wall

7. **What is the term used by Hugo de Vries to describe single-step large mutations causing speciation?** 1

(A) Natural selection

(B) Saltation

(C) Adaptive radiation

(D) Founder effect

8. **Widal test is used for the diagnostic confirmation of which of the following diseases?** 1

(A) Malaria (B) Pneumonia (C) Typhoid (D) Amoebiasis

9. **Large holes in 'Swiss cheese' are formed due to the production of a large amount of CO_2 by which bacterium?** 1

(A) Propionibacterium sharmanii

(B) Lactobacillus

(C) Saccharomyces cerevisiae

(D) Acetobacter aceti

10. Which of the following does not hold true for restriction enzymes? 1

A)It recognises a palindromic sequence
B)It is an endonuclease
C)It is isolated from virus
D)It can produce the same kind of sticky ends in different DNA molecules.

11. How many peptide chains are present in insulin? 1

A)2 B)4 C)6 D)8

12. Cry protein encoded by CryI Ab controls 1

A)Cotton bollworm
B)Corn borer
C)Tobacco budworm
D)Mosquito

Question 13 to 16 consists of two statements-Assertion (A) and Reason (R).Answer these questions selecting the appropriate options given below:

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

d .A is false but R is true.

13. **Assertion (A):** In eukaryotic transcription, the primary transcript (hnRNA) undergoes capping and tailing processing steps. 1

Reason (R): Capping involves the addition of adenylate residues at the 5'-end of the transcript.

14 Assertion (A): The malarial parasite Plasmodium requires two hosts—human and mosquito—to complete its life cycle. 1

Reason (R): Sexual reproduction of Plasmodium occurs in the human liver cells, while asexual reproduction occurs inside the mosquito's gut.

15 Assertion (A): The greater the BOD (Biochemical Oxygen Demand) of waste water, the more is its polluting potential. 1

Reason (R): BOD measures the rate of uptake of oxygen by microorganisms in a sample of water, which indirectly measures the amount of organic matter present in it.

16 Assertion:-plasmids are extrachromosomal DNA 1

Reason:-Plasmid are found in bacteria and are useful in genetic engineering.

SECTION B

17. What is meant by monosporic development of a female gametophyte? 2

18. Distinguish spermiogenesis and spermiation. 2

OR

State the functional role of the placenta as an endocrine tissue by listing at least three hormones produced exclusively or primarily during pregnancy.

19. Explain the chromosomal mechanism of sex determination in honey bees. Why are male honey bees said to have no father and no son. 2

20. Differentiate between homologous and analogous structures with one example of each. 2

OR

State two key concepts of the Darwinian theory of evolution.

21. Explain with the help of an example the relationship between restriction endonuclease and a pallindromic sequence. 2

SECTION C

22. Define Apomixis and explain its commercial significance in the agricultural industry. 3

23. Explain the concept of ZIFT? How is IUT different from it? 3

24. How many types of RNA polymerases are there in a eukaryotic cell? Mention the steps of formation of mRNA from hn RNA. 3

OR

Briefly explain the features of Genetic Code

25. What is adaptive radiation? Explain giving the example of Darwin's finches on the Galapagos Islands. 3

26. Differentiate between active immunity and passive immunity. Give one suitable example of each. 3

27. "A very small sample of tissue or even a drop of blood can help determine paternity". Provide a scientific explanation to substantiate the statement. 3

28. How did the process of RNA interference help to control the nematode from infecting the roots of tobacco plants? Explain. 3

SECTION D (Case Based)

29. ***A pedigree analysis is a strong tool utilized in human genetics to trace the inheritance of a specific trait, abnormality, or disease across generations. Mendelian disorders in human beings are determined by mutation/alteration in a single gene. Examples include Sickle-cell anaemia, Haemophilia, Phenylketonuria, and Thalassemia. Sickle-cell anaemia is an autosome-linked recessive*** 4

trait where a single base substitution occurs at the sixth codon of the beta-globin gene from GAG to GUG. This leads to the substitution of Glutamic acid by Valine, causing the red blood cells to change from a normal biconcave disc shape to an elongated sickle-like structure under low oxygen

a) What type of mutation causes Sickle-cell anaemia at the molecular level (point mutation or frameshift mutation)? (1)

b Which amino acid is replaced, and by which amino acid, at the 6th position of the β-globin chain in Sickle-cell anaemia? (1)

c)Differentiate between Sickle-cell anaemia and Thalassemia (2)

OR

A woman who is a carrier for Haemophilia (X H X h) marries a normal man (X H Y). Calculate the probability (percentage) of their sons being haemophilic. (2)

30. ***Acquired Immuno Deficiency Syndrome (AIDS) was first reported in 1981. It is caused by the Human Immunodeficiency Virus (HIV), which belongs to a group of viruses called retroviruses having an RNA genome enclosed within a protein coat. Once inside the human body, the virus enters macrophages and helper T-lymphocytes (TH). Inside these host cells, viral RNA produces viral DNA with the help of an enzyme. The progeny viruses released into the blood attack other helper T-cells, leading to a progressive reduction in their count. Consequently, the infected person becomes highly susceptible to opportunistic infections by bacteria, fungi, and parasites*** 4

a)Name the enzyme that helps the retrovirus convert its RNA genome into viral DNA. (1 Mark)

b) Name the widely used diagnostic test for detecting AIDS. (1)

c)Why is the macrophage cell in an HIV-infected individual referred to as an 'HIV factory'? Explain briefly. (2)

OR

State two preventative steps recommended by organisations like NACO/WHO to prevent the spread of HIV infection. (2)

SECTION E

31. Describe the microscopic structure of a seminiferous tubule, specifying the types of cells found inside and outside the tubule, along with their respective functions. 5

OR

Outline the major events and hormonal changes that occur during the different phases of the menstrual cycle in human females

32. Describe the semi-conservative mode of DNA replication as proven by Meselson and Stahl using 15N and 14N isotopes of ammonium chloride. 5

OR

Explain the scheme of the lac operon model in E. coli. Describe how it functions in both the absence and presence of the inducer (lactose).

33. Explain the steps involved in the process of sewage treatment plant. 5

OR

What are methanogens? Explain the working mechanism of a Biogas plant.

****

Name:_____ Sec:____ Roll No:_____

CODE: B

BURNPUR RIVERSIDE SCHOOL, BURNPUR
HALF YEARLY EXAMINATION [2026-2027]
BIOLOGY[044]
CLASS : XII

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

==========

General instructions:

(i) All questions are compulsory.

(ii) The question paper has five sections and 33 questions.

(iii) Section–A has 16 questions of 1 mark each; Section–B has 5 questions of 2 marks each; Section– C has 7 questions of 3 marks each; Section– D has 2 case-based questions of 4 marks each; and Section–E has 3 questions of 5 marks each.

(iv) There is no overall choice. However, internal choices have been provided in some questions. A student has to attempt only one of the alternatives in such questions.

(v) Wherever necessary, neat and properly labelled diagrams should be drawn.

==========

SECTION – A

1. If embryo: endosperm and PMC: tapetum, then seedling:____. 1
   a. Nucellus
   b. Nucleus
   c. Cotyledon
   d. Ovule
2. Leydig cells secretes- 1
   a. LH
   b. Androgens
   c. Semen
   d. Sperms
3. Which of the following is irreversible? 1
   a. Sterilisation
   b. Withdrawl
   c. Lactational amenorrhea
   d. Periodic abstinence

4. Identify the best ART solution for a couple with erectile dysfunction and a healthy female partner. 1
   a. ICSI
   b. IUI
   c. GIFT
   d. IUT
5. In a test cross, what is the genotype of the one and only mandatory parent out of the two? 1
   a. tt
   b. Tt
   c. TT
   d. RT
6. Which of the following is not present in a t-RNA molecule? 1
   a. Anticodon
   b. Amino acid
   c. Codon
   d. Phosphodiester bond
7. Point out the analogous pair of organs. 1
   a. Heart of a parrot and heart of a bat.
   b. Brain of a frog and brain of a man.
   c. Thorns of *Bougainvillae* and tendrils of *Cucurbita.*
   d. Eyes of octopus and eyes of whales.
8. Which pathogen causes malignant malaria? 1
   a. Plasmodium falciparum
   b. Plasmodium vivax
   c. Plasmodium malaria
   d. Rhino virus
9. A particular flavour in Roquefort cheese is imparted by- 1
   a. Virus
   b. Protozoa
   c. Bacteria
   d. Fungi
10. Which of the following is the selectable marker in pBR322? 1
   a. Ori
   b. EcoRI
   c. Tet^R
   d. rop

11. Bt in Bt-cotton stands for- 1

a. Bacillus thuringiensis

b. Bacillus tequilensis

c. Bio-technology

d. Bacillus tusciae

12. Which peptide gets eliminated when pro-insulin matures? 1

a. A

b. B

c. C

d. D

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

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

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

c. A is true but R is false.

d. A is False but R is true.

13. Assertion: DNA polymerase helps in creating the replication fork. 1

Reason: It polymerises at the rate of 2000 bp/sec.

14. Assertion: Skin is a physical barrier. 1

Reason: Interferons are physiological barrier.

15. Assertion: *Azotobacter* is a free living nitrogen fixer. 1

Reason: Rhizobium fixes nitrogen in its symbiotic association with leguminous plants.

16. Assertion: The smallest fragment of DNA travels furthest in a gel electrophoresis. 1

Reason: It separates DNA based on size.

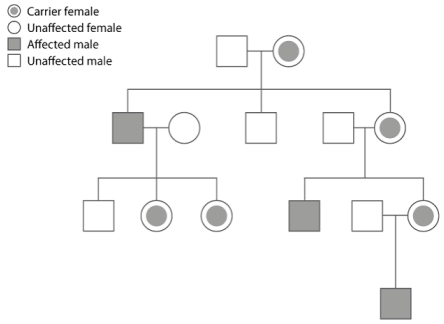
SECTION - B

17. Write two differences between chasmogamous and cleistogamous flowers. 2

18. How does foetal ejection reflex lead to parturition? 2

OR

Draw and label the structure of a human sperm.

19. 

2

a. Identify the type of Mendelian disorder.
b. Write the genotype of the parents of the first generation.

20. Define Adaptive Radiation. Give one example. 2

21. Elucidate any two techniques to transform a host cell with rDNA. 2

SECTION - C

22. Discuss the process of double fertilisation. 3

23. a. In which situation does a doctor prescribe MTP? 3
b. Why are condoms the most popular contraceptive device?

24. List three salient features of genetic code. 3

OR

Diagrammatically discuss the process of transcription.

25. Mention the three key points of Hardy-Weinberg Principle. 3

26. Name the following: 3
A. Plant from which cocaine is obtained.
B. Cancer causing agents.
C. A primary lymphoid organ.

27. How can you get 128 copies of a short DNA strand? Elaborate the process. 3

28. How is RNAi used to control *Meloidegyne incognitia* growth in tobacco plant? 3

SECTION - D

Q.no. 29 and 30 are case based or source based units of assessments of 04 marks each with sub-parts (internal choice have been provided in one of the sub-parts).

29. A 17-year-old girl visits the endocrinologist clinic complaining of a lack of breast development and the absence of menstruation (amenorrhea). Her height is 138 cm, which is significantly below the average height for her age group. Physical examination reveals a webbed neck, a broad chest with widely spaced nipples, and underdeveloped ovaries. Blood tests show high levels of gonadotropins (FSH and LH) 4

and extremely low levels of estrogen. A chromosomal karyotype analysis was ordered.

a. Identify the chromosomal disorder the patient is likely suffering from.
b. What would you expect the exact total chromosome count and sex-chromosome complement (karyotype) of this individual to be?
c. Why is the level of estrogen abnormally low in this patient?

OR

c. Explain why individuals with this condition are sterile.

30. A 25-year-old male patient came to the clinic with complaints of high fever (39°C to 40°C), weakness, stomach pain, headache, and constipation. He gave a history of frequently eating street food. The doctor prescribed a confirmatory diagnostic test, which turned out positive, and noted that the pathogen reaches various organs via blood. 4

a. Identify the disease the patient is suffering from.
b. Which standard test is used for confirmation of this disease?
c. Name the specific causative pathogen and its mode of entry into the human body.

OR

c. Briefly explain why constipation and stomach pain occur in this specific infection.

SECTION - E

31. Graphically represent menstrual cycle in human females. 5

OR

Elaborate gametogenesis in females.

32. Explain the process of DNA replication. 5

OR

Conceptualise gene regulation in prokaryotes with the help of an example.

33. How is sewage treated before disposal? 5

OR

Identify the microbe that helps in the production of –

a. Swiss cheese
b. Wine
c. Butyric acid
d. Cyclosporin A
e. Statins.

Name: _____ Sec: ____ Roll No.: ____

CODE-A

BURNPUR RIVERSIDE SCHOOL, BURNPUR
HALF YEARLY EXAMINATION: [2026-27]
BUSINESS STUDIES
CLASS: XII

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

==========

General Instruction:

Read the following instructions very carefully and strictly follow them :

1. This question paper contains **34** 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 **1-20** carrying **1** mark are MCQs questions.
5. Answer to Question number **21-24** carrying **3** marks may be from 50 to 75 words.
6. Answer to Question number **25-30** carrying **4** marks may be in about 150 words.
7. Answer to Question number **31-34** carrying **6** marks may be in about 200 words.
8. Attempt all parts of a question together.

1. 1

---------- is said to be a systematic body of knowledge which explains certain general truths.

(a)- Management as a science

(b)- Management as a art

(c)- Management as a profession.

(d)- All of these.

2. In what two departments did Taylor divide the work of a factory manager ? 1

(a)- Department of Planning and Production.
(b)- Department of Planning and Finance
(c)- Department of Planning and Marketing.
(d)- Department of Planning and Research.

3. Nitika is the HR manager of the company .She often speaks with people at all levels, passing instructions regarding her department and also others departments. Which principles of management is overlooked? 1

(a)- Scalar chain (b)- Order
(c)- Equity (d)- Unity of command

4. Which of the following does not characteristics the business environment 1

(a)- Uncertainty (b)- Employees
(c)- Relativity (d)- Complexity

5. The risk related to inability to meet fixed financial charges like interest payment and repayment obligation is known as: 1

(a) Operating risk. (b) Financial risk.
(c) Business risk. (d) None of the above.

6. Staffing is a process which involves a series of steps. Arrange the following steps in correct order. 1

(i) Placement and Orientation
(ii) Recruitment
(iii) Selection
(iv) Estimating manpower.

(a) (iv), (ii), (iii), (i) (b) (iv), (iii), (ii), (i)
(c) (i), (ii), (iii), (iv) (d) (ii), (iv), (iii), (i)

7. 'The right of an individual to command his subordinates and to take action within the scope of his position' is called. 1

(a) Decentralisation. (b) Authority.
(c) Responsibility. (d) Accountability.

8. Financial market allocates or directs funds available for investment into the most productive investment opportunity. In doing so, if performs the . 1

(a) Creative.
(b) Exchange.
(c) Allocative.
(d) Productive.

9. The selection tests which are used to measure individual's potential for learning new skills are called: 1
(a) Aptitude Tests.
(b) Intelligence Tests.
(c) Personality Tests.
(d) Interest Tests,

10. Banking sector reforms have led to easier credit terms and better services. It is a part of _____. 1
(a)- Social environment (b)- Economical environment
(c)- Political environment. (d)- Legal environment.

11. At times, a business may concentrate on producing goods with fewer resources but cannot achieve the targeted production. In such a case, the business is said to be :- 1
(a)- Effective but not efficient
(b)- Efficient but not effective
(c)- Both effective and efficient
(d)- Neither effective nor efficient

12 Sunita opened her travel agency named 'Sunita Traval' in july , 2023. She created separate departments for reservations, hotel booking online queries and payment handling.Which organisation structure is used by Sunita? 1
(a) Functional structure (b) Divisional structure
(c) Informal structure (d) Vertical structure

13. Name the function of management which helps in the formulation of future plans, in the light of the problems that were identified and thus , helps in better planning in the future period. 1
(a) Planning (b) Organising
(c) Directing (d) Controlling

14. Which of the following factors affect the capital budgeting decision of the company? 1

(a) Investment criteria involved (b) Tax Rate

(c) Floatation costs (d) State of capital market

15 1

Identify the level of packaging depicted in the given below.



(a)- Primary packaging (b) –Secondary packaging

(c)-Transportaton packaging (d)- All of these.

16. Identify the product related decision illustrated by the picture given below concerned with providing detail information about the product of its packaging. 1

Label for Real Juice	
Name of the product	Real Juice
Name of the manufacturer	Dabur India Ltd.
Address of the manufacturer	Asaf Ali Road, New Delhi
Net weight when packed	1 *l*
Manufacturing date	20th Feb. 2023
Expiry date	20th July 2023
Maximum retail price (MRP)	₹ 110
Batch number	D 4567
Directions for use	To be consumed within 5 days of opening
Contents	Juice concentrate, sugar, preservatives.



(a)- Labelling (b)- branding

(c)- packaging both (a) and (c) (d)- all of these

17 Arrange the steps involved in trading procedure at the stock exchange in correct sequence: 1

(A) Settlement of trade

(B) Selection of broker and opening trading account

(C) Placing of order.

(D) Confirmation of trade.

Choose the correct answer from the options given below:

(a) (B),(D),(C),(A) (b) (B),(C),(D),(A)

(c) (C),(B),(D),(A) (d) (B),(A),(C),(D)

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

ASSERTION (A)- Planning helps in avoiding confusion and misunderstanding.

REASON (R)- Planning ensures clarity in thoughts and action ,work is carried on smoothly without interruptions.

(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 and Reason (R) is not the correct explanation of Assertion (A)

(c)- Assertion (A) is true but Reason (R) is false.

(d)- Assertion (A) and Reason (R) both are incorrect

19 The step in the process of 'planning' which is concerned with putting the plan into action i.e., doing what is required is called: 1

(a)-Implementing the plan. (b)-Follow – up action.

(c)-Developing premises. (d)-Selecting an alternative

20 The principle will give rise to a spirit of mutual trust and belongingness among team members. Which principle of management stated by Fayol is highlighted by this statement? 1

(a)-Initiative. (b)-Esprit de corps.
(c)-Equity (d)-Remuneration of employees.

21 Which type of plan is referred through each of the following statements? 3

(a)- They are defined as ends which the management seeks to achieve by its operations.

(b)-They are general statements that guide thinking or channelize energies towards a particular direction.

(c)-They provide details in the exact manner in which any work is to be performed.

22 (A) Distinguish between Delegation and Decentralisation on any three basis. 3

OR

(B) Distinguish between Authority, Responsibility and accountability on any two basis.

23 Race Tech Ltd is one of the top IT companies in India. The company does mass recruitment teach year from different colleges offering fresh level job to the final year students. this helps in recruiting the brightest and the best available talent in the educational instituitions. 3

In context of the above case:

(a)Identity the source of external recruitment adopted by the company.

(b) Explain briefly any two advantages of using the external sources of recruitment.

24 X Ltd. Issued 14% Debentures of Rs 4,00,000 and 10,000 Equity shares of Rs 60 each. This investment resulted in a net profit of Rs.2,00,000 before interest and tax. The tax rate was 50% . 3

(a) Calculate the rate of return and earning per share of X Ltd.

(b)State with reason whether the above example is that of favourable or unfavourable financial leverage.

25		To promote orderly and healthy growth of securities market and protection of investors, Securities and Exchange Board of India was set up .In the light of the given statement, state any four regulatory function of Securities and Exchange Board of India.	4
26		Royal LTd. Decided that wherever a person reaches a particular age, he will be promoted. Influenced by this plan of the company, several employees of from other companies also joined the firm. But within few days they realized that the firm has pre-determined structure without free communication. On the basis of this, answer the following questions. (a)-Identify the type of plan. (b)-Identify the type of organisation described here. (c)- Point any two limitations of this type of organisation.	4
27	(A)	'Stock Exchange not only contributes to the economics growth, but performs many other functions.' Explain any four such functions.	4
		OR	
	(B)	Keeping in mind the emerging nature of the securities market in India, Securities Exchange Board of India was entrusted with the twin task of both regulation and development of the securities market. State any two regulatory and two development functions of it.	
28		Mr . Sharma has always been fascinated by the hand woven textiles designs. Therefore, he decided to become a weaver. He was told that in order to understand and learn this workmanship, he will have to work under the guidance of a master for a certain number of years. (a)- Identify and explain the type of training being described in the given case. (b)- Also, explain any two other types of training.	4

29 "Sudeep Chatterjee is a plant manager at Auto Tech Ltd. He ensures that his department has the required number of workers, assigns them duties, interprets policies framed by top management, and ensures cooperation with other departments. 4

i-"Identify the level of management at which Sudeep Chatterjee is working.

ii-State any three functions he performs other than those mentioned above.

30 Read the following text and answer the following questions on the basis of the same: 4

After completing her Bachelors in Fashion Designing from a well-known college in France, Aditi has opened a boutique in a posh market in Kolkata. She has divided the work in smaller units and each employee is well trained to perform his/her task efficiently. The sales persons are allowed to close a deal with a buyer by giving a maximum of 5 percent discount, whereas the decision to give any further discount rests with Aditi as the final authority.

In the earlier period of her business venture, employees were asked to put in extra hours of work. In return she had promised to give them a special incentive within a year. Therefore, when the business was doing well, she honour her commitment by giving bonus to her employees. She also instructed her employees that communication from top to bottom should follow the official lines of command. However, she tends to be more biased towards her female employees, when it comes to solve the conflicts among employees.

(i)-Aditi has divided the work in smaller units and each employee is well trained to perform his/ her task efficiently. Which principle of management is being followed here?

(a) Centralization and Decentralization
(b) Division of work
(c) Discipline
(d) Order

(ii)-"The sales persons are allowed to close a deal with a buyer by giving a maximum of 5 percent discount, whereas the decision to give any further discount rests with Aditi as the final authority." Identify the principle of Management being followed here:
(a) Centralization and Decentralisation
(b) Authority and Responsibility
(c) Unity of Command
(d) Unity of Direction

(iii)-“Therefore, when the business was doing well, she honoured her commitment by giving bonus to her employees.” Which principle of management is being highlighted here?
(a) Discipline
(b) Order
(c) Remuneration to Employees
(d) Unity of Direction

(iv)- Aditi tends to be more biased towards her female employees, when it comes to solve the conflicts among employees. Which principle is being violated here?
(a) Discipline
(b) Order
(c) Equity
(d) None of these

31	Read the following text and answer the questions below: Eco Clean Ltd. was successfully running a chemical detergent business in Austria. Encouraged by their international success, the directors decided to export their product line to India. However, just as they planned their entry, the Indian government announced a sudden hike in import duties on chemical solvents. At the same time, an ongoing national campaign promoting eco-friendly and herbal lifestyles caused a major shift in customer preferences away from chemical detergents toward organic alternatives. To survive, Eco Clean Ltd. quickly shifted its R&D team to launch a 100% herbal cleaning range using an online direct-to-consumer software app. i. Identify and explain any two dimensions of the business environment highlighted in the first part of the case. ii. Identify and explain one feature of the business environment highlighted by the CEO's closing statement. iii. Quote the line from the case that demonstrates a positive impact of understanding the environment for a firm.	6
32	Krishna Ltd. is a large manufacturing company making consumer goods. The company wants to expand its operations by setting up a new production plant in a backward area. The estimated cost of the project is ₹100 crores. The Finance Manager, Mr. Kapoor, has to decide the method of raising these funds. The current market conditions show a bearish trend (low stock market prices), meaning issuing fresh equity shares might be difficult and expensive. However, the company already has a high proportion of debt in its existing capital structure. Mr. Kapoor is evaluating whether to raise the entire amount through long-term debt at a 10% interest rate or to go for a mix of equity and debt. Furthermore, because it is a	6

manufacturing firm setting up operations in a new location, the management must also account for regular day-to-day operational funds.

i-Identify and explain the financial decision Mr. Kapoor is performing.

ii-Explain any four factors from the case or general principles that affect this specific decision

33		The management of 'Alfa Ltd.' wants to increase its profit by 20% in the next quarter. The production manager suggests three ways to achieve this: buying high-speed automated machines, raising product prices, or recycling factory waste to make toys. After checking the costs and benefits of each option, the manager picks recycling waste because it is cheap and profitable. He tells the workers to start collecting waste material. Identify and explain any three sequential steps of the planning process highlighted above by quoting lines from the text.	6
34	(A)	Explain the following techniques of Scientific Management: (a)- Standardisation Simplification of work (b)- Differential Piece Wage System. (c)- Time Study	6
		OR	
	(B)	Explain the Following Principles of Management. (a)-Espirit de corps (b)-Equity (c)-Unity of direction	

****

Name: _____ Sec: ____ Roll No.: ____

CODE:B

BURNPUR RIVERSIDE SCHOOL, BURNPUR
HALF YEARLY EXAMINATION: [2026-27]
BUSINESS STUDIES
CLASS: XII

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

==========

General Instruction:

Read the following instructions very carefully and strictly follow them :

1. This question paper contains **34** 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 **1-20** carrying **1** mark are MCQs questions.
5. Answer to Question number **21-24** carrying **3** marks may be from 50 to 75 words.
6. Answer to Question number **25-30** carrying **4** marks may be in about 150 words.
7. Answer to Question number **31-34** carrying **6** marks may be in about 200 words.
8. Attempt all parts of a question together.

==========

1. Name the function of management which helps in the formulation of future plans, in the light of the problems that were identified and thus , helps in better planning in the future period. 1

(a) Planning (b) Organising
(c) Directing (d) Controlling

2. In what two departments did Taylor divide the work of a factory manager ? 1

(a)- Department of Planning and Production.
(b)- Department of Planning and Finance
(c)- Department of Planning and Marketing.
(d)- Department of Planning and Research.

3. Neha is the HR manager of the company .She often speaks with people at all levels, passing instructions regarding her department and also others departments. Which principles of management is overlooked ? 1

(a)- Scalar chain (b)- Order
(c)- Equity (d)- Unity of command

4. Banking sector reforms have led to easier credit terms and better services. It is a part of_____. 1

(a)- Social environment (b)- Economical environment
(c)- Political environment (d)- Legal environment.

5. Which of the following factors affect the capital budgeting decision of a company ? 1

(a) Investment criteria involved.
(b) Floatation costs.
(c) Tax Rate.
(d) State of capital market.

6. Staffing is a process which involves a series of steps. Arrange the following steps in correct order. 1

(i) Placement and Orientation
(ii) Recruitment
(iii) Selection
(iv) Estimating manpower.

(a) (iv), (ii), (iii), (i)
(b) (iv), (iii), (ii), (i)
(c) (i), (ii), (iii), (iv)
(d) (ii), (iv), (iii), (i)

7. Obligation of a subordinate to properly perform the assigned duty is known as. 1

(a) Delegation (b) Accountability
(c) Responsibility. (d) Authority.

8. 'It is a process that allocates or directs funds available for investment into their most productive instrument opportunity'. This is known as: 1

(a)Financial planning. (b) Financial Intermediation.
(c) Allocative function. (d) Capital Budgeting.

9. Is the process of searching for prospective employees and stimulating them to apply for jobs in the organization. 1

(a) Training (b) Selection.

(c) Development. (d) Recruiment .

10. Which of the following does not characteristics the business environment? 1

(a) Uncertainty (b) Employees

(c) Relativity (d) Complexity

11. At times, a business may concentrate on producing goods with fewer resources but cannot achieve the targeted production. In such a case, the business is said to be :- 1

(a)- Effective but not efficient

(b)- Efficient but not effective

(c)- Both effective and efficient

(d)- Neither effective nor efficient

12 Sangita opened her travel agency named ‘Sangita Traval’ in july , 2023. She created separate departments for reservations, hotel booking online queries and payment handling. Which organization structure is used by Sangita?

(a) Functional structure (b) Divisional structure

(c) Informal structure (d) Vertical structure

13. ---------- is said to be a systematic body of knowledge which explains certain general truths. 1

(a) Management as a science (b)Management as a art

(c) Management as a profession. (d)All of these.

14. Which of the following factors affect the capital budgeting decision of the company? 1

(a) Investment criteria involved (b) Tax Rate

(c) Floatation costs (d) State of capital market

1

15 Identify the level of packaging depicted in the given below.



(a) Primary packaging (b) Secondary packaging
(c) Transportaton packaging (d) All of these.

16. Identify the product related decision illustrated by the picture given below concerned with providing detail information about the product of its packaging. 1

Label for Real Juice	
Name of the product	Real Juice
Name of the manufacturer	Dabur India Ltd.
Address of the manufacturer	Asaf Ali Road, New Delhi
Net weight when packed	1 *l*
Manufacturing date	20th Feb. 2023
Expiry date	20th July 2023
Maximum retail price (MRP)	₹ 110
Batch number	D 4567
Directions for use	To be consumed within 5 days of opening
Contents	Juice concentrate, sugar, preservatives.



(a) Labelling (b) branding
(c) packaging both (a) and (c) (d) all of these

17 Arrange the steps involved in trading procedure at the stock exchange in correct sequence: 1

(A) Settlement of trade
(B) Selection of broker and opening trading account
(C) Placing of order.
(D) Confirmation of trade.

Choose the correct answer from the options given below:

(a) (B),(D),(C),(A) (b) (B),(C),(D),(A)

(c) (C),(B),(D),(A) (d) (B),(A),(C),(D)

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

ASSERTION (A)- Planning helps in avoiding confusion and misunderstanding.

REASON (R)- Planning ensures clarity in thoughts and action ,work is carried on smoothly without interruptions.

(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 and Reason (R) is not the correct explanation of Assertion (A)

(c)- Assertion (A) is true but Reason (R) is false.

(d)- Assertion (A) and Reason (R) both are incorrect

19 The step in the process of 'planning' which is concerned with putting the plan into action i.e., doing what is required is called: 1

(a) Implementing the plan. (b) Follow – up action.

(c) Developing premises. (d) Selecting an alternative

20 The principle will give rise to a spirit of mutual trust and belongingness among team members. Which principle of management stated by Fayol is highlighted by this Statement. 1

(a) Initiative (b) Esprit de corps.

(c) Equity. (d)Remuneration of employees.

21 Which type of plan is referred through each of the following statements? 3

(a)- They provide the prescribed ways or manner in which a task has to be performed considering the objective .

(b)-These are specific statements that inform what is to be done and it does not allow for any flexibility.

(c)-These are detailed statements about a project which outlines the objectives, policies, procedures, rules. tasks, human, and physical resources required and the budget to implement any course of action.

22 (A) Distinguish between Formal organisation and Informal organisation on any three basis. 3

OR

(B) Distinguish between Functional structure and Divisional Structure on any three basis.

23 Race Tech Ltd. is one of the top IT companies in India. The company does mass recruitment each year from different colleges offering fresh level job to the final year students. this helps in recruiting the brightest and the best available talent in the educational instituitions. 3

In context of the above case:

(a)Identity the source of external recruitment adopted by the company.

(b) Explain briefly any two advantages of using the external sources of recruitment.

24 X Ltd. Issued 14% Debentures of Rs 4,00,000 and 10,000 Equity shares of Rs 60 each.This investment resulted in a net profit of rs.2,00,000 before interest and tax. The tax rate was 50% . 3

(a) Calculate the rate of return and earning per share of X Ltd.

(b) State with reason whether the above example is that of favourable or unfavourable financial leverage.

25 'Stock exchange not only contributes to the economic growth, but performs many other functions.' Explain the three such functions. 4

26		Sohan LTd. Decided that wherever a person reaches a particular age, he will be promoted. Influenced by this plan of the company, several employees of from other companies also joined the firm. But within few days they realized that the firm has pre-determined structure without free communication. On the basis of this, answer the following questions. (a)-Identify the type of plan. (b)-Identify the type of organisation described here. (c)- Point any two limitations of this type of organisation.	4
27	(A)	'Stock Exchange provides liquidity and marketability to securities.' Explain any four such functions.	4
		OR	
	(B)	' To promote orderly and growth of securities market and protection of investors Securities and Exchange Board of India was set up.' With reference to this statement explain the objective of Securities and Exchange Board of India.	
28		Mr. Sinha has always been fascinated by the hand woven textiles designs. Therefore, he decided to become a weaver. He was told that in order to understand and learn this workmanship, he will have to work under the guidance of a master for a certain number of years. (a)- Identify and explain the type of training being described in the given case. (b)- Also, explain any two other types of training.	4
29		"Rajiv Banerjee is a plant manager at Auto Tech Ltd. He ensures that his department has the required number of workers, assigns them duties, interprets policies framed by top management, and ensures cooperation with other departments. i-"Identify the level of management at which Rajiv Banerjee is working.	4

ii-State any three functions he performs other than those mentioned above.

30 Read the following text and answer the following questions on the basis of the same: 4

After completing her Bachelors in Fashion Designing from a well-known college in France, Aditi has opened a boutique in a posh market in Kolkata. She has divided the work in smaller units and each employee is well trained to perform his/her task efficiently. The sales persons are allowed to close a deal with a buyer by giving a maximum of 5 percent discount, whereas the decision to give any further discount rests with Aditi as the final authority.

In the earlier period of her business venture, employees were asked to put in extra hours of work. In return she had promised to give them a special incentive within a year. Therefore, when the business was doing well, she honour her commitment by giving bonus to her employees. She also instructed her employees that communication from top to bottom should follow the official lines of command. However, she tends to be more biased towards her female employees, when it comes to solve the conflicts among employees.

(i)-Aditi has divided the work in smaller units and each employee is well trained to perform his/ her task efficiently. Which principle of management is being followed here?

(a) Centralization and Decentralization

(b) Division of work

(c) Discipline

(d) Order

(ii)-"The sales persons are allowed to close a deal with a buyer by giving a maximum of 5 percent discount, whereas the decision to give any further discount rests with Aditi as the final authority." Identify the principle of Management being followed here:
(a) Centralization and Decentralisation
(b) Authority and Responsibility
(c) Unity of Command
(d) Unity of Direction

(iii)-“Therefore, when the business was doing well, she honoured her commitment by giving bonus to her employees.” Which principle of management is being highlighted here?
(a) Discipline
(b) Order
(c) Remuneration to Employees
(d) Unity of Direction

(iv)- Aditi tends to be more biased towards her female employees, when it comes to solve the conflicts among employees. Which principle is being violated here?
(a) Discipline
(b) Order
(c) Equity
(d) None of these

31 Read the following text and answer the questions below: 6

Eco Clean Ltd. was successfully running a chemical detergent business in Austria. Encouraged by their international success, the directors decided to export their product line to India. However, just as they planned their entry, the Indian government announced a sudden hike in import duties on chemical solvents. At the same time, an ongoing national campaign promoting eco-friendly and

herbal lifestyles caused a major shift in customer preferences away from chemical detergents toward organic alternatives. To survive, Eco Clean Ltd. quickly shifted its R&D team to launch a 100% herbal cleaning range using an online direct-to-consumer software app.

i. Identify and explain any two dimensions of the business environment highlighted in the first part of the case.

ii. Identify and explain one feature of the business environment highlighted by the CEO's closing statement.

iii. Quote the line from the case that demonstrates a positive impact of understanding the environment for a firm.

32 Global Ltd. is a large manufacturing company making consumer goods. The company wants to expand its operations by setting up a new production plant in a backward area. The estimated cost of the project is ₹100 crores. The Finance Manager, Mr. Kapoor, has to decide the method of raising these funds. The current market conditions show a bearish trend (low stock market prices), meaning issuing fresh equity shares might be difficult and expensive. However, the company already has a high proportion of debt in its existing capital structure. Mr. Kapoor is evaluating whether to raise the entire amount through long-term debt at a 10% interest rate or to go for a mix of equity and debt. Furthermore, because it is a manufacturing firm setting up operations in a new location, the management must also account for regular day-to-day operational funds. 6

i-Identify and explain the financial decision Mr. Kapoor is performing.

ii-Explain any four factors from the case or general principles that affect this specific decision

33		The management of 'Beeta Ltd.' wants to increase its profit by 20% in the next quarter. The production manager suggests three ways to achieve this: buying high-speed automated machines, raising product prices, or recycling factory waste to make toys. After checking the costs and benefits of each option, the manager picks recycling waste because it is cheap and profitable. He tells the workers to start collecting waste material. Identify and explain any three sequential steps of the planning process highlighted above by quoting lines from the text.	6
34	(A)	Explain the following techniques of Scientific Management: (a)- Method Study (b)- Functional Foremanship (c)- Motion Study	6
		OR	
	(B)	Explain the Following Principles of Management. (a)-Stability of Personnel (b)-Discipline (c)-Authority and Responsibility	

****

Name: _____ Sec: _____ Roll No: _____

CODE: A

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

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

==========

GENERAL INSTRUCTIONS: -

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

==========

SECTION -A

1 The system that forms maximum boiling azeotrope is : 1

a) Ethyl alcohol-water
b) Benzene-toluene
c) Acetone-chloroform
d) Carbon disulphide-acetone

2 In comparison to a 0.01M solution of glucose, the depression in freezing point of a 0.01M $MgCl_2$ solution is : 1

a) The same
b) About twice
c) About three times
d) About six times

3 The difference between the electrode potentials of two electrodes when no current is drawn through the cell is called : 1

a) Cell potential
b) Cell emf
c) Potential difference
d) Cell voltage

4 The standard emf of a galvanic cell involving 3 moles of electrons in a redox reaction is 0.59 V. The equilibrium constant for the reaction of the cell is : 1

a) 10^{10}
b) 10^{20}
c) 10^{30}
d) 10^{15}

5 Alkyl halides undergoing nucleophilic bimolecular substitution involve : 1

a) Retention of configuration
b) Inversion of configuration
c) Racemic mixture
d) Formation of carbocation

6 The IUPAC name of isobutyl bromide is : 1

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

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

I. 3 b) 2 c) 1 d) 0

8 The half life of a first order reaction is 69.35 sec. The value of rate constant of the reaction is : 1

a) $1.0\ s^{-1}$
b) $0.1\ s^{-1}$
c) $0.01\ s^{-1}$
d) $0.001\ s^{-1}$

9 Which of the following oxidation state is common for all lanthanoids? 1

a) +2 b) +3 c) +4 d) +5

10 $KMnO_4$ acts as an oxidizing agent in alkaline medium. When alkaline $KMnO_4$ is treated with KI, iodide ion is oxidized to : 1

a) I_2 b) IO^- c) IO_3^- d) IO_4^-

11 Cyclohexanol is a : 1

a) Phenol
b) Primary alcohol
c) Secondary alcohol
d) Tertiary alcohol

12 How many alcohols with molecular formula $C_4H_{10}O$ are chiral in nature ? 1

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

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

13 **Assertion:** The vapour pressure of a liquid decreases if some non-volatile solute is dissolved in it. 1
Reason: The relative lowering in vapour pressure of a solution containing a non-volatile solute is equal to the mole-fraction of the solute.

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

15 **Assertion:** For each ten degree rise of temperature the specific rate constant is nearly doubled. 1
Reason: Energy-wise distribution of molecules in a gas is an experimental function of temperature.

16 **Assertion:** Members of 4d and 5d series of transition elements have nearly same atomic radii. 1
Reason: Atomic radii for transition elements are smaller than their corresponding s-block elements.

SECTION-B

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

18 A solution of $CuSO_4$ is electrolysed for 10 minutes with a current of 1.5 amperes. What is the mass of copper deposited at the cathode ?(atomic mass of Cu = 63.5g) 2

19 **A.** The molar conductivity of a 1.5 M solution of an electrolyte is found to be 138.9 S cm^2 mol^{-1}. Calculate the conductivity of the solution. 2

OR

B. Write electrode reactions taking place in Ni-Cd cell.

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

21 Assign suitable reasons for the following : 2

a) The Mn^{2+} compounds are more stable than Fe^{2+} towards oxidation to their +3 state.

b) Sc^{3+} is colourless in aqueous solution whereas Ti^{3+} is coloured.

SECTION-C

22 Calculate the freezing point of a solution when 3 g of $CaCl_2$(molar mass = 111 g/mol) was dissolved in 100 g of water, assuming $CaCl_2$ undergoes complete ionization.(K_f for water = 1.86 K Kg mol^{-1}) 3

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

24 Among the isomeric alkanes of molecular formula C_5H_{12} , identify the one that on photochemical chlorination yields : 3

i) A single monochloride
ii) Three isomeric monochlorides
iii) Four isomeric monochlorides

25 The rate constant for the first order decomposition of N_2O_5 is given by the following equation : 3

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

26 a) Indicate the steps in the preparation of 3

i) $K_2Cr_2O_7$ from chromite ore
ii) $KMnO_4$ from pyrolusite ore
b) Why $KMnO_4$ is purple in colour?

27 Give the structures and IUPAC names of the products expected from the following reactions : 3

i) Catalytic reduction of butanal
ii) Hydration of propene in the presence of dilute sulphuric acid.
iii) Reaction of propanone with methyl magnesium bromide followed by hydrolysis.

28 Give reason for the following: 3

i) Rectified spirit cannot be converted into absolute alcohol by simple distillation.

ii) Diethyl ether does not react with sodium.

iii) Phenols do not undergo substitution of the -OH group like alcohols.

SECTION-D

29 **Read the passage given below and answer the following questions :** 4

Chemical kinetics deals with the rate of reactions. Order of a reaction may be zero or fractional but molecularity cannot be zero or fractional. In the presence of catalyst, equilibrium is attained quickly. Those reactions which proceed in one step is called elementary reaction and complex reaction proceed in two or more steps.

a) Write the relation between $t_{1/2}$, initial concentration and rate constant for a zero order reaction.
b) Give an example of pseudo first order reaction.
c) The plot between 1/T and log k is a straight line. What does describe :
   i) slope of the line
   ii) intercept of Y-axis

OR

c) The value of rate constant for a chemical reaction is 10^{-2} mol^{-1} L s^{-1} . What is the order of the reaction? What is the effect of catalyst on rate constant.

30 **Read the passage given below and answer the following questions :** 4

The d-block elements are known as transition elements and f-block are known as inner transition elements. Due to the presence of partly filled d or f orbitals, these elements differ in many properties from the main group elements.

a) Why does a transition series contain 10 elements ?
b) Why is copper considered a transition metal?
c) Out of bromine and oxygen with which chromium will exhibit highest oxidation state and why?

OR

c) Give one example of compounds of Ni and Fe in which their oxidation state is zero.

SECTION-E

31 **A**. Define an ideal solution and write two of its characteristics. 5

B. Define azeotropes. What type of azeotrope is formed by negative deviation from Raoult's law? Give an example.

32 **A.** Write the structures of the following compounds : 5

i) 2-Chloro-3-methylpentane
ii) 1-Chloro-4-ethylcyclohexane
iii) 4-Tert-butyl-3-iodoheptane
iv) 1,4-Dibromobut-2-ene
v) 1-Bromo-4-sec-butyl-2-methylbenzene

OR

B. Name the following halides according to IUPAC system :

I. $(CH_3)_2CHCH(Cl)CH_3$
II. $CH_3CH_2CH(CH_3)CH(C_2H_5)Cl$
III. $(CH_3)_3CCH_2CH(Br)C_6H_5$
IV. $CH_3CH=CHC(Br)(CH_3)_2$
V. $p\text{-}ClC_6H_4CH_2CH(CH_3)_2$

33 **A.** An organic compound A having molecular formula C_3H_6 on treatment with aqueous sulphuric acid gives B which on treatment with $HCl/ZnCl_2$ gives C. The compound C on treatment with ethanolic KOH gives back the compound A. Identify A, B and C and write the chemical reactions involved. 5

OR

B. A compound A($C_4H_{10}O$) is optically active. On mild oxidation, it gives a compound B but on vigorous oxidation gives another compound C. C along with D is also formed from B by reaction with iodine and alkali. Deduce the structures of A, B, C, D and also name the mild oxidizing agent for the conversion of A to B.

****

Name:_____ Sec:_____ Roll No:____

CODE :B

BURNPUR RIVERSIDE SCHOOL,BURNPUR
HALF-YEARLY EXAMINATION: [2026-2027]
CHEMISTRY
CLASS XII

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

==========

General Instructions:

- ***(i)*** ***This question paper consists of 33 questions in 5 sections.***
- ***(ii)*** ***All questions are compulsory. However, an internal choice is provided in some questions. A student is expected to attempt only one of these questions.***
- ***(iii)*** ***Section A consists of 16 objective type questions carrying 01 mark each.***
- ***(iv)*** ***Section B consists of 5 Very Short questions carrying 02 marks each. Answer to these questions should be in the range of 30 to 50 words.***
- ***(v)*** ***Section C consists of 7 Short Answer type questions carrying 03 marks each. Answer to these questions should be in the range of 50 to 80 words.***
- ***(vi)*** ***Section D consists of 2 Source based/ Case based unit of assessment of 04 marks with sub parts.***
- ***(vii)*** ***Section E consists of 3 Long Answer type questions carrying 05 marks each. Answer to these questions should be in the range of 80 to 120 words.***

==========

SECTION – A

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

1. A compound undergoes complete tetramerization in a given organic solvent. The Van't Hoff factor is — 1
   (a) 4.0
   (b) 0.25
   (c) 0.125
   (d) 2.0

2. Molarity of a solution at 60°C is _____ than molarity at 30°C. 1
   (a) more
   (b) less
   (c) same
   (d) no effect

3. The standard reduction potentials of Cu^{2+}/Cu and Cu^{2+}/Cu^{+} are 0.337 and 0.153 respectively. The standard electrode potential of Cu^{+}/Cu half-cell is - 1
   (a) 0.184 V
   (b) 0.827 V
   (c) 0.521 V
   (d) 0.490 V

4. The amount of electricity required to deposit 1 mol of aluminium from a solution of $AlCl_3$ will be — 1
   (a) 0.33 F
   (b) 1 F
   (c) 3 F
   (d) 1 ampere

5. On which of the following factors the stability of carbocation depends? 1
   (a) Resonance
   (b) Temperature
   (c) Transition state
   (d) Reaction rate.

6. chlorobenzene, reacts with alkyl chloride in the presence of sodium metal gives- 1

(a) toluene

(b) xylene

(c) benzyl chloride

(d) phenol

7. The half-life of the first order reaction having rate constant k = $1.7 \times 10^{-5}\ s^{-1}$. 1

(a) 12.1h

(b) 9.7h

(c) 11.3h

(d) 1.8 h

8. $RCOOR' + H2O \xrightarrow{HCl} RCOOH + R'OH$ what type of reaction is this? 1

(a) Second order

(b) Unimolecular

(c) Pseudo- unimolecular

(d) Third order

9. The difference between the oxidation number of Cr in chromate and dichromate ion is: 1

(a) 0

(b) 2

(c) 3

(d) 1

10. Which of the following are d-block elements but not regarded as transition elements? 1

(a) Cu, Ag, Au
(b) Zn, Cd, Hg
(c) Fe, Co, Ni
(d) Ru, Rh, Pd.

11. Which of the following is a characteristic test for phenol? 1

(a) Ferric chloride test
(b) Tollen's reagent test
(c) Fehling's test
(d) Benedict's test

12. The boiling point of ethers is ____ the boiling point of alcohols of comparable molecular mass. 1

(a) lower than
(b) similar to
(c) little higher than
(d) much higher than

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

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

13. **Assertion:** $\Delta_{mix}H$ for an ideal solution is not equal, to zero. 1
Reason: A-B interactions in an ideal solution are same, as between A-A and B-B interactions.

14. **Assertion:** E_{cell} should have a positive value for the cell to function. 1
Reason: $E_{cathode} < E_{anode}$.

15. **Assertion:** For a zero-order reaction the unit of rate constant and rate of reaction are same. 1
Reason: Rate of reaction for zero order reaction is independent of concentration of reactant.

16. **Assertion:** Transitions metals are used as catalysts. 1
Reason: Transition metals show variable valency.

SECTION – B

17. Explain why an addition of 1 mol of KCL to 1 litre of water, the boiling point of water increases while the addition of 1 mol of methyl alcohol to 1 litre of water decreases the boiling point. 2

18. A cell reaction is considered spontaneous if the overall emf of the cell is positive. Comment. 2

19. Electrolytes of KBr solution gives Br_2 ions at the anode, but the solution of KF does not produce any F_2 ions. Give a reason. 2

OR

How many g of chlorine can be produced by the electrolysis of molten NaCl with a current of 1 ampere for 15 mins?

20. The presence of - NO_2 group at ortho and para position increases the reactivity of haloarenes towards nucleophilic substitution reactions. 2

21. Why transition elements exhibit variable oxidation states? 2

SECTION-C

22. Calculate the mass of urea, (NH_2CONH_2) required in making 2.5 kg of 0.25 molal aqueous solution. (Molar mass of urea = 60 g/mol) 3

23. Iron does not rust even if a zinc coating is broken in a galvanized iron pipe, but rusting occurs much faster if the tin coating over iron is broken. Why? 3

24. Arrange the compounds of each set in order of reactivity towards 3
(a) S_N2 displacements.
2- bromo-2- methyl butane, 1- bromopentane, 2- bromopentane
(b) Identify A and B:

$$C_6H_6 \xrightarrow{Br2/FeBr3} A \xrightarrow{Na/Ether} B$$

25. The rate constant for a first order reaction is 60 s^{-1}.How much time will it take to reduce the initial concentration of the reactant to its 1/10th value. 3

26 Account for the following: 3

(a) Mn_2O_7 is acidic whereas MnO is basic.

(b) Though Cu has completely filled d-orbital yet it is considered as a transition metal.

(c) Transition elements form colored complexes.

27. Illustrate the following reactions giving a chemical equation for each: - 3

(a) Kolbe's reaction

(b) Williamson's synthesis of an ether

28. What happens when: 3

(a) Salicylic acid is treated with $(CH_3CO)_2O$ / H^+?

(b) Phenol is oxidized with $Na_2Cr_2O_7$ / H^+?

(c) Anisole is treated with CH_3Cl / Anhydrous $AlCl_3$?

Write chemical equation in support of your answer.

SECTION-D

29. The potential of a single electrode cannot be determined. It is because two electrodes are required to form a complete cell. The EMF of the complete cell may be determined which is equal to the algebraic difference of the potentials of two electrodes. 4

Answer the following questions:

(a) Write Nernst equation for the reaction:

$2Cr + 3Fe^{2+} \rightarrow 2Cr^{3+} + 3Fe$

(b) Name the cell which does not give a steady potential and is used in transistors.

(c) Calculate the emf of the cell in which the following reaction takes place:

$Ni(s) + 2Ag^{+}(0.002\ M) \rightarrow Ni^{2+}(0.160\ M) + 2Ag(s)$

(Given that, $E^{0}_{cell} = 1.05V$, $\log 4 = 0.602$)

OR

(c) Calculate the maximum possible electrical work that can be obtained from Daniel cell under standard conditions at 25°C.

$E^{o}_{(Zn^{2+}/Zn)} = -0.76$ V, $E^{o}_{(Cu^{2+}/Cu)} = 0.34$ V (Given F=96500 $Cmol^{-1}$)

30. Transition metals when exposed to air form a protective oxide film. Transition metal oxides form ionic as well as covalent binary compounds. Transition metal atoms and ions form large number of coordination compounds. 4

Answer the following questions:

(a) Why are transition elements known as d-block elements?

(b) Cu^{+} is colourless and diamagnetic. Cu^{2+} (aq) is blue and paramagnetic. Why?

(c) Explain how the colour of $K_2Cr_2O_7$ solution depends on pH

OR

(c) Account for the following:

(i) Actinoids show wide range of oxidation states.

(ii) Transition metals have higher melting points.

SECTION-E

31. (a) At the same temperature CO_2 gas is more soluble in water than O_2 gas. Which one of them will have higher value of K_H and why? 5

(b) 1 molal aqueous solution of an electrolyte A_2B_3 is 60% ionized. Calculate the boiling point of the solution. (Given K_b for H_2O = 0.52 K kg mol^{-1})

OR

What is meant by positive and negative deviations from Raoult's law and how is the sign of Δ_{mix} H related to positive and negative deviations from Raoult's law?

32. (a) Chlorobenzene is o/p directing towards electrophilic substitution reactions. Why? 5

(b) Give one use of iodoform**.**

(c) C–Cl bond in chlorobenzene is shorter than that of the C–Cl bond in CH_3Cl. Explain.

OR

(d) **Identify A, B, C, D & E:**

$$CH_3CH_2OH \xrightarrow[625K]{Al2O3} A \xrightarrow{Br2} B \xrightarrow{Alc.KOH} C \xrightarrow{NaNH2} D \xrightarrow{C2H5I} E$$

33. **Name the reagents used in the following reactions:** 5

(a) Oxidation of a primary alcohol to carboxylic acid.

(b) Oxidation of primary alcohol to aldehyde.

(c) Bromination of phenol to 2,4,6-tribromophenol.

(d) Benzyl alcohol to benzoic acid.

(e) Dehydration of propan-2-ol to propene.

OR

(a) What is the order of reactivity of PCl_5 with isomeric PST alcohols?

(b) Name one reagent which is used for the distinction of PST alcohols**.**

(c) What is the order of acid strength of:

$HCOOH$, CH_3OH, H_2CO_3, C_6H_5OH

(d) Write the formulae of electrophiles which attack benzene ring on Nitration and Chlorination.

(e) Predict the major product formed when sodium ethoxide reacts with tert-butyl chloride.

****

Name: _____ Sec: ____ Roll No.: ____

CODE: B

BURNPUR RIVERSIDE SCHOOL, BURNPUR
HALF YEARLY EXAMINATION: [2026-2027]
COMPUTER SCIENCE
CLASS – XII

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

==========

General Instructions:

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

==========

SECTION-A
Each question carries 1 mark

Answer the following questions:

1. State **True** or **False** : 1
   "There is no conceptual limit to the size of a list."
2. Given the lists L=[1,3,6,82,5,7,11,92] 1
   Write the output of print(L[2:5])
   a. [6,82,5] b. [6,82,5,7] c. [3,6,82] d. none
3. Which of the following is not a valid arithmetic operator in Python: 1
   a. ? b. < c. and d. none
4. What will be the output of the following Python code? 1

```
lst = [3,4,6,1,2]
lst[1:2] = [7,8]
print(lst)
```

   a. [3,7,8,6,1,2] b. Syntax error
   c. [3,[7,8],6,1,2] d. [3,4,6,7,8]

5. 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

6. To force Python to write the contents of file buffer on to a storage file, ____ method may be used. 1

a. flush ( ) b. push( ) c. force( ) d. none

7. 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

8. ____ is a protocol used for retrieving emails from a mail server. 1

a. SMTP b. FTP c. POP3 d. none

9. 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

10. We can suppress EOL translation in text file by giving ____ argument in open( ). 1

a. newline b. offline c. eol-1 d. none

11. Consider the code below. What will the list NL be storing? 1

```
Lst = [('a', 2), ('b', 4), ('c', 6)]
NL = [n * 10 for (x, n) in Lst if x = = 'b' or x = = 'c']
```

a. [40, 60] b. [50, 60] c. [30, 40] d. none

12. Which type of transmission media is the least expensive to manufacture? 1

a. Coaxial b. Twisted Pair cable
c. CAT cable d. Fibre optic

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

"If no path is given with a file name in the open( ), then the file must exist in the current directory."

14. Stack follows the strategy of ____. 1

a. LIFO b. FIFO c. LRU d. RANDOM

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

To specify a different delimiter while writing into a csv file, ____ argument is used with csv.writer( ).

16. 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):

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

18. ____ protocol is responsible for transferring data over the Internet.
a. FTP b. SMTP c. TCP/IP d. POP

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

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

20. **ASSERTION (A)**: CSV (Comma Separated Values) is a file format for data storage which looks like a text file. 1

REASON (R): The information is organized with one record on each line and each field is separated by comma.

21. **ASSERTION (A)**: A stack is a linear data structure implemented in LIFO manner. 1

REASON (R): In stacks, the elements are processed in the reverse order of their insertion – the elements inserted lasts, are removed first.

SECTION-B
Each question carries 2 marks

Answer the following questions:

22. How is **IP address** different from **MAC address**? Discuss briefly. 2

23. Find the output of the following: 2

```
def disp(x):
        print(5**x)
disp(3)
print("\n")
disp(2)
```

24. Differentiate between **<file-object>.tell( )** function and **<file-object>.seek( )** function. 2

25. Which data types are supported by the statistics module? 2

26. Differentiate between **Hub** and **Switch**. 2

27. What is the length of the tuple shown below? 2
T = ((((‘m’, 20), ‘n’, ‘o’), ‘p’, 50), ‘q’, 100, ‘brs’)
Explain briefly to support your answer.

28. What do you understand by the following terms related to stacks? 2
    a. Overflow
    b. Underflow

SECTION-C
Each question carries 3 marks

Answer the following questions:

29. a. Expand TCP/IP. 3
    b. Give two major differences between Message Switching and Packet Switching.

30. Write a function XYCount() in Python, which should read each characterof a text file ABC.TXT, should count and display the occurance of alphabets X and Y (including small cases x and y too). 3
Example:
If the file content is as follows:
The fox jumped on the wax
The boy was playing with an axe.
The XYCount() function should display the output as:
X or x : 3
Y or y : 1

31. Write a function LShift(Arr,n) in Python, which accepts a list Arr of numbers and n is a numeric value by which all elements of the list are shifted to left. 3

Sample Input Data of the list Arr = [10,20,30,40,12,11], n=2

Output

Arr = [30,40,12,11,10,20]

SECTION-D

Each question carries 4 marks

Answer the following questions:

32. Consider a function with following header: 4

```
def info(object, spacing = 10, collapse = 1)
```

Here are some function calls given below. Find out which of these are correct and which of these are incorrect stating reasons:

i. info(obj1)
ii. info(spacing = 20)
iii. info(obj2, 12)
iv. info(obj11, object = obj12)

33. a. Name the two versions of IP addresses. (1) 4
b. Describe briefly the two versions of IP addresses. (3)

34. A given text file "data.txt" contains: 4

```
Line 1\n
\n
Line 3
Line 4
\n
Line 6
```

What will be the output of following code?

```
fh = open ("data.txt", "r")
lst = fh.readlines( )
print( lst[0], end = '' )
print( lst[2], end = '' )
print( lst[5], end = '' )
print( lst[1], end = '' )
```

35. Given a stack as an array of 7 elements STACK : K, P, S, _, _, _, 4

(a) When will overflow and underflow occur? (2)
(b) Can K be deleted before S? Why? (1)
(c) What do you understand by the term 'Stack'? (1)

SECTION-E
Each question carries 5 marks

Answer the following questions:

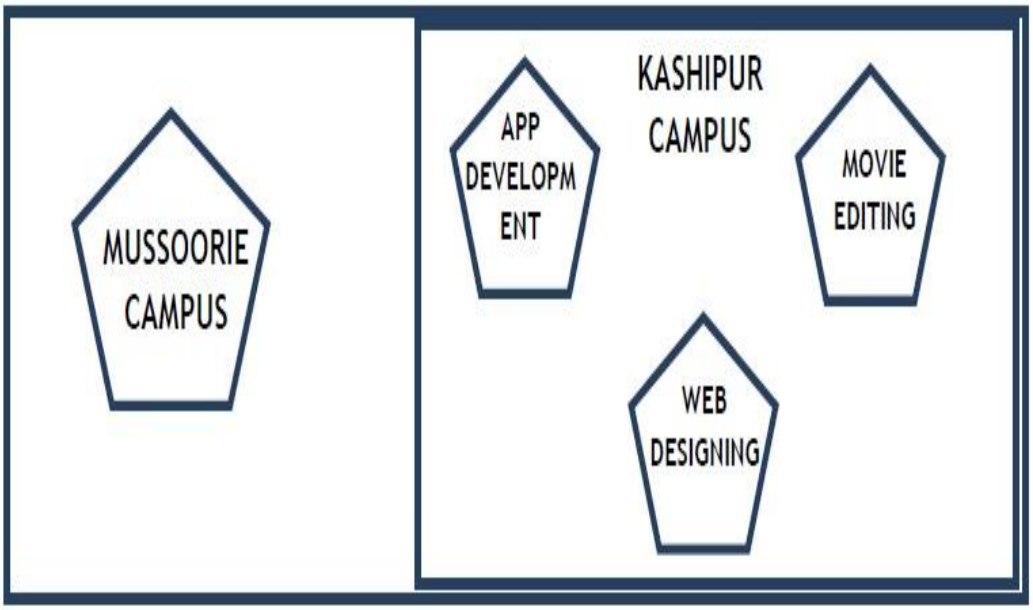
36. Consider the following stack of characters implemented as an array of 8 elements: 5

STACK : A, J, P, N
↑ top

Describe the stack as the following operations take place:

(a) POP (STACK, ITEM)
(b) PUSH (STACK, K)
(c) PUSH (STACK, S)
(d) POP (STACK, ITEM)
(e) PUSH (STACK, G)

37. Mod-Tech Corporation, an Uttarakhand based IT training company, is planning to set up training centres in various cities in next 2 years. Their first campus is coming up in Kashipur district. At Kashipur campus, they are planning to have 3 different blocks for App development, Web designing and Movie editing. Each block has number of computers, which are required to be connected in a network for communication, data and resource sharing. As a network consultant of this company, you have to suggest the best network related solutions for them for issues/problems raised in question nos.(i) to (v), keeping in mind the distances between various blocks/locations and other given parameters. 5



Distance between various blocks/locations:

Block	Distance
App development to Web designing	28 m
App development to Movie editing	55 m
Web designing to Movie editing	32 m
Kashipur Campus to Mussoorie Campus	232 km

Number of computers

Block	Number of Computers
App development	75
Web designing	50
Movie editing	80

(i) Suggest the most appropriate block/location to house the SERVER in the Kashipur campus (out of the 3 blocks) to get thebest and effective connectivity. Justify your answer.

(ii) Suggest a device/software to be installed in the Kashipur Campus to take care of data security.

(iii) Suggest the best wired medium and draw the cable layout (Block to Block) to economically connect various blocks within the Kashipur Campus.

(iv) Suggest the placement of the following devices with appropriate reasons:

a. Switch / Hub

b. Repeater

(v) Suggest a protocol that shall be needed to provide Video Conferencing solution between Kashipur Campus and Mussoorie Campus.

==========

NAME_____SEC_____ROLL NO_____

CODE:A

BURNPUR RIVERSIDE SCHOOL, BURNPUR
HALF YEARLY EXAMINATION: [2026-2027]
COMPUTER SCIENCE (083)
CLASS-XII

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

==========

General Instructions:

1. This question paper contains five sections, Section A to E.
2. All questions are compulsory.
3. Section A has 21 questions carrying 01 mark each.
4. Section B has 07 Very Short Answer type questions carrying 02 marks each.
5. Section C has 03 Short Answer type questions carrying 03 marks each.
6. Section D has 04 Long Answer type questions carrying 04 marks each.
7. Section E has 02 questions carrying 05 marks each.
8. All programming questions are to be answered using Python Language only.
9. In case of MCQ, text of the correct answer should also be written.

==========

SECTION-A

1. The value of the expressions 4/(3*(4 - 2)) and 4/3*(4 - 2) is the same.[**TRUE or FALSE**] [1]

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

3. What data type is the object below ? [1]
   L = 1, 23, 'hello', 1
   a. list
   b. dictionary
   c. array
   d. tuple

4. The terms PUSH and POP are related to _____. [1]
   a.Queue b.Stack c.Linked List d.Tuple

5. Which of the following is not correct in context of Positional and Default parameters in Python functions ? [1]

a. Default parameters must occur to the right of Positional parameters.
b. Positional parameters must occur to the right of Default parameters.
c. Positional parameters must occur to the left of Default parameters.
d. All parameters to the right of a Default parameter must also have Default values.

6. The readlines() method returns [1]

a. str
b. a list of lines
c. a list of single characters
d. a list of integers

7. 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. documentation

8. Network in which every computer is capable of playing the role of a client, or a server or both at same time is called [1]

a. peer-to-peer network
b. local area network
c. dedicated server network
d. wide area network

9. Following set of commands is executed in shell, what will be the output? [1]

```
>>>str = "hello"
>>>str[:2]
>>>
```

a. he
b. lo
c. olleh
d. hello

10. Which of the following statement is not correct ? [1]

a. We can write content into a text file opened using 'w' mode.
b. We can write content into a text file opened using 'w+' mode.
c. We can write content into a text file opened using 'r' mode.
d. We can write content into a text file opened using 'r+' mode.

11. In a stack all insertion takes place at _____ end(s). [1]

a.top b.front c.rear d.any

12. HTTP stands for : [1]

a. Hyper Text Transfer Protocol
b. Hyper Transmission Text Protocol
c. Having Terminal Transfer Protocol
d. Having Text Transfer Protocol

13. Serialisation process is also called pickling. [1]
[**TRUE or FALSE**]

14. Stack follows the strategy of _____. [1]

a.LIFO b.FIFO c.LRU d.RANDOM

15. The default delimiter of csv files is _____. [1]
[FILL IN THE BLANKS]

16. For a function header as follows : [1]
def Calc(X,Y = 20):
Which of the following function calls will give an error ?
   a. Calc(15, 25)
   b. Calc(X = 15, Y = 25)
   c. Calc(Y = 25)
   d. Calc(X = 25)

17. Network device that regenerates and retransmits the whole signal is _____ . [1]
   a. Modem
   b. Hub
   c. Repeater
   d. Bridge

18. Central Computer which is powerful than other computers in the network is called as ..... [1]
   a. Client
   b. Server
   c. Hub
   d. Switch

19. Which transmission media is capable of having a much higher bandwidth (data capacity) ? [1]
   a. Coaxial
   b. Twisted pair cable
   c. Untwisted cable
   d. Fibre optic

Q20 and 21 are ASSERTION AND REASONING based questions. Mark the correct choice as
(a) Both A and R are true and R is the correct explanation for A
(b) Both A and R are true and R is not the correct explanation for A
(c) A is True but R is False
(d) A is false but R is True

20. **Assertion.** Every open file maintains a file-pointer and keeps track of its position after every operation. [1]
Reason. Every read and write operation takes place at the current position of the file pointer.

21. **Assertion.** A stack is a LIFO structure. [1]
Reason. Any new element pushed into the stack always get positioned at the index after the last existing element in the stack.

SECTION-B

22. What is meant by topology ? Name two popular topologies. [2]

23. **Find the output of the following code:** [2]

```
def Tot(Number):
    Sum = 0
    for C in range(1, Number + 1):
        Sum += C
    return Sum
print(Tot(3))
print(Tot(6))
```

24. Differentiate between the following: [2]

```
f = open('diary.txt', 'r')
f = open('diary.txt', 'w')
```

25. Consider the following code : [2]

```
import random
print(int(20 + random.random() * 5), end = ' ')
print(int(20 + random.random() * 5), end = ' ')
print(int(20 + random.random() * 5), end = ' ')
print(int(20 + random.random() * 5))
```

Find the suggested output options 1 to 4. Also, write the least value and highest value that can be generated.

a. 20 22 24 25
b. 22 23 24 25
c. 23 24 23 24
d. 21 21 21 21

26. Define Crosstalk. [2]

27. Start with the list [8, 9, 10]. Do the following using list functions: [2]

i. Set the second entry (index 1) to 17
ii. Add 4, 5 and 6 to the end of the list
iii. Remove the first entry from the list
iv. Sort the list

28. Name the basic operations performed on a stack. [2]

SECTION-C

29. Name three types of guided media and three types of unguided media. [3]

30. Write a method COUNTLINES() in Python to read lines from text file 'TESTFILE.TXT' and display the lines which are not starting with any vowel. [3]

Example:
If the file content is as follows:

An apple a day keeps the doctor away.
We all pray for everyone's safety.
A marked difference will come in our country.

The COUNTLINES() function should display the output as:
The number of lines not starting with any vowel = 1

31. What is a Function? What is the Default Parameter of a function? [3]

SECTION-D

32. Give two differences between Local variables and Global variables in a function. [4]

33. What is a Protocol? Name the three protocols used by email. [4]

34. Mr.Umresh Puri has written a program to create CSV file to store student data (Rollno, Name,Marks).He has obtain data from from the user and entered 5 record into the file. [4]

```
import _____                                #Line1
fh = open("Student.csv", "w")               #Line2
stuwriter = csv.writer(fh)
stuwriter.writerow (_____)                  #Line3

for I in range(5):
        print ("Student record",(i+1))
        rollno = int (input("Enter rollno:"))
        name = input("Enter name:")
        marks = float(input("Enter marks:"))
sturec = [rollno,name,marks]
stuwriter.writerow(_____)       #Line4
fh._____                        #Line5
```

a.Name the module he should import in Line 1.
b.Fill in the blank in Line 3 to write the column heading.
c.Fill in the blank in Line 4 to write the data sequence in writer object .
d.Fill in the blank in Line 5 to close the file.

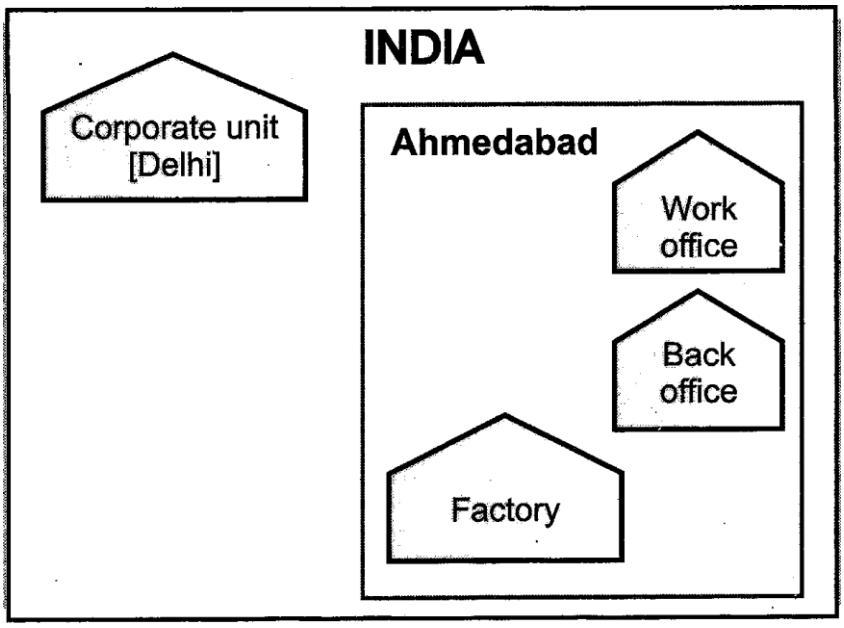
35. Write a function in python, **MakePush(Package)** and **MakePop(Package)** to add a new Package from a List of Package Description, considering them to act as push and pop operations of the Stack data structure. [4]

SECTION-E

36. A list contains following record of a customer: [5]
[Item_name, Qty, Price]
Write the following user defined functions to perform given operations on the stack named 'Item1':
(i) Push_element() - To Push an object containing name and quantity of items having price "20000" to the stack
(ii) Pop_element() - To Pop the objects from the stack and display them. Also, display "Stack Empty" when there are no elements in the stack.

37. "New York Avenue" is planning to expand their network in India, starting with two cities in India to provide infrastructure for distribution of their canned products. The company has planned to set up their main [5]

offices in Ahmedabad, at three different locations and have named their offices as "Work Office", "Factory" and "Back Office". The company has its Corporate Unit in Delhi. A rough layout of the same is as shown below:



Approximate distance between these offices is as follows :

From	To	Distance
Work Office	Back Office	110 m
Work Office	Factory	14 km
Work Office	Corporate Office	1280 km
Back Office	Factory	13 km

In continuation of the above, the company experts have planned to install the following number of computers in each of their offices :

Work Office	200
Back Office	115
Factory	67
Corporate	75

(i) Suggest the kind of network required (out of LAN, MAN, WAN) for connecting each of the following offices:

1. Work Office and Factory
2. Work Office and Back Office

(ii) Which one of the following devices will you suggest for connecting all the computers within each of their office units ?

1. Switch/Hub
2. Modem
3. Telephone

(iii) Which of the following communication media, you will suggest to be procured by the company for connecting their local offices in Ahmedabad for very effective (High Speed) communication ?

1. Telephone Cable
2. Optical Fibre
3. Ethernet Cable

(iv) Suggest a cable/wiring layout for connecting the company's local office units located in Ahmedabad. Also, suggest an effective method/technology for connecting the company's office unit located in Delhi.

(v) Which one of the following devices will you suggest for connecting all the computers within each of their offices ?

1. Switch/Hub
2. Modem
3. Telephone

==========

Name: _____ Sec: ____Roll No.: ____

SET-B

BURNPUR RIVERSIDE SCHOOL, BURNPUR
HALF YEARLY EXAMINATION : [2026-2027]
ECONOMICS(030)
CLASS : XII

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

==========

General Instructions :

1) This question paper contains two sections:

Section A- Macro Economics
Section B- Indian Economic Development

2) This paper contains 20 Multiple Choice Questions type questions of 1mark each.

3) This paper contains 4 Short Answer Questions type questions of 3 marks each to be answered in 60 to 80 words.

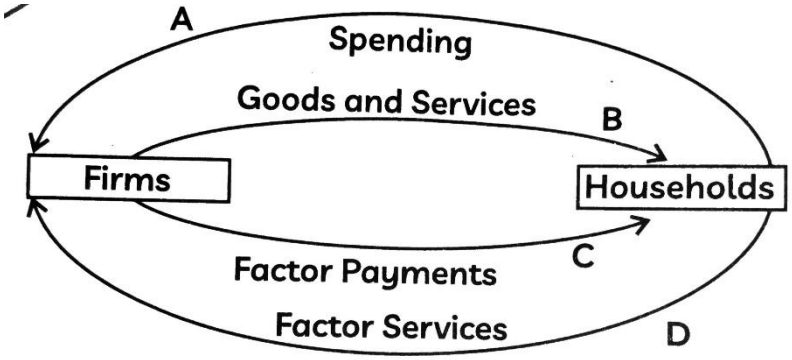
4) This paper contains 6 Short Answer Questions type questions of 4 marks is to be answered in 80 to 100 words.

5) This paper contains 4 Long Answer Questions type questions of 6 marks each to be answered in 100 to 150 words.

==========

SECTION A- MACRO ECONOMICS

1. Refer to the given diagram carefully:- **1**



The arrow C and D represent_____ market.
(Choose the correct option to fill up the blank)

Alternatives:
a. Factor
b. Goods
c. Stock
d. Financial

2. Read the following statements-Assertion(A) and Reason(R). **1**
Choose one of the correct alternatives given below:-
Assertion(A)-Reserve ratio and credit creation power of the commercial bank are directly related.
Reason(R)- Credit Creation is the product of reciprocal of reserve ratio and primary deposits.

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.

3. Read the following statements carefully. **1**
Statement 1: The induced consumption shows, the direct relation between consumption and income.
Statement 2: With a certain increase in income, induced consumption also increases.

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. Fill in the blank: NNP at FC _____= GDP at MP. **1**

a. + Depreciation - Net Factor Income from Abroad - Net Indirect Tax

b. + Depreciation + Net Factor Income from Abroad + Net Indirect Tax
c. + Depreciation - Net Factor Income from Abroad + Net Indirect Tax
d. + Depreciation + Net Factor Income from Abroad – Net Indirect Tax

5. _____ is the total volume of money held by the public, for the purpose of disposing off, at a particular point of time. **1**

a. Term deposit
b. Demand for money
c. Money Supply
d. Credit creation

6. ***"Expansion of environmentally harmful industries can increase GDP, but such growth may not necessarily improve overall economic welfare"*** **1**
Which of the following options best supports the above statement?

a. Reduction in income inequality
b. Rapid growth of the financial sector
c. Expansion of environmentally harmful industries
d. Increased government investment in education and healthcare

7. Read the following statements carefully. **1**
Statement 1: In a situation of deficient demand, the government reduces its borrowing from the public.
Statement 2: In a situation of excess demand, the government lowers the tax burden on the households.

In light of the given statements, choose the correct alternative from the following:
a. Statement 1 is true and Statement 2 is false
b. Statement 1 is false and Statement 2 is true
c. Both statements are true
d. Both statements are false

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

Assertion(A)- Corresponding to capital gains, there is no value addition in the economy.
Reason(R)- Income from capital gains is not to be treated as a factor income.

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.

9. In an imaginary economy, maintaining a Cash Reserve Ratio of 20% with primary deposits of ₹ 1000, the total derivative deposits created by banks would be _____. **1**
Choose the correct alternative to fill in the blank.

a. ₹5000
b. ₹1000
c. ₹4000
d. ₹3000

10. If a straight line consumption function makes a positive intercept at the y axis, it implies that the MPC_____ and APC_____as the level of income increases. **1**

a. remains constant, rises
b. falls, falls
c. rises, rises
d. remains constant , falls

11.A. ***"The RBI control the money supply in the economy in various ways. The tools used by the Central Bank to control money supply can be quantitative or qualitative".*** **3**
Describe any two of the quantitative methods used by the central bank to control the money supply.

OR

11.B ***"Within objective to reduce inflation, RBI may promote the commercial banks to park their surplus funds with it".*** **3**
Discuss the rationale behind the step taken by the RBI.

12. ***"Under the expenditure method, the value of GDP can be estimated by adding the final expenditure incurred by all the sectors of an economy".*** **3**
In the light of the given statement, explain the expenditure incurred by any two sectors.

13. Suppose for an economy, government proposes to investment project for construction of express-ways with an additional investment of ₹ 2000 crore. Assuming, 80% of increase in income is spent on consumption. **4**
Estimate the following on the basis of given information.
A. Change in income (ΔY)
B. Change in consumption(ΔC)

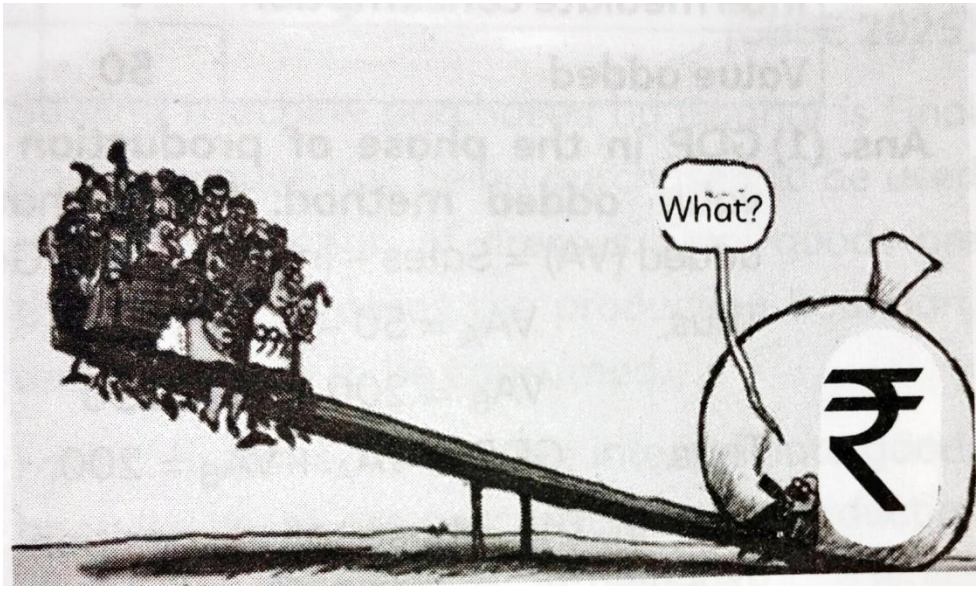
14. Explore four main functions of the RBI and how each of these functions contributes to the overall growth of Indian economy. **4**

15.A. Calculate Net National Product at Factor Cost from the data given below: **4**

Particulars	**₹ in Crores**
i. compensation of employees	20000
ii. Wages in kind	250
iii. Good and service tax	2500
iv. Gross domestic fixed capital formation	6850
v. Net factor income from abroad	600
vi. Operating surplus	6000
vii. Mixed income	16000
viii. Net exports	-500

OR

15.B.



How uniform is the distribution of GDP? It still seems that a majority of the people are poor and a few benefited.

16.A. Suppose an economy is in equilibrium. From the following data, calculate investment expenditure in the economy: **4**

i. National income =₹ 40000 crore
ii. MPC= 0.8
iii. Autonomous consumption ($\bar{c}$) = ₹100crore.

2

"With the objective to correct deflation, RBI may decrease the bank rate.

16.B. Discuss the rationale behind the step taken by the RBI.

OR **3**

16.C. Suppose the following information is given about a hypothetical economy:

C= 100+0.75Y
Io= 200
Where C = Consumption and Y = Income.
Io = Autonomous Investment
Calculate the following on the basis of the given information:-

a. Equilibrium level of income
b. Aggregate demand at equilibrium level of income
c. Marginal propensity to save

3

16.D. Give reasons, state whether the following statements are true or false.

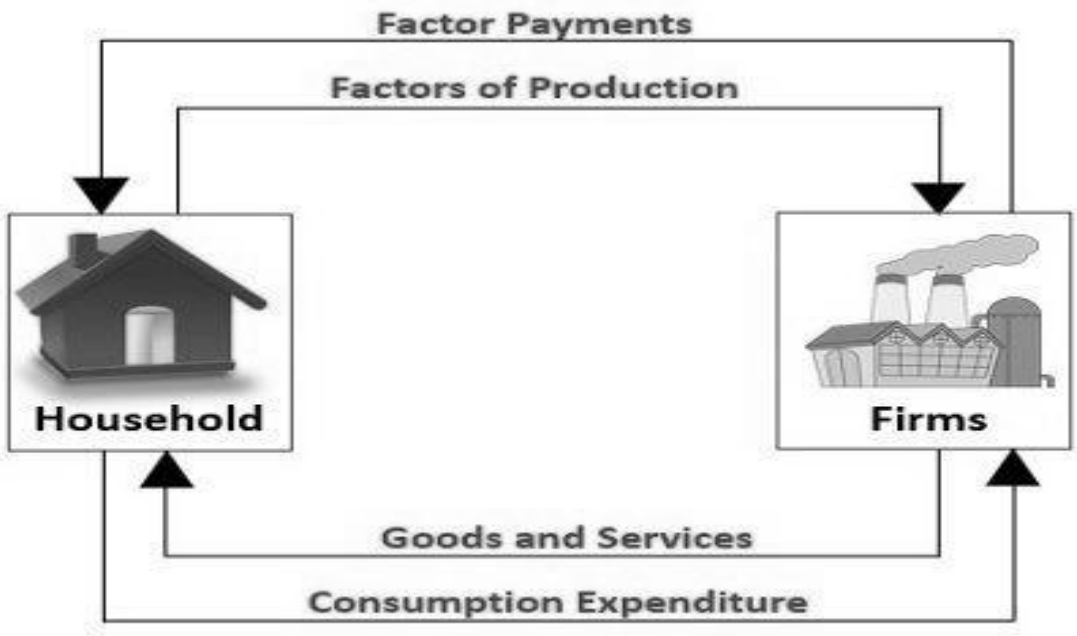
i. When MPS is less than MPC, the value of investment multiplied will be greater than 5.

ii. Value of investment multiplier varies between 1 and infinity.

17. Read the given text carefully:-

The circular flow of income is a concept for better understanding of the economy as a whole and for example the National Income and Product Accounts (NIPAs). In its most basic form, it considers a simple economy consisting solely of businesses and individuals, and can be represented in a "circular flow diagram." In this simple economy, individuals provide the labour that enables businesses to produce goods and services.

Alternatively, one can think of these transactions in terms of the monetary flows that occur. Businesses provide individuals with income (in the form of compensation) in exchange for their labour. That income is spent on the goods and services businesses produce. The circular flow diagram illustrates the interdependence of the "flows," or activities, that occur in the economy, such as the production of goods and services (or the "output" of the economy) and the income generated from that production. The circular flow also illustrates the equality between the income earned from production and the value of goods and services produced.



Two-Sector Model

A. Identify and differentiate between the two flows discuss in the given case. **4**

B. How are the two flows inter related to each other. **2**

SECTION B- INDIAN ECONOMIC DEVELOPMENT

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

Statement 1: India developed a sound industrial base during colonial rule.
Statement 2: The industrial sector was crying for modernisation, diversification, capacity building and increased public investment during British rule.

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

19. Read the following statements-Assertion(A) and Reason(R). **1**
Choose one of the correct alternatives given below:-
Assertion(A)- The goal of equitable distribution of land was fully served by abolition of intermediaries, in the post-independence India.
Reason(R)- Big landlords challenged the land ceiling legislation, delaying the implementation and subsequently escaping from the legislation.

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.

1

20. Read the given text carefully:-
"The government has now decided to further promote the development of mutual funds by throwing the field open to the private sector and joint sector mutual funds. In order to save card the interest of the investing public, and to encourage a healthy growth of the capital markets, a comprehensive set of guidelines is being evolved for the operation of all mutual funds".
Identify the sector under which the aforesaid reform was introduced and choose the correct option:-

Alternatives:
a. Industrial
b. Financial
c. Tax
d. Foreign Trade

21. ***"Expenditure on health"*** is one of the sources of Human Capital Formation where, _____ is one of the most suitable curative measures. **1**

a. Vaccination
b. Medical intervention during illness
c. Spread of health awareness
d. Provision of clean drinking water

22. Read the following statements-Assertion(A) and Reason(R). Choose one of the correct alternatives given below:- **1**
Assertion(A)- Indian rural credit system was significantly transformed with the implementation of technology reforms in agriculture sector.
Reason(R)- Green Revolution led to the diversification of the portfolio of rural credit towards production oriented lending.

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.

23. ***"In Delhi, street vendors and small shop owners contribute significantly to local GDP but let access to social security, health insurance, or pension schemes.***
This situation highlights:- **1**

a. Expansion of formal sector employment
b. Contribution of informal sector with poor worker protection
c. Success of labour welfare policies
d. Decline in workforce participation rate

24. Match column I with column II and choose the correct option:- **1**

Column I	**Column II**
A. WTO	I. Provide short term loans to solve the Balance of Payments problem.
B. RBI	II. Is a multilateral trade negotiating body
C. IMF	III. Facilities landing for reconstruction and development
D. IBRD	IV. Is the Central bank of India

Options:-
a. A-II, B-I, C-III, D-IV
b. A-II, B-IV, C-III, D-I
c. A-II, B-III, C-IV, D-I
d. A-II, B-IV, C-I, D-III

25. During the colonial period, India's demographic profile revealed_____. **1**

a. Low birth rate
b. Low death rate
c. High birth rate
d. High literacy

26. Read the following statements-Assertion(A) and Reason(R). **1**
Choose one of the correct alternatives given below:-
Assertion(A)- In a capitalist economy, private entities own resources, whereas in a socialist economy resources are owned by the state.
Reason(R)- In a socialist economy, it is assumed that the government knows the exact needs of the people.

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

27. Agricultural marketing is a process that involves the_____ off agricultural commodities. **1**
(Choose the correct option to fill up the blank).

I. Privatization
II. Processing
III. Assembling
IV. Grading

Options:
a.I and II
b. II and III
c. I, II, and III
d. II, III and IV

28.A. Discuss briefly the rationale behind adopting ***" Self Reliance"*** as a planning objective for the Indian economy. **3**

OR

B. ***"To promote Green Revolution, the Indian government provided fertilizers subsidies to the farmers"*** **3**
Briefly explain any two arguments in favour of such subsidies.

29. Study the following images carefully:- **3**





Identify and discuss briefly the types of employment sectors indicated.

30.A. Refer to the given information carefully:- **4**

	1921-30	1941-50	Increase in expectation of life during 20 years
Expectation of life at birth	26 years and 11 months	32 years and 5 months	5 years and 6 months
Expectation of life at age 10	36 years and 5 months	39 years	2 years and 7 months

Source: *Census of India 1951*

Answer the following questions on the basis of the given information and common understanding:

i. Identify and define the demographic indicator given in the above table.

ii. List any two such demographic indicators.

iii. State the stage of demographic transition India entered in 1921.

30.B.

OR

What was the two fold motive behind the systematic de - industrialisation brought into effect by the British in pre-independent India?

31. ***"After 1991, reforms in external sector lead to an increase in foreign exchange inflows".*** **4**
Justify the given statement with valid argument.

32.A. ***"It would be unclear to say that, the growth of human capital lays the ground for economic growth of a nation"*** **3**
Do you agree with the given statement? Support your answer with valid illustrations.

32.B. What is meant by physical capital? **1**

33.A. State and elaborate whether the following statement is true or false, with valid arguments. **3**
In the recent past, the Government of India has taken crucial steps, like Jan- Dhan Yojana, for efficient allocation of financial resources.

33.B. ***"Navratna Policy was facilitated the maintenance, promotion and disinvestment of Public Sector Undertakings".*** **3**
Justify the given statement with valid arguments.

OR

33.C. Discuss any two liberalization measures pertaining to the financial sector, introduced by the government of India during the economic reforms process of 1991. **3**

33.D. ***Privatization measures may not achieve full employment.*** **3**
Defend or refute the argument.

34. Read the following text carefully:-

Tamil Nadu Women in Agriculture (TANWA) was a project initiated in the late 1980s in Tamil Nadu to train women in the latest agricultural techniques and in organic farming. It encouraged women to actively participate in raising agricultural productivity and family income. At a Farm Women's Group in Tiruchirapalli, run by Anthoniammal, trained women are successfully making and selling vermicompost and earning money from this venture. Many other Farm Women's Groups are creating savings in their group by functioning like mini banks through a micro-credit system. With the accumulated savings, they promote small-scale household activities like mushroom cultivation, soap manufacture, doll making or other income-generating activities.

(A) What was the main objective of the Tamil Nadu Women in Agriculture (TANWA) project? Explain briefly. **2**

(B) How does TANWA help rural women improve their income and agricultural productivity? Mention any two ways. **2**

(C) Identify and explain one income-generating activity promoted by TANWA through Farm Women's Groups. **2**

****

Name: _____ Sec: _____ Roll No.: ____

SET-A

BURNPUR RIVERSIDE SCHOOL, BURNPUR
HALF YEARLY EXAMINATION : [2026-2027]
ECONOMICS(030)
CLASS : XII

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

==========

General Instructions :

1) This question paper contains two sections:

Section A- Macro Economics
Section B- Indian Economic Development

2) This paper contains 20 Multiple Choice Questions type questions of 1mark each.

3) This paper contains 4 Short Answer Questions type questions of 3 marks each to be answered in 60 to 80 words.

4) This paper contains 6 Short Answer Questions type questions of 4 marks is to be answered in 80 to 100 words.

5) This paper contains 4 Long Answer Questions type questions of 6 marks each to be answered in 100 to 150 words.

==========

SECTION A- MACRO ECONOMICS

1. Economic territory of a country in which economic activities of the country generates its domestic income is called_____ **1**

Alternatives:
a. National territory
b. Domestic territory
c. Political territory
d. Geographical territory

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

Assertion(A)- Evolution of money has facilitated contractual payment.

Reason(R)- In barter system , deferred payments are made in the form of goods.

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.

3. Read the following statements carefully. **1**
Statement 1: If in an economy the level of income increases (∆Y), it will always proportionately increase the level of consumption (∆C).
Statement 2: Marginal Propensity to Consume (MPC) and Marginal Propensity to Save (MPS) are always equal to each other.

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. A student tried to estimate GDP at MP using the following value flow. **1**
Answer provided by the student:-
Gross value added= final output of firm A+ final output of firm B+ final output of firm C
= ₹1800=₹ 300+ ₹500+ ₹1000(crore)
What is the conceptual error in the student's method of calculating GDP MP?

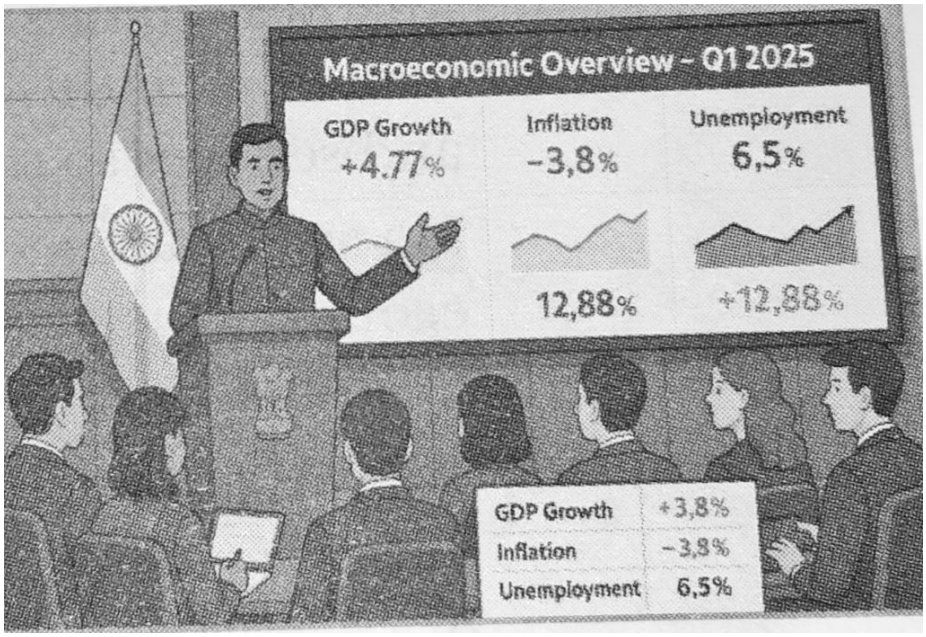
a. Over estimation of GDP MP due to ignorance of intermediate consumption.
b. Final output should be taken at the last stage of production only when output of one firm is used as input by the other.
c. Only value added at each stage should be summed.
d. All of these.

5. Suppose in a hypothetical economy, the central bank increases the reserve ratio from 10% to 25%. Keeping the amount of initial deposits constant at **1**

rupees 1000 crore, the amount of total money creation would be ₹_____ crore.

a. ₹10,000
b.₹4000
c.₹6000
d.₹5000

6. The image along side shows are government official unveiling a large digital screen display indicators in a conference being attended by business houses. **1**
The economic scene shown in the image is best associated with:



a. Price determination in a competitive market
b. Profit maximization by a firm
c. Use of macroeconomic data for economic planning
d. Determination of utility by a consumer

7. Read the following statements carefully. **1**
Statement 1: The producers suffer losses when actual stocks are less than the desired stocks.
Statement 2: Output is determined by the level of investment in the economy.

In light of the given statements, choose the correct alternative from the following:
a. Statement 1 is true and Statement 2 is false

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

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

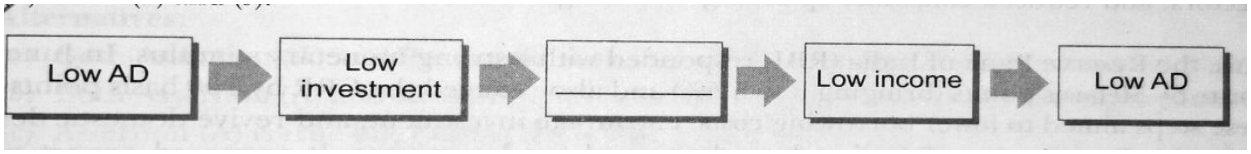
Assertion(A)- Real Gross Domestic Product is a better indicator of economic growth of a nation as compared to Nominal Gross domestic Product.
Reason(R)- Real Gross Domestic Product measures the value of goods and services at current year prices.

Alternatives:
a. Both Assertion (A) and Reason(R) are true and Reason® is the correct explanation of Assertion (A).
b. Both Assertion (A) and Reason(R) are true but Reason® 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.

9. Money value is equal to commodity value in case of_____ **1**

a. Fiat money
b. Full bodied money
c. Fiduciary money
d. Credit money

10. On the basis of the above flow chart answer the following question:- **1**



Choose the correct alternative to be filled in given blanks:-

a. Low savings
b. Low inducement to invest
c. Low output
d. Low profit

11.A. Justify the following statement with valid arguments: **3**

Money supply in an economy is an example of a stock variable.

OR

11.B Justify the following statement with valid argument: **3**
"The Central Bank provides several banking services to the Government."

12. How will you treat the following in the calculation of GDP of India? Give reasons for your answer. **3**

i. Profit earned by a branch of foreign bank in India.
ii. Salaries of Indian employees working in embassy of Japan in India.
iii. Salary of residents of Japan working in Indian embassy in Japan.

13. For a hypothetical economy, assume the government increase and infrastructure investment by ₹10000 crore. 80% of a additional income is consumed in the economy. Estimate the increase in income and the corresponding increase in consumption expenditure in the economy. **4**

14. ***"The RBI performs the same function for the government as the commercial banks perform for the general public."*** **4**
Discuss briefly any two such functions performed by the central bank for the Government of India.

15.A. Calculate Net Domestic Product at Factor Cost from the data given below: **4**

Particulars	**₹ in Crores**
i.Gross National Product at Market Price	2500
ii. Consumption of fixed capital	200
iii. Good and service tax	20
iv. Subsidies	50
v. Net factor income from abroad	50
vi. Changes in stocks	30
vii. Unexpected loss of a fixed assets	500

OR

15.B. ***"Circular flow of income principle is based on the assumption--- One's expenditure is other's income"***
Justify the given statement.

16.A. The saving at different levels of income are given in the following schedule:- **4**

Income: (₹crore)	0	200	400	600	800	1000
Saving: (₹crore)	-120	-60	0	60	120	180

On the basis of the given schedule, answer the following questions:-

i. Calculate Marginal Propensity to Consume (MPC) at a different levels of income.

ii. If investment is ₹120 crore, determine the equilibrium level of income.

iii. Derive the consumption and saving function.

2

iv. What is the break - even level of income?

16.B. What is investment multiplier? **3**

OR

16.C Diagrammatically explain how consumption function is derived from saving function. **3**

16.D. ***"In an economy, Aggregate Demand(AD) is more than Aggregate Supply(AS)."***

Elaborate the possible impacts of the same, on the level of output, income and employment.

17. Read the given text carefully:-

The Government of India released a report on the country's economic performance, highlighting the real GDP growth rate of 6% over the past year. The report emphasised the importance of real GDP as a measure of economic health, as it accounts for inflation and reflects the true value of goods and services produced. However, the report also acknowledged certain limitations of real GDP. It pointed out that real GDP does not account for income distribution, environmental degradation, or the informal economy. Additionally, it does not measure the overall well-being or happiness of the population. The government plans to address these limitations by incorporating alternative indicators to provide a more comprehensive view of economic progress.

On the basis of the given text and common understanding, answer the following questions:

(i) How does real GDP provide a more accurate measure of economic growth compared to nominal GDP? Explain using appropriate economic reasoning. **4**

2

(ii) Do you think relying solely on real GDP as a measure of economic well-being is sufficient? Justify your answer.

SECTION B- INDIAN ECONOMIC DEVELOPMENT

18. During the British rule, India's foreign trade had various features except___ **1**

___

a. Respective policies of commodity production, trade and tariff
b. British Monopoly over India's export and imports
c. Free trade from India to the rest of the world
d. Large export surplus

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

Assertion(A)- Licence Permit Raj was a major obstacle for growth of private sector.
Reason(R)- Private sector wasted huge amount in obtaining licences, rather than on improving the product, quality and international competitiveness.

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.

20. **Read the following passage carefully and answer the question that follows:** **1**

Multinational company based in the United States, hires an Indian firm to provide customer support and data processing services. The Indian company performs be services at a lower cost while maintaining quality standard. This practice has created employment opportunities in India's service sector.
The above situation is an example of:

Alternatives:
a. Liberalisation
b. Outsourcing
c. Disinvestment
d. Industrial Licensing

21. ***'Skill India'*** program launched by the government is not an attempt to increase_____ in India. **1**

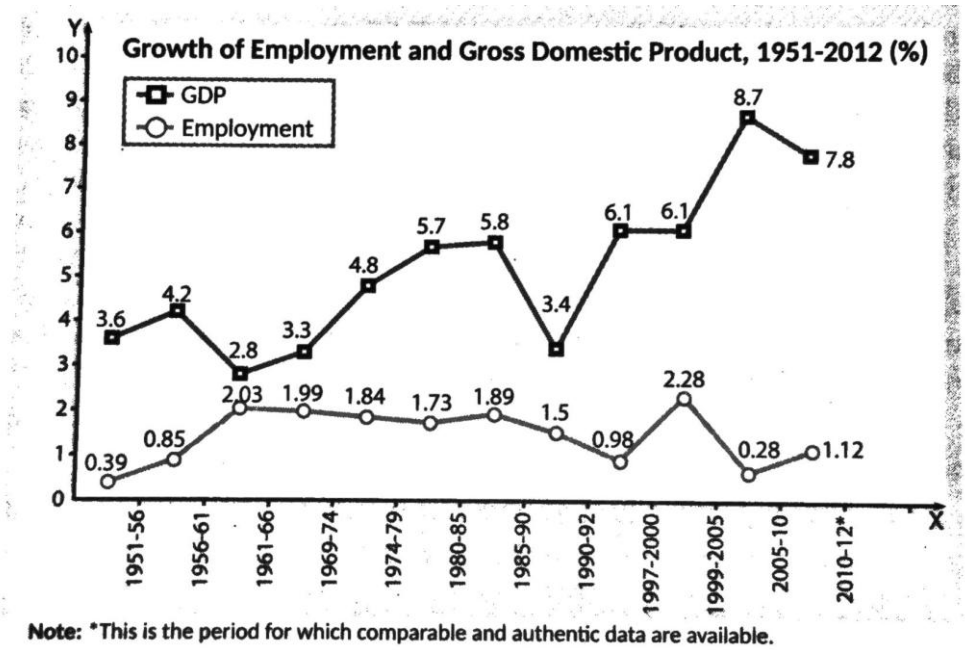
a. Human Capital Formation
b. Efficient utilisation of inputs
c. Increase in Gross Domestic Product
d. Inadequate spread of vocational education

22. Read the following statements-Assertion(A) and Reason(R). Choose one of the correct alternatives given below:- **1**
Assertion(A)- Non- Institutional credit often lead to a debt trap for the farmers.
Reason(R)- Money lenders , traders and commission agents charge exorbitantly high interest rates from the farmers and manipulated the accounts.

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.

23. **1**



The given chart indicates the problem of_____ in the Indian economy, post 1990-92.

a.Informalisation of workforce
b. Casualisation of workforce
c. Jobless growth
d. Formalisation of workforce

24. Match column I with column II and choose the correct option:- **1**

Column I	**Column II**
A. Foreign exchange crisis	I. Fall in foreign exchange reserves
B. New industrial policy	II. Announced in 1991
C. MRTP Act	III. Restricted concentration of economic power
D. Fiscal deficit	IV. Excess of government expenditure over revenue

Options:-
a. A-I, B-II, C-III, D-IV
b. A-II, B-III, C-IV, D-I

c. A-IV, B-I, C-II, D-III
d. A-III, B-IV, C-I, D-II

25. Occupational structure refers to the distribution of_____ across primary, secondary and tertiary sectors of the economy. **1**

a. Labour force
b. Population
c. Working population
d. None of these

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

Assertion(A)- Under the land reforms, Indian government fix the minimum land size which could be owned by an individual.
Reason(R)- The purpose of land ceiling was to avoid the concentration of land ownership in a few hands.

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

27. Farmer wants to sale wheat through a regulated market. **1**
Arrange the following steps in the correct sequence:-

i. Auction of the produce
ii. Weighing and grading
iii. Harvesting and transportation to the mandi
iv. Payment to the farmer

Options:
a. iii-ii-i-iv
b. ii-iii-i-iv
c. iii-i-ii-iv
d. i-ii-iii-iv

28.A. ***"Import substitution policy, if not applied carefully, can be a double-edged sword for any economy"***. **3**

Do you agree with the given statement? Justify your answer with valid arguments.

OR

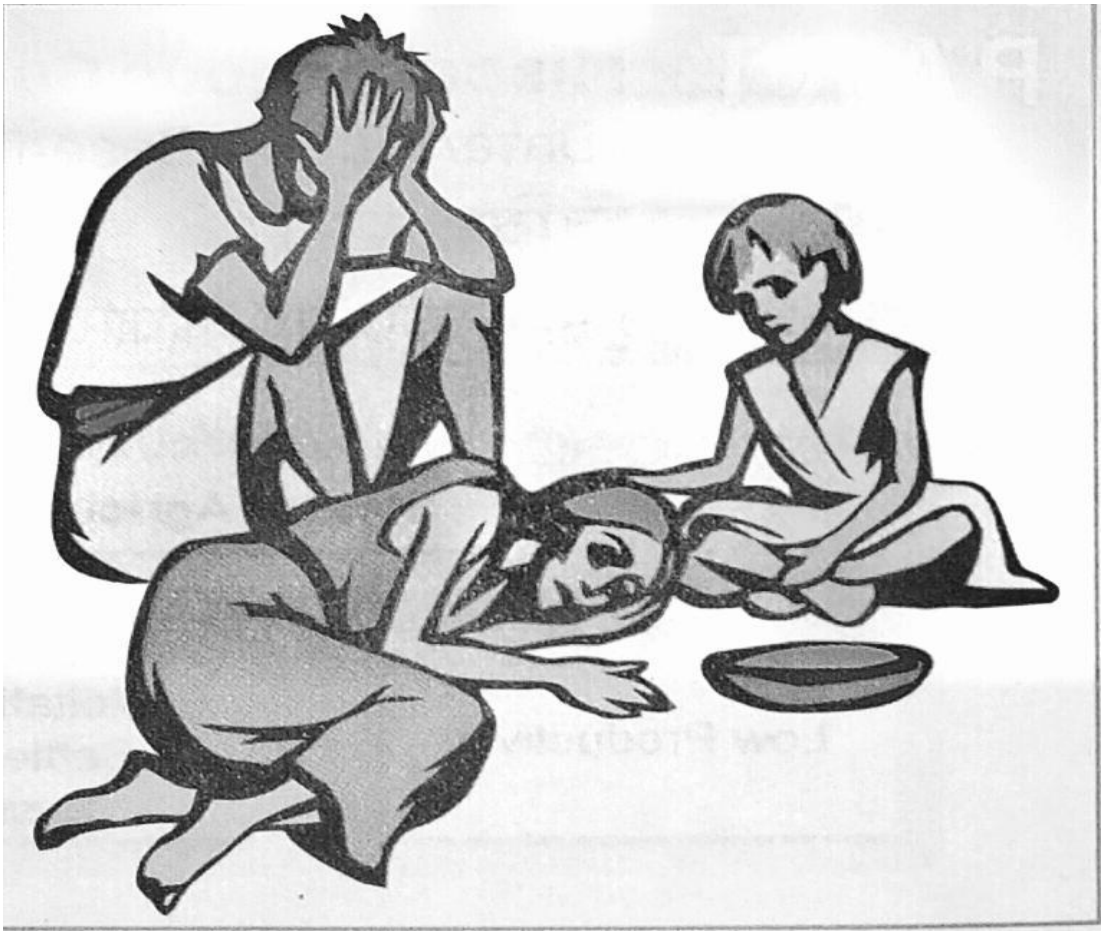
B. ***"Despite the implementation of Green Revolution, 65% of India's population continued to be engaged in the agricultural sector till the 1990's".*** **3**

Justify the given statement with valid explanation.

29. ***"The participation rate of people in economic activities in rural areas is more than that in urban areas".*** **3**

Justify the given statement.

30.A. **4**



The image alongside reflect a common situation faced by many Indian during British colonial rule. Analyse the same and answer the following questions.

i. Identify the economic crisis depicted in the image.
ii. Analyse any two economic policies of the British that contributed to conditions of famine in India.

OR

30.B. ***"Opening up of Suez Canal dealt in establishing the British Monopoly control over India's foreign trade".***
Justify the given statement with valid arguments.

31. ***"Globalisation has been a process for India with only positive results".*** **4**
Depend on refute the given statement with valid explanation.

32.A. ***"Expenditure on On – The - Job - Training is an important means of Human Capital Formation in an economy".*** **3**
Give valid reasons to justify the given statement.

32.B.
What is meant by brain drain? **1**

33.A. ***"Under the liberalization measures taken by the Government of India, Trade and Investment Policy reforms where extremely crucial".*** **3**
Reject or support the given statement with valid arguments.

33.B. Defend or refute the following statement with valid arguments:

33.C. ***"New Economic Policy 1991 altered the role of RBI in the economy.*** **3**

OR

"Privatisation and disinvesment are often used interchangeably, but they differ in their scope and impact".

33.D. Do you agree with the above statement? Justify your answer with valid distinctions and examples. **3**

"Benefits of the Green Revolution where restricted to few states and few crops in initial stages of planning". **3**
Elaborate the above statement with valid explanation.

34. Read the following text carefully:-

Agricultural diversification in India involves shifting farm activity from traditional food grain cultivation towards high-value crops such as fruits, vegetables, spices, medicinal plants, and floriculture. It also includes allied activities like dairy, poultry, fisheries, and beekeeping. This shift is essential for improving farmers' incomes, ensuring food and nutritional security, and making agriculture more sustainable.

In recent years, challenges such as small landholdings, declining soil fertility, and groundwater depletion have made crop diversification

necessary. To support this, the government has launched schemes to promote horticulture, set up cold storage infrastructure, provide market linkages, and encourage Farmer Producer Organisations (FPOs). Moreover, as consumer demand rises for organic, nutritious, and processed food products in urban areas, diversification can help rural farmers meet this demand while reducing their risk of crop failure.

(A) Why agricultural diversification is essential for livelihood. **2**

(B) State any two key government initiatives supporting agricultural diversification. **2**

(C) Discuss the importance of agricultural diversification in the context of sustainability and risk reduction. **2**

****

Name:_____ Sec:_____ Roll No:____

CODE-B

BURNPUR RIVERSIDE SCHOOL, BURNPUR
HALF YEARLY EXAMINATION: [2026-2027]
ENGLISH CORE
Class – XII

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

==========

GENERAL INSTRUCTIONS:

Read the following instructions very carefully and strictly follow them:

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

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

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

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

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

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

SECTION A 22
READING SKILLS

1. Read the passage given below: 12

1. As a form of expression, graffiti is famously characterized by outlaw values; the creation and display of graffiti countered societal rules and was considered by some as vandalism. Not only was it symbolic of rebel values but was also linked to destruction of property. These links between graffiti culture and rebellion were age-old and some say, were popularized by hip-hop culture.

2. Imagine waking up one morning, to see your walls smeared with black paint – names, symbols, messages. The most interesting bit is that these wall artists were never caught red-handed. It was all done stealthily. It was almost as though people were marking their territory using painted symbols and slogans. The change was creeping in. Mobile numbers and captivating phrases gradually became marketing tools for free advertising. Catchy phrases tickled the curiosity and calls were made to those numbers.

3. Over a period of time, there was a shift in perception. Blank walls beckoned invitingly and artists saw whitewashed walls as an opportunity to display their work in free and open settings. The city became one large canvas; the illegal 'gang activity' became an art form on display in walking galleries. Graffiti was gradually being replaced and the stigma of illegality was being dropped. There was a move to embrace rather than condemn.

4. The colours, shapes and subjects became cultural themes. What was once rebellious expression is artistic talent at its vibrant best, rich in images of plants, animals and unspoiled landscapes. The painted walls encouraged by residents and governments have created their own ecosystem – a reconciliation of nature with man-made forces.

5. The monotony and uniformity of urban life is today infused with human vitality and beauty. Cities speak proudly about the painted walls and clamour to be the first to preserve culture and history through these. Graphic displays of social awareness issues effectively and economically reach out to the common man. Silent art speaks volumes. Be it hygiene, conservation, education or rights and duties – the message is conveyed in an animated, colourful manner without being an imposition.

Based on your understanding of the passage, answer the questions given below:

I. Complete the sentence by choosing an appropriate option. 1

Graffiti in the earlier years was

a. considered a valuable legacy.
b. done by prominent artists.
c. An expression of rebellion.
d. Supported by society.

II. The writer would agree with all of the following EXCEPT: 1

a. Graffiti art was a paid activity.
b. Wall art was an age-old tradition.
c. Graffiti became popular as a marketing tool.
d. People were curious by what was scribbled on walls.

III. The passage states a shift in attitude. Identify the best option that indicates this shift. 1

a. rejection to dismissal
b. confusion to clarity
c. imposition to acceptance
d. dislike to acceptance

IV. Comment on the writer's statement, 'It was done stealthily'. 1

V. Select the word from para 2 of the passage that coveys the opposite of ‘boring’. 1

VI. Complete the following sentence with reference to the passage. 1

The city became one large canvas because _____.

VII. Why does the writer say that the stigma of ‘illegality’ was dropped? 1

VIII. Find a word from the paragraph 5 which means ‘shriek / scream’. 1

IX. List two reasons why graffiti was not popular among people. 2

X. List two ways in which wall art is beneficial to society. 2

2. Read the following passage carefully. 10

1. A recent survey conducted by an independent research firm sought to measure levels of happiness among youth aged 16-24 years in seven countries. The findings revealed some intriguing insights into what makes today’s youth happiest, as well as which factors influence their overall well-being. In India, an overwhelming majority of the youth reported feeling satisfied with their lives, with 87% rating of their overall happiness as 'high' or 'very high.' Financial security was identified as the primary source of happiness for 66%, followed by family support (89%), having a purpose in life (50%) and work or studies (40%). Unfortunately, 65% reported feeling stress related to academic performance or workload, while 25% reported feeling lonely. These figures point to a need for increased mental health support among India's youth.

2. These surveys also revealed that family support is an important source of contentment for young people across countries. In Europe, 59% of respondents said that their families were a major source of happiness; in France this figure was 67%, and 63% in Germany. In North America, 64% rated family as an important factor for well-being in Canada, while 61% did so in the United States. Similarly, 89% of survey respondents in India named family support as a major contributor to their overall contentment

level.

3. It is clear that stress has a significant impact on the happiness of today's youth. The findings suggest that young people need better resources to manage their mental health and well-being. This may include access to counselling services, mindfulness activities and support groups to help them cope with challenging circumstances. It is also important to provide financial support so as to reduce some of the economic pressures.
4. In India, 65% of youth surveyed reported feeling anxious about their academic performance or workload, while 25% felt lonely. These figures are especially significant given how important family support is for young people's overall contentment.

Answer the following questions, based on the above passage:

I. Which of the following factors, with reference to the given passage, does ***not*** play a substantial role in the well-being of Indian youth? 1

a. Family support and strong ties
b. Social connection and technology
c. Books and literature
d. Economic stability

II. What are the top choices which are of maximum value to today's youth? 1

1. Collectivism
2. Social media
3. Individualistic society
4. Family ties

Options:

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

III. Write the following sources that provide happiness to today's youth in descending order: 1

a. purposefulness
b. financial status
c. family support
d. stress

IV. Elaborate giving data, the statement "Stress has a significant impact on the happiness of today's youth". 1

V. State whether *True* or *False*, with reference to the given passage: 1

It is not necessary to provide financial support to the youth as only academic performance plays an upper hand in deciding the stress level.

VI. The mental health of today's youth can be managed by resources like …….. and …….. 1

VII. What are the two findings that the survey mentioned in paragraph 1 reveals? Answer in about 40 words. 2

VIII. Explain in about 40 words the statement "It is also important to provide financial support so as to reduce some of the economic pressures." 2

SECTION B 18

CREATIVE WRITING SKILLS

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

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

OR

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

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

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

OR

B. You and your parents have received an invitation for your elder cousin's wedding to be held in Jaipur. All of you would be delighted to attend. Draft a reply to your cousin accepting the invitation and sharing your excitement while congratulating him. You are Rohini / Rohit.

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

A. You are Kavya / Karan Tripathi, an educationist, residing at 46, Uttam Nagar, Delhi. You strongly feel that students of today should

- What is media literacy?
- What are the ways that it can be integrated in the school curriculum?
- Benefits of media literacy
- Helps build critical thinking skills
- Enhances effective communication skills

be made aware of media literacy and it should be imparted through the school curriculum. Write a letter to the editor of a national daily, stressing on the significance of introducing media literacy in schools and its benefits. You may use the following cues along with your own ideas to draft the letter.

OR

B. You are Rupali / Rupam of 51, Regent Estate, Kolkata. You have recently come across the following advertisement and wish to apply for the post. Write a job application along with your bio-data.

Rising Sun Advertising Agency

Requires

Graphic Designer

Qualification: Bachelor's Degree in Fine Arts (B.F.A) or Bachelor of Design (B. Des.)

Experience: Minimum 3 years in the relevant field

Skills Required: Proficiency in design software, familiarity with print design and web design basics

Apply to: The HR Manager, Rising Sun Advertising Agency.

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

A. With the increasing popularity of social media, there is a threat, a new form of addiction which is impacting young and old alike. Writer an article exploring the positive and negative effects of social media on people today. You may use some of the given cues along with your own ideas. You are Sumita / Sumit, a concerned citizen.

Benefits of social media:

- Access to information
- Helps spread awareness
- Less expensive than traditional marketing

Disadvantages:

- Indiscriminately used by people
- Misinformation and fake news
- Can affect mental health, disrupt sleep patterns, increase stress

OR

B. Your school organized a 'Tastes of India' week to educate students on the diversity of Indian cuisine. Write a comprehensive report detailing the activities conducted during the week. Describe the event's participation details, chief guest and the overall impact of the programme on the school. You are Arti / Aryan, a student of Class XII and the Secretary of the School Magazine Editorial Board.
You may organize your report on the basis of
What – When – Where – Who – Why – How

SECTION C **40**
LITERATURE

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

A.

Those who prepare green wars
wars with gas, wars with fire
victory with no survivors,
would put on clean clothes
and walk about with their brother
in the shade, doing nothing.

(Keeping Quiet)

I. What does the imagery of 'walking about with their brothers in the shade' primarily represent? 1

a. The readiness for further conflicts.
b. A return to normal activities post-conflict.
c. A moment of unity and peaceful reflection.
d. The physical environment of a typical war zone.

II. **Read the assertion and reason below, with reference to the given extract.**

Assertion: *The poet advocates for 'doing nothing' as a way to prevent the devastation of war.*

Reason: *'Doing nothing' refers to a time for stopping any action for a few moments.*

Choose the correct option regarding their relationship:

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

III. What is a common outcome of all the wars described? 1

IV. Complete the following suitably. 1

The putting on of 'clean clothes' by the warmongers, symbolises ……...

V. Select the correct option from those given in brackets, to fill in the blank. 1

The excerpt tells us that the speaker ……. (condemns /

glorifies) the destructive nature of modern warfare.

VI. How can the message in the excerpt, about the outcome of wars be applied to promote peace? 1

OR

B.

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

(A Roadside Stand)

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

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

II. **Read the assertion and reason below, with reference to the given extract.** 1

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

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

Choose the correct option regarding their relationship:

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

d. The Assertion is false but the Reason is true.

III. Select the phrase that suggest the following. 1

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

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

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

V. Complete the following suitably: 1

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

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

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

A. *You lose all earthly sense of perspective and time here. The visual scale ranges from the microscopic to the mighty: midges and mites to blue whales and icebergs as big as countries (the largest recorded was the size of Belgium). Days go on and on and on in surreal 24-hour austral summer light and a ubiquitous silence, interrupted only by the occasional avalanche or calving ice sheet, consecrates the place. It's an immersion that will force you to place yourself in the context of the earth's geological history. And for humans, the*

prognosis isn't good.

(Journey to the End of the Earth)

I. The 'visual scale' refers to: 1

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

II. State True or False. 1

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

III. Complete the sentence appropriately: 1

The use of the word 'surreal' suggest ……

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

OR

B. *Derry: But I'm not afraid …. I'm not afraid [pause] people are afraid of me.*

Mr. Lamb: Why should that be?

Derry: Everyone is. It doesn't matter who they are, or what they say, or how they look. How they pretend. I know. I can see.

Mr. Lamb: See what?

Derry: What they think?

Mr. Lamb: What do they think, then?

Derry: You think …. 'Here's a boy'. You look at me … and then you

see my face and you think that's bad. That's a terrible thing. That's the ugliest thing I ever say. You think, 'poor boy'. But I'm not. Not poor. Underneath you are afraid. Anybody would be – I'm. When I look in the mirror and see it, I'm afraid of me.

Mr. Lamb: No, not the whole of you. Not of you.

(*On the Face Of It*)

I. Which emotion dominates Derry's dialogue in this extract? 1

a. superiority
b. shrewdness
c. vulnerability
d. indifference

II. Complete the following suitably: 1

According to Derry, people put up a pretence when they see him because …….

III. Complete the following appropriately: 1

When Mr. Lamb says, 'No, not the whole of you. Not of you', he means …….

IV. State in one sentence: 1

What advice would you give to the people who pretend to look away when they see Derry's face?

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

A. *Then the poet spoke. He couldn't have addressed a more dazed and silent audience – no one knew what he was talking about and his accent defeated any attempt to understand what he was saying. The whole thing lasted about an hour; then the poet left and we all dispersed in utter bafflement – what are we doing? What is an English poet doing in a film studio which makes Tamil films for the simplest sort of people? People whose lives least afforded them the possibility of cultivating a taste for English poetry? The poet looked pretty baffled too, for he too must have felt the sheer incongruity of his talk about the thrills and travails of an English poet. His visit remained an unexplained mystery.*

(*Poets and Pancakes*)

I. Choose the appropriate option with reference to the extract. 1

'The audience were dazed' because

a. they were not accustomed to listening to poetry.
b. they had never before seen an Englishman.
c. they failed to comprehend what the poet was speaking.
d. they were already bored.

II. Where did the talk take place? 1

a. The Main Mall
b. Story Writing Department
c. Film studio
d. Subbu's office

III. Complete the sentence with reference to the extract. 1

The English poet was …… when he was addressing the dazed audience.

IV. The English poet's visit is an 'unexplained mystery' because 1

……..

V. Complete the analogy with a word from the extract: 1

noisy : silent : : assembled : ……

VI. Explain the following phrase with reference to the extract: 1

The poet felt 'the sheer incongruity of his talk'.

OR

B. *"Now I am going to tell you, Mr. Ironmaster, how things are", he said. "This whole world is nothing but a big rattrap. All the good things that are offered to you are nothing but cheese rinds and bits of pork, set out to drag a poor fellow into trouble. And if the sheriff comes now and locks me up for this, then you, Mr. Ironmaster, must remember that a day will come when you yourself may want to get a big piece of pork and then you will get caught in the trap."*
The ironmaster began to laugh.
'That was not so badly said, my good fellow. Perhaps we should let the sheriff alone on Christmas Eve.'

(The Rattrap)

I. What does the following phrase from the extract showcase: 'Cheese rinds.' 1

a. temptation
b. affirmation
c. gluttony
d. deprivation

II. What does the following line from the extract showcase about the ironmaster's nature? 1

'Perhaps, we should let the sheriff alone on Christmas Eve.'

a. materialistic
b. understanding
c. conniving
d. enterprising

III. What does the speaker mean when he says 'The whole world is nothing but a big rattrap'? 1

IV. Select the correct option from those given in brackets to fill in the blank. 1

By calling himself a 'poor fellow', the speaker emphasizes his …… (vulnerability / credibility)

V. What does the speaker imply through his warning to the ironmaster? 1

VI. Complete the following with a suitable reason: 1

In the extract, it is implied that the speaker would be locked up because …….

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

I. Why did Franz think of running away from school that morning? 2

(*The Last Lesson*)

II. Why can the bangle-makers not organise themselves into a cooperative? 2

(*Lost Spring*)

III. Describe both the physical and emotional impacts that the misadventure at the YMCA pool had on the narrator? 2

(*Deep Water*)

IV. What conflict of duties did Gandhi face in the Champaran incident ? 2

(*Indigo*)

V. What did Rudyard Kipling's wife say about Kipling's attitude towards interviews? 2

(*The Interview*)

VI. Why has the poet mentioned 'merry children spilling out of their homes' in the poem? 2

(*My Mother at Sixty-Six*)

11. Answer <u>ANY TWO</u> out of the three questions, in about 40-50 words each. 4

I. What is a first day cover? 2

(*The Third Level*)

II. What confusion does the Dewan have when the Tiger King broaches the topic of his marriage? 2

(*The Tiger King*)

III. What were the author's initial emotions on setting foot in Antarctica? 2

(*Journey to the End of the Earth*)

12. Answer <u>ANY ONE</u> out of the two questions, in about 120-150 words. 5

A. How is the transient nature of beauty and life portrayed in the poems 'My Mother at Sixty-Six' and 'A Thing of Beauty'?

OR

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

(*The Interview*)

13. Answer <u>ANY ONE</u> out of the two questions, in about 120-150 words. 5

A. How does Pearl S. Buck explore the theme of humanitarianism versus patriotism in the lesson 'The Enemy'? Support your answer with evidence from the text.

OR

B. Mr. Lamb's influence on Derry, saved Derry from his life of frustration and alienation. Substantiate this statement, citing evidences from the text 'On the Face OF It'.

****

Name: _____ Sec: _____ Roll No:___

CODE-A

BURNPUR RIVERSIDE SCHOOL, BURNPUR

HALF YEARLY EXAMINATION, 2026-27

ENGLISH CORE

Class – XII

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

==========

GENERAL INSTRUCTIONS:

Read the following instructions very carefully and strictly follow them:

i. *This question paper has 13 questions. All questions are compulsory.*
ii. *This question paper contains* ***three sections*** *- Section A:* ***Reading Skills,*** *Section B:* ***Creative Writing Skills*** *and Section C:* ***Literature.***
iii. *Attempt all questions based on specific instructions for each part. Write the correct question number and part thereof in your answer sheet.*
iv. *Separate instructions are given with each question/part, wherever necessary.*
v. *Adhere to the prescribed word limit while answering the questions.*
vi. *All the names, addresses, etc. used in the questions are fictitious. Resemblance, if any, is purely coincidental.*

SECTION A: READING SKILLS (22 marks)

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

1. Science fiction, often abbreviated as sci-fi, is a genre of literature and film that explores imaginative and futuristic concepts such as advanced technology, space exploration, time travel, and extra-terrestrial life. While sci-fi has long captivated audiences in western countries, its growth in India has been comparatively slower. However, the genre is gradually gaining popularity among Indian readers and writers.
2. One of the major advantages of science fiction is its ability to stimulate imagination and curiosity. It encourages readers to think beyond the present and explore possibilities that lie in the future. For students and young readers, sci-fi can act as a bridge between literature and science, making learning more engaging. Books like Isaac Asimov's *Foundation* or Indian writer Samit Basu's *Turbulence* have introduced scientific ideas in exciting narratives.
3. Science fiction also reflects social and ethical concerns. In a rapidly changing world, sci-fi allows authors to speculate on how technology might shape society, for better or worse. In India, where issues like climate change, over-population and digital surveillance are becoming more relevant, science fiction provides a creative lens

through which these problems can be examined.

4. Despite its potential, science fiction remains a niche genre in India. One of the key disadvantages is the lack of access to quality sci-fi literature in Indian languages. Most of the well-known works are written in English, which limits their reach. Moreover, there is a lack of mainstream platforms that promote Indian sci-fi writers. Many readers are unaware of home-grown authors contributing meaningfully to the genre.
5. To enhance the science fiction reading experience in India, several steps can be taken. Schools and colleges can include sci-fi stories in their curriculum to expose students to the genre early on. Indian authors should be encouraged to write in regional languages to broaden the audience base. Libraries and online platforms can host reading clubs and discussions to make science fiction more interactive and engaging.
6. In conclusion, science fiction has immense potential to grow in India. With the right support and exposure, it can become a powerful tool to inspire imagination, promote scientific thinking, and spark conversations about the future.

Answer the following questions, based on the above passage:

(i) **Complete the following suitably by choosing the correct option:** 1

In paragraph 1, the author uses the word *'comparatively'* to highlight _____.

A) the difference in growth / gap of sci-fiction in India vs Western countries.

B) that advanced technology, space exploration, time travel and extra-terrestrial life have long attracted western audiences.

C) the gaining popularity among Indian readers and writers.

D) All of the above factors.

(ii) Why does the writer refer to science fiction as a '*bridge*'? (Paragraph 2) - Because: 1

A) it connects youth to adults.

B) it makes learning more interactive.

C) it supports introduction to reading among early readers.

D) it helps build better engineers and doctors.

(iii) Complete the analogy with one word from paragraph 4 1

possibility : potential :: unique : _____

A) mainstream

B) access

C) homegrown

D) niche

(iv) According to Paragraph 1, how did the western countries react to science fiction? 1

(v) Identify one advantage of science fiction with reference to Paragraph 2. 1

(vi) Why is science fiction still not very popular in India? (Paragraph 4) 1

(vii) Provide one textual evidence with reference to Paragraph 4 to prove that there is a lack of mainstream platforms. 1

(viii) In what context does the author use the phrase '*broaden the audience base*' in Paragraph 5? 1

(ix) '*...science fiction provides a creative lens through which these problems can be examined*.' (Paragraph 3) 2

In the given line, what does the phrase '*creative lens*' refer to?

(x) Assess the feasibility of steps suggested to promote science fiction in India. (Paragraph 5) 2

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

1. **Introduction:** Nutrition plays a critical role in human development, especially during periods of growth, aging, and recovery. This case study explores the changing nutritional requirements across age groups from children to the elderly highlighting how dietary habits must adapt to support health and wellbeing.

2. **Methodology:** A team of dietitians conducted a three-month observational study across five schools, two universities, three workplaces, and two retirement communities. Nutritional intake was recorded using food diaries, and health parameters were monitored through BMI, energy levels and blood reports.
3. **Survey Examination:** Participants were grouped into four age categories: children (6-12 years), adolescents (13- 19 years), adults (20-59 years), and elderly (60+ years). Surveys assessed daily intake of macronutrients (carbohydrates, proteins, fats) and micronutrients (vitamins and minerals), alongside hydration habits and meal frequency.
4. **Results:** Children had higher energy and protein needs per kilogram of body weight, essential for growth and cognitive development. Adolescents showed increased calorie and calcium requirements due to rapid bone growth and hormonal changes. Adults required balanced intake to maintain weight and prevent chronic diseases, while the elderly needed more fibre, calcium and vitamin D to support bone health and digestion. Interestingly, adolescents consumed the most processed foods, while elderly participants had the most balanced diets due to regular meal routines. Adults often skipped meals due to work stress. Dehydration was common in both children and the elderly.

5. **Implications and Interventions:** The findings highlight the need for age-specific dietary education. In schools, awareness programmes on healthy snacks and hydration were introduced. For working adults, meal planning workshops and healthy vending machines were recommended. Retirement homes integrated vitamin D supplements and fibre-rich meals into weekly menus. Across all groups, hydration reminders were implemented using digital tools and scheduled water breaks.
6. **Conclusion:** Nutritional needs vary significantly with age, influenced by physical, cognitive, and lifestyle factors. Regular assessments and tailored interventions are essential for promoting long-term health across populations.

Answer the following questions, based on the above passage.

(i) What would the following be classified as? 1

Nutritional intake was recorded using food diaries.

A) Primary purpose
B) Secondary objective
C) Method of analysis
D) Research outcome

(ii) Paragraph 4 includes the words ‘development’ and ‘prevent’. Classify the following sentences as ‘development’ and ‘prevent’. 1

Sentence A: Children had higher energy and protein needs per kilogram of body weight, essential for growth.

Sentence B: Adolescents need increased calcium so that their bone growth is not impacted.

(iii) **Complete the sentence suitably.** 1

Digital tools were used to give hydration reminders to _____. (Paragraph 5)

A) ensure people did not get dehydrated
B) avoid starvation
C) ensure gradual weight loss
D) balance consumption of processed food

(iv) **Complete the following suitably.** 1

In the introduction, the researcher links changing dietary requirements to highlight _____.

(v) Although all age groups require balanced intake, why do the elderly need more fibre? (Paragraph 4) 1

(vi) What is the key takeaway of the study? 1

(vii) Give two points to support how the case study explored various age groups. (Paragraphs 2, 3) 2

(viii) Why is age-specific nutrition important? Give textual evidence to support your answer. 2

SECTION B: CREATIVE WRITING SKILLS

(18 marks)

(All details presented in the questions are imaginary and created for assessment purpose)

3. **Attempt any *one* of the two, (a) or (b), in about 50 words.** 4

(a) Your school is planning to conduct Cluster – II Basketball tournament. Write a **notice** for the school notice board informing the students about the details of the tournament. Also include participation criteria, registration process, and contact information. You are Shivani/Shivam, Sports Captain of ABC International School, Newtown. Put your notice in a box.

OR

(b) You are Mr. Sourav Sen, General Secretary of Resident Welfare Association, Riverdale Society, Asansol Riverside. Write a **notice** calling for a meeting of the residents to discuss the proposal of installing solar panels in your locality to meet the electricity demands of the society. Include other necessary details. Put your notice in a box.

4. **Attempt any *one* of the two, (a) or (b), in about 50 words** 4

(a) You are the Cultural Captain of the Student Council of Burnpur Riverside School, Burnpur. Your school is organising an Exhibition as part of its Independence Day celebrations. On behalf of the Principal, draft a **formal invitation** card to be sent to parents and guests. Mention a compelling highlight of the programme along with other necessary details.

OR

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

5. **Attempt any *one* of the two, (a) or (b), in 120 – 150 words.** 5

(a) As a resident of B/66 Mall Road, Guwahati, and a parent of a Grade XII student, you are deeply concerned about the declining writing habits among students in today's digital age. This trend significantly impacts their academic performance.

Writing skills require consistent practice, but increased dependence on internet resources has adversely affected children's ability to express themselves effectively through writing.

Write a **letter to the editor** of 'The Geo Youth Times' expressing your concern about this issue. Also, suggest measures to emphasize the importance of reading and writing skills in schools. You are Vidhi/Vaibhav.

OR

(b) You are Arati/Ashok from New Colony, Burnpur. You read the given advertisement and wish to **apply for the post advertised**. Write a job application with your bio-data.

Join Our Creative Team

Raleigh Planners

Needs Event Manager

Qualifications: A degree in hospitality business, or public relations.

Skills:

- Organisational and project management
- Strong communication skills
- Proficient in use of event software
- Ability to adapt and willingness to travel

Experience: 3 – 5 years

6. **Attempt any *one* of the two, (a) or (b), in 120 – 150 words.** 5

(a) You are Keshav/Karuna, a social worker and counsellor. You are concerned about the stressed behaviour of both parents and students during the time of examination. Write an **article** to be published in a local daily on '*Supportive parents and stress-free students*' giving ideas to enhance healthy and meaningful PARENT- WARD rapport and for making the atmosphere relaxed and encouraging during examination time.

OR

(b) Write a **comprehensive report** of the *CBSE's Young India Culinary Championship, 2026-27* held in your school with the aim of equipping learners with essential hospitality and culinary competencies along with fostering creativity and teamwork. Include details of the event, participation details, students' feedback and its overall impact on the student community. You are Sunidhi/Sudhakar, Student Editor.

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

Who – What – When – Where – Why – How

SECTION C : LITERATURE (40 marks)

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

(a) *Now we will count to twelve*
and we will all keep still.
For once on the face of the Earth
let's not speak in any language,
let's stop for one second,
and not move our arms so much.

(Keeping Quiet)

(i) The expression '*we will all keep still*' reflects:

A) the poet's willingness to keep quiet.
B) the significance of stillness.
C) the poet's appeal for collective engagement.

D) the purpose of counting up to twelve.

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

Assertion: *The poet advocates the importance of keeping quiet.*

Reason: *He believes that silence can bring out profound changes in our perspective and lifestyle.*

Choose the correct option regarding their relationship.

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

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

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

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

(iii) What does the poet want us to stop?

(iv) **Complete the following statement correctly:**

The poet urges the people to count to twelve so that _____.

(v) *'Counting to twelve'* is suggested as a _____ (synchronized/disorganized) effort for everybody to keep quiet.

(vi) How can the message in the excerpt, about silence and stillness be applied to promote peace in today's world?

OR

(b) *The little old house was out with a little new shed*
In front at the edge of the road where the traffic sped,
A roadside stand that too pathetically pled,
It would not be fair to say for a dole of bread,
But for some money, the cash, whose flow supports
The flower of cities from sinking and withering faint.

(A Roadside Stand)

(i) **The first two lines of the extract refer to the:**

A) description of the flourishing city.
B) flowing of traffic.
C) description of the roadside stand.
D) expectation of the rural people.

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

Assertion*: Rural people put up their stand at the edge of the road.*

Reason: *The flow of traffic will help them promote their business.*

Choose the correct option:

A) Both the assertion and the reason are true, but the reason is not the correct explanation of the assertion.
B) Both the assertion and the reason are true and the reason is the correct explanation of the assertion.
C) The assertion is true, but the reason is false.
D) The assertion is false, but the reason is true**.**

(iii) **Complete the following sentence with a suitable reason:**

The cash flow is important for urban life because _____.

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

Rural people put up their roadside stands in the hope of _____.

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

The expression 'flower of cities' reflects the _____ (prosperity / poverty) of city life.

(vi) Why is the roadside stand described as *pathetic*?

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

(a) *My Antarctic experience was full of such epiphanies, but the best occurred just short of the Antarctic Circle at 65.55 degrees south. The Shokalskiy had managed to wedge herself into a thick white stretch of ice between the peninsula and Tadpole Island which was preventing us from going any further. The Captain decided we were going to turn around and head back north, but before we did, we were all instructed to climb down the gangplank and walk on the ocean. So there we were, all 52 of us, kitted out in Gore-Tex and glares, walking on a stark whiteness that seemed to spread out forever. Underneath our feet was a metre-thick ice pack, and underneath that, 180 metres of living, breathing salt water. In the periphery Crab eater seals were stretching and sunning*

themselves on ice floes much like stray dogs will do under the shade of a banyan tree. It was nothing short of a revelation: everything does indeed connect.

(Journey to the end of the Earth)

(i) Which of the following is not a plausible interpretation of the phrase '*living, breathing'* used to describe the water beneath the ice?

A) It evokes a sense of continuous motion and vitality under the frozen surface.

B) The phrase highlights the contrast between static ice and the dynamic ocean life.

C) It implies that the ocean lies dormant and lifeless during the winter months.

D) The words convey the idea that nature remains active even in extreme conditions.

(ii) The author describes the moment near the Antarctic Circle as the best of epiphanies because _____.

(iii) The author's experience of walking on the frozen ocean revealed _____.

(iv) Support with evidence from the given extract, the Captain's decision to walk on the ocean.

OR

(b) *MR LAMB: They might. They might not. You'd have to take the risk. So would they.*

DERRY: No, you would. You might have me and lose all your other friends, because nobody wants to stay near me if they can help it.

MR LAMB: I've not moved.

DERRY: No....

MR LAMB: When I go down the street, the kids shout 'Lamey-Lamb.' But they still come into the garden, into my house; it's a game. They're not afraid of me. Why should they be? Because I'm not afraid of them, that's why not.

(On the Face of It)

(i) *"When I go down the streets, the kids shout Lamey Lamb."* The attitude of the speaker expressed in the above line is

A) his habit of finding fault.

B) he is timid and faint hearted.

C) his acceptance of reality and positive attitude.

D) his indifferent and careless attitude.

(ii) "*You'd have to take the risk.*" What is the 'risk' mentioned?

(iii) "*…it's a game.*" The 'game' referred to herein is _____.

(iv) List a character trait of Mr. Lamb as is manifested from the extract.

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

(a) *The make-up room had the look of a hair-cutting salon with lights at all angles around half a dozen large mirrors. They were all incandescent lights, so you can imagine the fiery misery of those subjected to make-up. The make-up department was first headed by a Bengali who became too big for the studio and left. He was succeeded by a Maharashtrian who was assisted by a Dharwar Kannadiga, an Andhra, a Madras Indian Christian, an Anglo-Burmese and the usual local Tamils. All this shows that there was a great deal of National Integration long before A.I.R. and Doordarshan began broadcasting programmes on national integration. This gang of nationally integrated make-up men could turn any decent-looking person into a hideous crimson hued monster with the help of truckloads of pancake and a number of other locally made potions and lotions. Those were the days of mainly indoor shooting, and only five percent of the film was shot outdoors. I suppose the sets and studio lights needed girls and boys to be made to look ugly in order to look presentable in the movie. A strict hierarchy was maintained in the make-up department.*

(Poets and Pancakes)

(i) What does '*fiery misery of those subjected to make-up*' suggest?

A) emotional stress faced by the actors.

B) physical discomfort due to heat and lighting.

C) anger of the make-up artists due to irritation.

D) the discomfort caused by the cramped room.

(ii) Why excessive make-up was considered a cinematic necessity at Gemini Studios during that era?

A) minimised the cost of set design and costumes.

B) was a mandated practice by the studio's creative heads and lead actors.

C) aligned with the theatrical traditions the studio admired.

D) compensated for the lack of advanced lighting and camera technology.

(iii) Why did the make-up room have a look of a hair-cutting salon?

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

The tone of the author in the phrase '*hideous crimson hued monster*' is _____

(v) What does '*became too big for a studio and left*' imply about the Bengali make-up artist?

(vi) **Complete the sentence with a suitable reason :**

The author refers to the presence of people from different regions in the make-up department to _____.

OR

(b) *'Now I am going to tell you, Mr. Ironmaster, how things are', he said. 'The whole world is nothing but a big rattrap. All the good things that are offered to you are nothing but cheese rinds and bits of pork, set out to drag a poor fellow into trouble. And if the sheriff comes now and locks me up for this, then you, Mr. Ironmaster, must remember that a day will come when you yourself may want to get a big piece of pork, and then you will get caught in the trap.*

The ironmaster began to laugh.

'That was not so badly said, my good fellow. Perhaps we should let the sheriff alone on Christmas Eve.'

(The Rattrap)

(i) What does the speaker mean when he says '*The whole world is nothing but a big rattrap*'?

A) The world offers many chances for success and prosperity.

B) Temptations in life are traps that lead people into trouble.

C) Good deeds are always rewarded with cheese rinds.

D) Justice and fairness are not guaranteed for everyone.

(ii) What does the following phrase from the extract showcase:

'Cheese rinds'.

A) temptation

B) affirmation

C) gluttony

D) deprivation

(iii) **Select the correct option from those given in brackets to fill in the blank:**

By calling himself a *'poor fellow'*, the speaker emphasises his _____. (vulnerability / credibility)

(iv) What does the speaker imply through his warning to the ironmaster?

(v) What does the following line from the extract showcase about the ironmaster's nature?

'Perhaps we should let the sheriff alone on Christmas Eve.'

(vi) **Complete the following with a suitable reason:**

In the extract, it is implied that the speaker would be locked up because _____.

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

(i) *''I won't scold you, little Franz; you must feel bad enough.''*

What was it that Franz must be feeling bad about? *(The Last Lesson)*

(ii) Where have the inhabitants of Seemapuri come from? Why

(*Lost Spring*)

(iii) *The misadventure at the YMCA pool by Douglas had far reaching consequences.* Explain.

(iv) *The servants of Rajendra Prasad thought Gandhi was another peasant*. How did they treat Gandhi?

(v) Saul Bellow views interviews as '*thumbprints on the windpipe*'. Comment. (*The Interview*)

(vi) Why does Kamala Das compare her mother's face to '*late winter's moon*'? (*My Mother at Sixty-six*)

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

(i) Why was Charley in '*The Third Level*' keen to buy old currency?

(ii) *The Maharaja, on the third birthday of the crown prince, gave him a special gift.* What was special about the gift? (*The Tiger King*)

(iii) How has man's dominance over nature led to environmental degradation as described in '*Journey to the end of the Earth"*?

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

(a) Analyse the portrayal of the binary of transience and permanence in '*My Mother at Sixty-six*' and '*A Thing of Beauty*'.

OR

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

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

(a) How does Pearl S. Buck explore the theme of humanitarianism versus patriotism in the lesson '*The Enemy*'? Support your answer with evidences from the text.

OR

(b) People with physical impairments deserve acceptance, not sympathy. How does the play *'On the Face of It'* advocate the above philosophy through the characters of Mr. Lamb and Derry?

****

Name:_____ Sec:_____ Roll No:_____

CODE : B

BURNPUR RIVERSIDE SCHOOL, BURNPUR
HALF YEARLY EXAMINATION [2026-2027]
GEOGRAPHY
CLASS: XII

TimeAllowed-3 Hours **Maximum Marks-70**

==========

GENERAL INSTRUCTIONS

1. This question paper contains 30 questions. All questions are compulsory.
2. This question paper is divided into five sections. Sections-A, B, C, D and E.
3. Section A - Question number 1 to 17 are Multiple Choice type questions carrying 1 mark each.
4. Section B- Question number 18 and 19 are Source based questions carrying 3 marks each.
5. Section C- Question number 20 to 23 are Short Answer type questions carrying 3 marks each. Answer to these questions shall be written in 80 to 100 words.
6. Section D Question number 24 to 28 are Long Answer type questions carrying 5 marks each. Answer to these questions shall be written in 120 to 150 words.
7. Section E Question number 29 and 30 are Map based questions carrying 5 marks each.
8. There is no overall choice given in the question paper. However, an internal choice has been provided in a few questions in all sections, except Section A.

SECTION-A
Question numbers 1 to 17 are Multiple Choice Questions

1 **Who defined human geography as, "Human geography is the synthetic study of the relationship between human societies and the earth's surface"?** 1

A. E.C.Semple
B. Ratzel

C. Humboldt
D. Hettner

2 **Two statements are given below. They are Assertion (A) and Reason (R). Read them carefully and choose the correct option.** 1

ASSERTION(A): People prefer to live on flat plains and gentle slopes.
REASON(R): Flat plains are favourable for the production of crops and to build roads and industries.

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.

3 Which country in the world officially proclaim the gross national happiness as the measure of the country's progress? 1

A. USA
B. Bhutan
C. India
D. China

4 In which of the following place slash and burn agriculture is known as **Ladang?** 1

A. North eastern states of India.
B. Central America and Mexico.
C. Indonesia and Malaysia.
D. Sri Lanka.

5 **Arrange the following in chronological order, starting from the earliest. Choose the correct option.** 1

I) Behavioural Geography
II) Areal differentiation
III) Spatial organisation
IV) Regional analysis

Options:
A. I, III, II, IV
B. IV, II, III, I
C. IV, III, II, I
D. II, III, I, IV

6 **Read the following characteristics of 'large scale manufacturing' carefully and choose the most appropriate option:** 1

I. These involves large market and various raw materials.
II. Use of enormous energy and specialised workers are found there.
III. Finished products may be for consumption in the same household or for sale in local market.
IV. Advanced technologies are used.

Options:
A. Only I, II and III are correct.
B. Only I, II and IV are correct.
C. Only I, III and IV are correct.
D. Only II, III and IV are correct.

7 Which one out of the following statement is not true? 1
A. Outsourcing reduces costs and increases efficiency.
B. At times engineering and manufacturing jobs can also be outsourced.
C. BPOs have better knowledge opportunities as compared to KPOs.
D. There may be dissatisfaction among job seekers in the countries that outsource the job.

8 **Consider the following statements and choose the correct answer with the help of the given option.** 1

I. Interaction between primitive human society and strong forces of nature is called environmental determinism.
II. Possibilism is linked to Griffith Taylor.
III. Neo determinism was proposed by Alfred Hettner.
IV. Environmental Determinism emphasises that the physical environment shapes human activities.

Options:

A. Only statement (I) and (III) are correct.
B. Only statement (I) and (IV) are correct
C. Only statement (I), (II) and (IV) are correct
D. Only statement (I) is correct.

9 Which one of the following is an example of basic goods industry? 1
A. Bread and biscuits
B. Iron and steel
C. Soaps
D. Paper for writing

10 Which of the following is NOT the benefit of rainwater harvesting? 1
A. It increases water availability.
B. It checks the declining groundwater table.
C. It improves the quality of ground water through dilution of contaminants like fluoride and nitrates.
D. It increases soil erosion.

11 At which one of the following places was the first atomic power station started? 1
A. Kalpakkam
B. Narora
C. Rana Pratap Sagar
D. Tarapur

12 **Study the table and answer the question that follows.** 1

Table 1.1 : Decadal Growth Rates in India, 1901-2011

Census Years	Total Population	Growth Rate*	
		Absolute Number	% of Growth
1901	238396327	----------	----------
1911	252093390	(+) 13697063	(+) 5.75
1921	251321213	(-) 772117	(-) 0.31
1931	278977238	(+) 27656025	(+) 11.60
1941	318660580	(+) 39683342	(+) 14.22
1951	361088090	(+) 42420485	(+) 13.31
1961	439234771	(+) 77682873	(+) 21.51
1971	548159652	(+) 108924881	(+) 24.80
1981	683329097	(+) 135169445	(+) 24.66
1991	846302688	(+) 162973591	(+) 23.85
2001	1028610328	(+) 182307640	(+) 21.54
2011**	1210193422	(+) 181583094	(+) 17.64

* Decadal growth rate: $g = \frac{P_2 - P_1}{P_1} \times 100$

where P_1 = population of the base year
P_2 = population of the present year

** Source : Census of India, 2011(Provisional)

© NCERT not to be republished

Which decade has shown the negative trend of growth rate of population?

A. 1951-1961
B. 2001-2011
C. 1981-1991
D. 1911-1921

13 **Two statements are given below. They are Assertion (A) and Reason (R). Read them carefully and choose the correct option.** 1

ASSERTION(A): Meghalaya, Uttarakhand and Himachal Pradesh have dispersed type of settlement.

REASON(R): Dispersed settlements are generally found in fertile alluvial plains.

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.

14 **Choose the correctly matched pair from the following:** 1

	Crops	**Leading producer state**
A.	Maize	Punjab
B.	Jute	West Bengal
C.	Groundnut	Ladakh
D.	Sunflower	Uttarakhand

15 **A group of students were conducting research on water pollution level in Delhi Which organization will students need to visit to gather information on water quality?** 1

A. Pollution Control Committee (PCC)
B. Indian Council of Environmental Research (ICER)
C. National Water Development Agency (NWDA)
D. Central Pollution Control Board (CPCB)

16 **Match Column-I with Column-II and choose the correct option** 1

Column-I (Mineral belt)	**Column-II** (Minerals)
I . Northeastern Plateau Belt	i. Copper and Zinc
II. Southwestern Plateau Belt	ii. Iron Ore and coal
III. North Western Belt	iii. Mineral oil
IV. Assam valley	iv. Ferrous minerals

OPTIONS

A. I- i II- iii III- iv IV- ii
B. I-iv II- iii III- ii IV- i
C. I-ii II- iv III- i IV- iii
D. I-iii II- iv III- i IV- ii

17 **Identify the statement(s) that is / are not true with regard to Target Area Planning.** 1

I) Particular attention must be paid to places that have remained economically underdeveloped during the planning phase.
II) Regional imbalances in economic development were getting benefited.
III) It includes well developed areas.
IV) In addition to resources, technology and investment are necessary for the economic progress.

Options:

A. Only statement (I) and (IV) are not true.
B. Only statement (II) is not true.
C. Only statement (III) is not true.
D. Only statement (IV) is not true.

SECTION-B

Question 18 & 19 are Source based questions.

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

High technology, or simply high-tech, is the latest generation of manufacturing activities. It is best understood as the application of intensive research and development (R and D) efforts leading to the manufacture of products of an advanced scientific and engineering character. Professional (white collar) workers make up a large share of the total workforce. These highly skilled specialists greatly outnumber the actual production (blue collar) workers. Robotics on the assembly line, computer -aided design (CAD) and manufacturing, electronic controls of smelting and refining processes, and the constant development of new chemical and pharmaceutical products are notable examples of a high-tech industry. Neatly spaced, low, modern, dispersed, office-plant-lab buildings rather than massive assembly structures, factories and storage areas mark the high-tech industrial landscape. Planned business parks for high-tech start-ups have become part of regional and local development schemes.

i. **What do you mean by high technology industry?** 1

ii. **Give examples of high-tech industries.** 1

iii. **What are Technopolis?** 1

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

The Central and State Governments have initiated many watershed development and management programmes in the country. Some of these are being implemented by nongovernmental organisations also. Haryali is a watershed development project sponsored by the Central Government which aims at enabling the rural population to conserve water for drinking, irrigation, fisheries and afforestation. The Project is being executed by Gram Panchayats with people's participation. Neeru-Meeru (Water and You) programme (in Andhra Pradesh) and Arvary Pani Sansad (in Alwar, Rajasthan) have taken up constructions of various water-harvesting structures such as percolation tanks, dug out ponds (Johad), check dams, etc., through people's participation. Tamil Nadu has made water harvesting

structures in the houses compulsory. No building can be constructed without making structures for water harvesting.

i. What do you mean by watershed management? 1

ii. Name watershed development projects sponsored by Central Government. 1

iii. In which state water harvesting structures in the houses are compulsory? 1

SECTION-C
Question numbers 20 to 23 are Short Answer type questions.

20 Describe the three-staged model of Demographic Transition Theory. 3

OR

What are the components of population change? Explain.

21 Enumerate the challenges confronting society regarding the adolescent population. Enlist a few measures to overcome these problems. 3

22 How the rural settlements are different from urban settlements. 3

23 'Non-conventional sources of energy have their own challenges and opportunities'. Justify the statement. 3

SECTION-D
Question numbers 24 to 28 are Long Answer Type questions.

24 What are the four pillars of Human Development? Explain. 5

25 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? 5

OR

What are the main features of mixed farming? Where are they mainly practised?

26 What are quaternary activities? Explain their characteristics and importance. 5

OR

Describe the importance of tourism as a tertiary activity. What factors influence tourism?

27 Give any three problems faced by the farmers of India. Suggest two ways to solve them. 5

OR

'Indian agriculture underwent an immense change after the independence ? Analyse and elaborate upon this statement.

28 Write about the development plan for the Bharmaur tribal region under the Integrated Tribal Development Project (ITDP), focusing on improving agriculture, education, and livelihood opportunities, considering the region's climatic conditions, socio-economic challenges, and potential for sustainable development. 5

OR

The development of the Indira Gandhi Canal Command area has led to the degradation of the physical environment there. Suggest five measures to promote ecological sustainability in the Indira Gandhi Canal Project.

SECTION-E

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

29 **On the given political map of the world, the following seven features are shown. Identify any five of these features and write their correct names on the lines marked near each feature.** 5

A-An area of commercial livestock rearing
B- An area of extensive commercial grain farming
C- An area of Nomadic herding
D- An area of mixed farming
E- An area of Nomadic herding
F-An area of subsistence gathering
G- An area of extensive commercial grain farming

30 **On the given political map of India, locate and label any five of the following with appropriate symbols:** 5

A. State with highest population density (2011)
B. State with lowest population density (2011)
C. Hazaribagh copper mine
D. Bokaro coal mine
E. Mathura oil refinery
F. Katni bauxite mine
G. Leading producer of rice

****

Name_____Sec: _____ Roll No____

CODE: A

BURNPUR RIVERSIDE SCHOOL, BURNPUR
HALF YEARLY EXAMINATION [2026 -27]
GEOGRAPHY
CLASS-XII

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

==========

General Instructions :

1. There are 30 questions in all. All questions are compulsory.
2. This question paper is divided into five sections .Section A,B,C,D and E
3. Section A: Question numbers **1** to **17** are multiple choice questions(MCQs) carrying **one mark** each. Write only the correct answer in your answer sheets.
4. Section B: Question number 18 and 19 are source based questions carrying three marks each.
5. Section C: Question numbers **20** to **23** are short answer questions carrying 3 marks each. Answers to each of these questions should not exceed 80- 100 words.
6. Question numbers **24** to **28** are long answer questions carrying 5 marks each. Answers to each of these questions should not exceed 150 words each.
7. Question number **29** and **30** are related to identification or locating and labeling of geographical features on maps, carrying 5 marks each.
8. Outline maps of the World and India provided to you must be attached within your answer books.
9. Use of templates or stencils for drawing outline maps is allowed.

==========

SECTION A

1. Which Approach of human geography was followed during the later colonial period? 1
   a. Areal differentiation
   b. Exploration and description
   c. Regional analysis
   d. Spatial organization

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

   Assertion (A)- Population growth occurs not only by increasing birth rate but also due to a decreasing death rate.

   Reason (R)- Death rate plays an active role in population change.

   OPTIONS

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

3. Who among the following developed the concept of human development? 1

   a)Ellen C Semple

   b)Dr Mahbub-ul-Haq

   c)Kanwar Seth

   d)Griffith Taylor

4. Which one of the following features is correct regarding nomadic herding? 1

a) Nomadism is a modern commercial activity.

b) It is practiced on permanent pastures.

c) A wide variety of cattle are reared in different regions.

d) Nomadism is associated with modern technology.

5. Arrange the following concepts related to nature-human interaction in chronological order : 1

I)Concept of Possibilism.

II)Concept of Neo Determinism.

III)Concept of Environmental Determinism.

IV)Concept of Human Development.

OPTIONS:

A. III---I—II—IV
B. I----III---IV---II
C. IV---II---I---III
D. II----I---III---IV

6. Which of the following statements is not a characteristic of an urban marketing centre? 1

a. They provide specialized services.
b. They provide specialized markets.
c. They are organized periodically.
d. They provide ordinary services.

7. Which one out of the following statements is not true? 1

a) Outsourcing reduces costs and increases efficiency.

b) At times engineering and manufacturing jobs can also be outsourced.

c) BPO'S have better business opportunities as compared to KPO'S.

d) They may be dissatisfaction among job seekers in the countries that outsource the job.

8. Consider the following statements and choose the correct answer with the help of the given options: 1

Statement I: The availability of resources is not the only necessary condition for the development of any region.

Statement II: Not only availability of resources but also corresponding change in technology is necessary for development of any region.

OPTIONS:

a) Only statement I is correct.

b) Only statement II is correct.

c) Both the statements are correct and statement II correctly explains statement I.

D) Both the statements are true but not related with each other.

9. Neeru Meeru Watershed Management Program is associated with which of the following states? 1

a) Rajasthan b) Tamil Nadu

c) Andhra Pradesh d) Karnataka.

10. The north eastern Plateau region consists of which of the following minerals? 1

1. Iron ore
2. Zinc
3. Granite
4. Coal

Codes:

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

11. Consider the following and choose the correct answer with the help of the given codes : 1

STAGES OF PRODUCTION	GROWTH FEATURES
A) Period between 1901 to 1921	1. Period of steady growth
B) Period between 1921 to 1951	2. Phase of stagnant growth
C) Period between 1951 to 1981	3. High but decreasing growth rate.
D) After 1981 till present	4. Period of population explosion.

CODES:

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

12. Which one of the following types of industries produces raw material for other industries? 1

a) cottage industries
b) small scale industries
c) basic industries
d) footloose industries

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

Assertion (A)- Total urban population has increased eleven fold during the 20^{th} century.

Reason (R)- Enlargement of urban centers and emergence of new towns have played a significant role in the growth of the urban population**.**

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 but (R) is false

d) (A) is false but R is true.

14. Which of the following facts about jute cultivation in India is true? 1

a) West Bengal is the leading producer of Jute.

b) Jute is a cash crop for Punjab in Haryana.

c) Madhya Pradesh and Maharashtra other leading jute producing states.

d) India produces about 30% of the jute production of the world.

15. Which of the following is not the benefit of rainwater harvesting ?

a)It increases water availability . 1

b) It checks the declining ground water table.

c) It improves the quality of groundwater through dilution of contaminants like fluoride and nitrates.

d) Helpful in production of hydroelectricity.

16. **Match the following**: 1

RESOURCES	EXAMPLES
A. Renewable Resources	1.Forest and wildlife
B. Non-Renewable Resources	2.The oceanic resources
C. National Resources	3. Roads, canals and railways
D. International Resources	4.Minerals and fossil fuels.

CODES:

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

17. Which one of the following is not true about the Bharmaur tribal region? 1

a)This region comprises of Bharmaur and Holi tehsil of Chamba district.

b) It is not a notified tribal area.

c) It is mainly inhabited by the Gaddi tribal community.

d) The tribals practice transhumance.

SECTION B 3

18. Read the following passage carefully and answer the questions that follow:

High technology or simply high -tech is the latest generation of manufacturing activities.It is best understood as the application of intensive research and development(R and D) efforts leading to the manufacture of products of an advanced scientific and engineering character. Professional (white collar) workers make up a large share of the total work force. These highly skilled specialists greatly outnumber the actual production(blue collar) workers. Robotics on the assembly line, computer aided design (CAD) and manufacturing electronic controls of smelting and refining processes and the

constant development of new chemical and pharmaceutical products are notable examples of a high tech industry. Neatly spaced, low, modern ,dispersed, office- plant -lab buildings rather than massive assembly structures, factories and storage areas mark the high-tech industrial landscape. Planned business parks for high-tech start-ups have become part of regional and local development schemes. High-tech industries which are originally concentrated self-sustained and highly specialized are called Technopolis.

Q1) Which of the following jobs is called white collar job?

a)A class of employees who are known for earning higher average salaries and doing highly skilled work.

b) A class of employees who do not perform manual labor at their jobs.

c) A job where suit and tie workers work at a desk and stereotypically eschew physical labour.

d) All of the above.

Q2) Which of the following products is not a notable example of a high tech industry?

a) Office plant lab buildings.

b) Massive assembly structures.

c) Consumer goods industry.

d) Factories and storage areas.

Q3) Which of the following are examples of Technopolis?

a) Silicon Valley, San Francisco.
b) Silicon Forest, Seattle.
c) Silicon Valley, Bengaluru.
d) All of the above.

19 Read the given passage carefully and answer the questions that follow: 3

The total replenishable groundwater resources in the country are about 432 cubic kilometers. The level of groundwater utilization is relatively high in the river basins lying in northwestern region and parts of South India. The ground water utilization is very high in the states of Punjab, Haryana, Rajasthan and Tamil Nadu. However, there are states like Chhattisgarh, Orissa, Kerala, etc., which utilize only a small proportion of their groundwater potentials. States like Gujarat, Uttar Pradesh, Bihar, Tripura and Maharashtra are utilizing their groundwater resources at a moderate rate. If the present trend continues, the demands for water would exceed the supplies. And such a situation, will be detrimental to development and can cause social upheaval and disruptions.

Q1) The total replenishable groundwater resources in the country are about _____cubic km.

a) 433 b)431 c)432 d)430

Q2) The level of groundwater utilization is relatively high in the_____ lying in northwestern region and parts of South India.

a) River basins b) valleys c) mountains d) All of these.

Q3) The groundwater utilization is very high in the states of:

a) Tamil Nadu b) Punjab c) Rajasthan and Haryana d) All of these.

20 "If development is not engendered it is endangered ."Examine the statement in the context of inclusive development? 3

21. Explain the causes of rapid positive growth of population in India from 1951 to 1981? 3

22. Explain any three features of clustered rural settlement of India? 3

23 "Copper is an indispensable metal in the electrical industry." Examine the statement. 3

SECTION C 5

24 Describe 'Capability' and 'Basic Needs' approach to Human Development?

25 Explain the basic characteristics of pastoral nomadism and the locations where it occurs . 5

OR

Explain the main difference between surface and underground mining ? Why is opencast mining the easiest way of mining? Why is shaft mining more risky?

26 How has tourism become the single largest tertiary activity in the world explain? What is medical tourism? 5

OR

Explain the main features of retail trading and wholesale trading in the world.

27 Explain any five major problems of Indian agriculture? 5

OR

Explain three characteristics each of wetland farming and dry land farming in India.

28 Bharmaur tribal region has harsh climatic conditions a low resource base . 5

How did the Integrated Tribal Development Project help in the development of the region.

OR

The notion of sustainable development emerged in the wake of general rise in the awareness of environmental issues in the late 1960s in the Western world .Describe the impact of this concept.

29 On the given political map of the world, the following seven geographical features are seen, identify any five of those features and write the correct names on the line marked near each feature. 5

(a) A major area of commercial livestock rearing
(b) An area of subsistence gathering.
(c) An area of nomadic herding.
(d) An area of commercial livestock rearing
(e) An area of mixed farming.
(f) An area of subsistence gathering.
(g) An area of extensive commercial grain farming.

30 On the given political map of India locate and label any five of the following with appropriate symbols: 5

(a) The state with the highest density of population.
(b) The state leading in production of coffee.
(c) An oil refinery in Gujarat.
(d) Copper mine located in Rajasthan.
(e) The state with the lowest density of population.
(f) Coal mines in West Bengal.
(h)The leading state in the production of sugarcane.

****

Name:_____ Sec:_____ Roll No:___

CODE : A

BURNPUR RIVERSIDE SCHOOL, BURNPUR
HALF YEARLY EXAMINATION-2026
SESSION: 2026-2027
CLASS XII
SUBJECT: PHYSICS (042)

TIME: 3Hours **F.M: 70**

Instructions:

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

SECTION: A

Q1. Which of the following statement is correct. Electric field due to static charges is: 1

(a)Conservative and field lines do not form closed loops.
(b)Conservative and field lines form closed loops.
(c)non-conservative and field lines do not form closed loops.
(d)non-conservative and field lines form closed loops.

Q2. The electric field due to an infinitely long straight uniformly and positively charged wire at a point at a distance r from wire is. 1

(a) Proportional to 1/r and directed outward.
(b) Proportional to $1/r^2$ and directed outward.
(c) Proportional to 1/r and directed inward.
(d) Proportional to $1/r^2$ and directed inward.

Q3. A point P lies at a distance x from the mid-point of an electric dipole on its axis. The electric potential at point P is proportional to? (given distance x very large as compared to length of dipole) 1

(a)$1/x^2$ **(b)$1/x^3$** **(c)1/x** **(d)$1/\sqrt{x}$**

Q4. Two particles A and B of same mass but having charges q and 4q respectively are accelerated through different potential V_A and V_B such that they attain same kinetic energy. Then value of $V_A:V_B$ is: 1

(a)1/4 (b)1/2 (c)2 (d)4

Q5. Two wires of same length and same area of cross section but made of different material of resistivities ρ_1 and ρ_2 are connected in series. The equivalent resistivity of combination is: 1

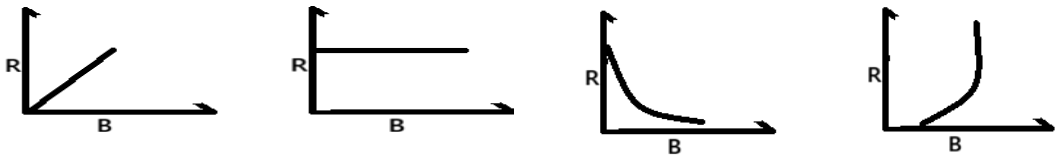
(a) $(\rho_1+\rho_2)/2$ (b)$(\rho_1+\rho_2)$ (c)$\sqrt{(\rho_1\rho_2)}$ (d)None of these

Q6. A proton and an alpha particle enter with same velocity v in a uniform magnetic field B such that B is perpendicular to v. The ratio of radius of their path **($R_{proton}:R_{alpha}$)** is: 1

(a)$\sqrt{2}$ (b)1/2 (c)1/4 (d)4

Q7. A charged particle is moving in a uniform magnetic field B with constant speed V in a circular path of radius R. Which of the following graph represents the variation of radius of circle with magnitude of magnetic field B 1

a. b. c. d.



Q8. Which of the following material has positive and small value of magnetic susceptibility. 1

(a)Fe (b)Al (c)Bi (d)Ni

Q9. If the magnetising field in a ferromagnetic material is increased, then its permeability 1

(a)Decreases (b)Increases
(c)remains unchanged (d) First decreases then increases.

Q10. A square shaped coil of side 10cm having 100 turns is placed perpendicular to a magnetic field which is increasing at a rate of 1T/sec. The induced emf in the coil will be: 1

(a)1V (b)0.5V (c)0.75V (d)None of these

Q11. A capacitor has a reactance of X. If the capacitance and frequency are doubled then new capacitance will be: 1

(a)4X (b)2X (c)X/2 (d)X/4

Q12. In a purely capacitive AC circuit, the current: 1

(a)Lags the voltage by $\pi/2$

(b)Remains in same phase as voltage

(c) Leads the voltage by $\pi/2$

(d)None of these.

Reasoning Assertion type.

Instruction for question no 13 to 16.

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

(a) Assertion is correct, reason is correct; reason is a correct explanation for assertion.

(b) Assertion is correct, reason is correct; reason is not a correct explanation for assertion

(c) Assertion is correct; reason is incorrect

(d) If both Assertion and reason is false

Q13. **ASSERTION:** A negative charge in an electric field moves along direction of electric field. 1

REASON: On a negative charge force acts in opposite to the direction of electrical field.

Q14. **ASSERTION:** If a dipole is enclosed in a Gaussian surface, then according to Gauss law electric flux linked with it will be zero. 1

REASON: Charge enclosed in the Gaussian surface is zero.

Q15. **ASSERTION:** Magnetic field does not interact with moving charges. 1

REASON: A moving charge does not produce any magnetic field.

Q16. **ASSERTION:** When a ferromagnetic substance is heated to high temperature it becomes paramagnetic in nature. 1

REASON: The disappearance of magnetisation of ferromagnet is abrupt and not gradual.

.

SECTION: B

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

Q18. Draw equipotential surfaces for (i) An electric dipole (ii) Two identical positive charges placed near each other. 2

Q19. Show that $E=\rho j$ leads to ohms law. Where ρ is resistivity, and j is current density. 2

OR

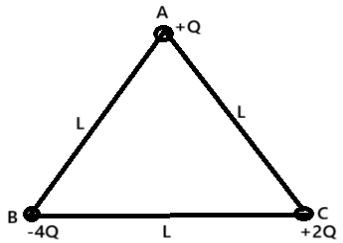
Two wires of same material have same length but different Cross section A_1 and A_2. They are connected together to a cell of voltage V, Find the ratio of their drift velocity if they are connected in series.

Q20. A galvanometer of resistance 1000 Ohm can measure up to 25V. How can you convert it so that it can measure up to 250 Volts? 2

Q21. An alternating voltage is given by equation $V=V_o \sin\omega t$. Derive its average value. 2

SECTION:C

Q22. 3

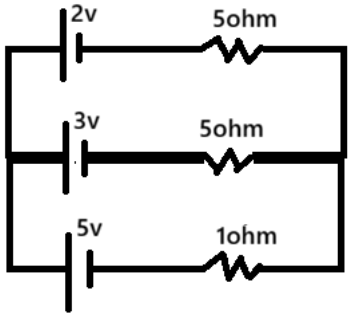


(a)Three-point charges are placed at the vertices of an equilateral triangle ABC of side length L as shown in the figure. Find the magnitude of net force acting on charge placed at A. Charge placed at A, B and C are +Q, -4Q and +2Q respectively.
(b)Why cannot electric field lines exist tangential to equipotential surface?

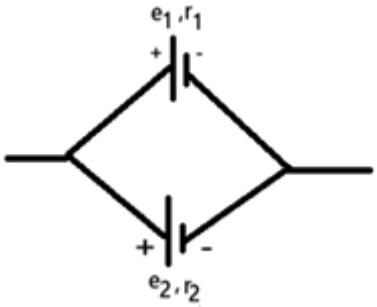
Q23. A parallel plate capacitor of capacitance C has dielectric slab between its plates. It is charged to a potential V by connecting it to a battery. The battery is then disconnected. If the dielectric slab is now withdrawn from the capacitor. How will the following be affected? 3

(a) Capacitance of the capacitor
(b) Potential difference between the plates of the capacitor
(c) Energy stored in the capacitor.

Justify your answer in each case.(Take dielectric constant as K)

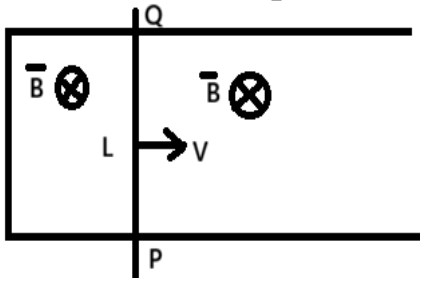
Q24. 

Find current through each resistance using Kirchoff's law for the circuit shown. 3

Q25. Two cells of emf E_1 and E_2 and internal resistance r_1 and r_2 are connected in parallel as shown in the figure. Then deduce the expression for equivalent emf and equivalent internal resistance for the configuration 

3

Q26 Apply Biot-Savart's law to find magnetic field due to circular current carrying coil at a point on the axis of the loop. Current flowing in loop is I, radius of loop is R and distance of the point on the axis of loop from the centre is X. 3

Q27 

Derive the emf generated across the length of the rod L. Which end will be positive. How much force has to be applied to drive the rod with constant velocity V in positive X direction. Contant magnetic field is inside the plane of the paper. 3

Q28 Prove that in a capacitor current lead from voltage by phase angle of $\pi/2$ when connected across an AC source. Also draw the graph of capacitive reactance Vs frequency of AC applied. 3

SECTION:D

Q29 **Electric lines of force start from positive charges and terminate in negative charge. Positive charges tend to move in direction of electrical field but negative charges tend to move opposite to the direction of electrical field.** 4

***Choose the correct option and each question carries one mark*:**

(a) An isolated point charge particle produces electric field E at 3m away from it. The distance of the point at which electric field is E/4 is given by:

(i)6m (ii)3m (iii) 4m (iv)2m

(b) An object has a charge of 1C and gains $5x10^{18}$ electrons. Then net charge on the object becomes:

(i) +0.2C (ii) +0.8C (iii)1.8C (iv) -0.8C

(c) Voltage of clouds is $4\ x10^{6}$ volt with respect to ground. In a lightning strike lasting for 0.1 second a charge of 4C is delivered to the ground. The power of the lightning strike is:

(i) 160MW (ii)80MW (iii)20MW (iv)500MW

(d) A spherical drop of capacitance one microfarad is broken into eight drops of equal radius then the capacitance of each small drop will be

(i)1/2μF (ii)1/4μF (iii) 1/8μF (iv)8μF

Q30 **Moving charges experiences force placed in magnetic field. Current carrying wire also placed in magnetic field experiences force. Magnetic field cannot do work on moving charges; it can only change the direction**.

***Choose the correct option and each question carries one mark*:**

(a)A straight wire is lying on Y-axis and carrying current along negative Y axis. Then magnetic field at (50,0,0) will be directed along:

(i)+Z-axis (ii) -Z-axis (iii) +Y-axis (iv)none of these

(b)A straight wire is kept horizontal along East-West direction carrying current from East to West direction. The magnetic field at point above the wire will point towards.

(i)North (ii)West (iii)East (iv)South

(c)A charged particle of mass m having kinetic energy K passes **undeflected** through a region with Electric field E and magnetic field B acting perpendicular to each other. The mass of the particle will be:

(i)$2KB^2/E^2$ (ii) KB^2/E^2 (iii) $2KE^2/B^2$ (iv) $KE^2/2B^2$

(d)An electron enters a uniform magnetic field with a speed of V. It describes a semicircle and comes out of the field. The final speed of the particle will be.

. **(i)zero (ii)v (iii)v/2 (iv)v/4**

SECTION: E

Answer either a and b or c and d

Q31. (a) Derive the expression of electric field due to infinite line charge at a perpendicular distance of r from it. Charge per unit length is λ. 5

(b) Derive the expression of capacitance of a parallel plate air capacitor. Write the expression of energy stored per unit volume inside electric field.

OR

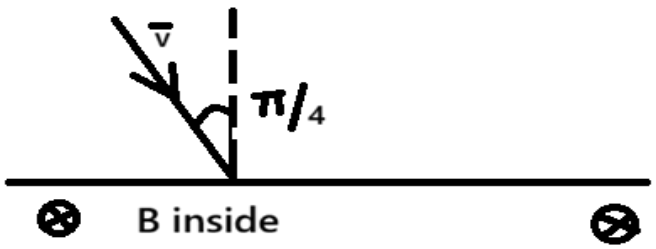
(c)A parallel plate capacitor with plate separation 5mm is charged by battery. It is found that on introducing a mica sheet 2mm thick; while keeping the battery connected, the capacitor draws 25% more energy from battery than before. Find the dielectric constant of mica.

(d)When two charged conductors of different capacitance and different potentials are joined together, show that there is always a loss of energy.

Q32. (a)Current I is flowing through a thick wire having cross section of radius a. Derive the expression of magnetic field at a point which is at a distance of r from the axis such that (i)r<a (ii)r>a 5

(b)A particle of mass m and charge +q enters a magnetic field B perpendicular to it. Write the expression of radius and time period of rotation.

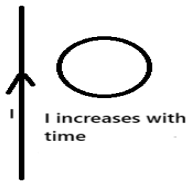
OR



(c)A particle of mass m having positive charge q moving with uniform velocity v as shown in the above enters a magnetic field B. Find the (i)radius of the circular path, (ii) the angle it will subtend at the centre, (iii)how long does the particle stay inside the magnetic field?

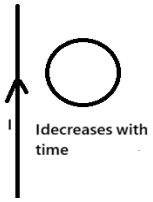
(d) Trace the path of the particle.

Q33. (a)A sinusoidal emf is applied across an inductor only. Show that current lags behind the emf by phase angle of $\pi/2$.
(b) A long wire carries a current which increases with time. Find the direction in which current will rotate in circular coil.



OR

(c)A 20volt AC applied to a circuit of resistance R and an inductor coil with negligible internal resistance. If the voltage across the resistance is 12Volt. Then draw the phasor diagram and find the voltage across inductor coil. Draw variation of inductive reactance with frequency of AC connected to it.
(d) A long wire carries a current which decreases with time. Find the direction in which current will rotate in the coil.



.

****

Name:_____ Sec:_____ Roll No:_____

CODE-B

BURNPUR RIVERSIDE SCHOOL, BURNPUR
HALF YEARLY EXAMINATION-2026
SESSION: 2026-2027
CLASS XII
SUBJECT: PHYSICS (042)

TIME: 3Hours **F.M: 70**

==========

Instructions:

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

SECTION: A

Q1. Which of the following statement is correct. Electric field due to static charges is: 1

(a)Conservative and field lines do not form closed loops.
(b)Conservative and field lines form closed loops.
(c)non-conservative and field lines do not form closed loops.
(d)non-conservative and field lines form closed loops.

Q2. The electric field due to an infinitely long straight uniformly and positively charged wire at a point at a distance r from wire is. 1

(a) Proportional to 1/r and directed outward.
(b) Proportional to $1/r^2$ and directed outward.
(c) Proportional to 1/r and directed inward.
(d) Proportional to $1/r^2$ and directed inward.

Q3. A point P lies at a distance x from the mid-point of an electric dipole on its axis. The electric potential at point P is proportional to? (given distance x very large as compared to length of dipole) 1

(a)$1/x^2$ (b)$1/x^3$ (c)1/x (d)$1/\sqrt{x}$

Q4. Two particles A and B of same mass but having charges q and 4q respectively are accelerated through different potential V_A and V_B such that they attain same kinetic energy. Then value of $V_A:V_B$ is: 1

(a)1/4 (b)1/2 (c)2 (d)4

Q5. Two wires of same length and same area of cross section but made of different material of resistivities ρ_1 and ρ_2 are connected in series. The equivalent resistivity of combination is: 1

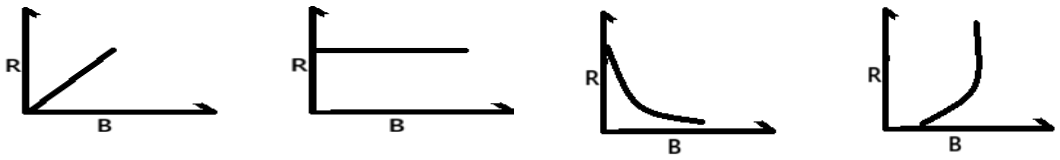
(a) $(\rho_1+\rho_2)/2$ (b)$(\rho_1+\rho_2)$ (c)$\sqrt{(\rho_1\rho_2)}$ (d)None of these

Q6. A proton and an alpha particle enter with same velocity v in a uniform magnetic field B such that B is perpendicular to v. The ratio of radius of their path is **($R_{proton}:R_{alpha}$)**: 1

(a)$\sqrt{2}$ (b)1/2 (c)1/4 (d)4

Q7. A charged particle is moving in a uniform magnetic field B with constant speed V in a circular path of radius R.Which of the following graph represents the variation of radius of circle with magnitude of magnetic field B 1

a. b. c. d.



Q8. Which of the following material has positive and small value of magnetic susceptibility. 1

(a)Fe (b)Al (c)Bi (d)Ni

Q9. If the magnetising field in a ferromagnetic material is increased, then its permeability 1

(a)Decreases (b)Increases
(c)remains unchanged (d) First decreases then increases.

Q10. A square shaped coil of side 10cm having 100 turns is placed perpendicular to a magnetic field which is increasing at a rate of 1T/sec. The induced emf in the coil will be: 1

(a)1V (b)0.5V (c)0.75V (d)None of these

Q11. A capacitor has a reactance of X. If the capacitance and frequency are doubled then new capacitance will be: 1

(a)4X (b)2X (c)X/2 (d)X/4

Q12. In a purely capacitive AC circuit, the current: 1

(a)Lags the voltage by $\pi/2$

(b)Remains in same phase as voltage

(c) Leads the voltage by $\pi/2$

(d)None of these.

Reasoning Assertion type.

Instruction for question no 13 to 16.

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

(a) Assertion is correct, reason is correct; reason is a correct explanation for assertion.

(b) Assertion is correct, reason is correct; reason is not a correct explanation for assertion

(c) Assertion is correct; reason is incorrect

(d) If both Assertion and reason is false

Q13. **ASSERTION:** A negative charge in an electric field moves along direction of electric field. 1

REASON: On a negative charge force acts in opposite to the direction of electrical field.

Q14. **ASSERTION:** If a dipole is enclosed in a Gaussian surface, then according to Gauss law electric flux linked with it will be zero. 1

REASON: Charge enclosed in the Gaussian surface is zero.

Q15. **ASSERTION:** Magnetic field does not interact with moving charges. 1

REASON: A moving charge does not produce any magnetic field.

Q16. **ASSERTION:** When a ferromagnetic substance is heated to high temperature it becomes paramagnetic in nature. 1

REASON: The disappearance of magnetisation of ferromagnet is abrupt and not gradual.

.

SECTION: B

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

Q18. Draw equipotential surfaces for (i) An electric dipole (ii) Two identical positive charges placed near each other. 2

Q19. Derive the vector form of Ohms law. 2

OR

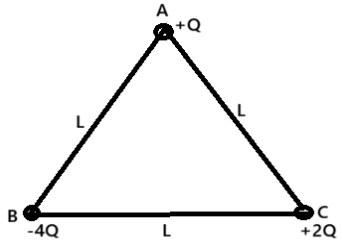
Two wires of same material have same length but different Cross section A_1 and A_2. They are connected together to a cell of voltage V, Find the ratio of their drift velocity if they are connected in series.

Q20. A galvanometer of resistance 1000 Ohm can measure up to 25V. How can you convert it so that it can measure up to 250 Volts? 2

Q21. An alternating voltage is given by equation $V=V_o \, Sin\omega t$. Derive its RMS value. 2

SECTION:C

Q22. 3



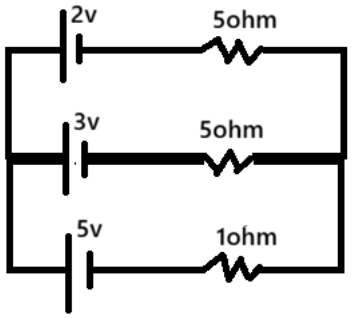
(a)Three-point charges are placed at the vertices of an equilateral triangle ABC of side length L as shown in the figure. Find the magnitude of net force acting on charge placed at A. Charge placed at A, B and C are +Q, -4Q and +2Q respectively.
(b)Why cannot electric field lines exist tangential to equipotential surface?

Q23. A parallel plate capacitor of capacitance C has dielectric slab between its plates. It is charged to a potential V by connecting it to a battery. The battery is then disconnected. If the dielectric slab is now withdrawn from the capacitor. How will the following be affected? 3

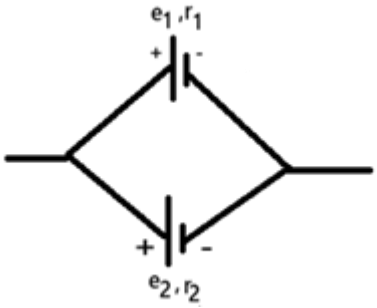
(a) Capacitance of the capacitor
(b) Potential difference between the plates of the capacitor

(c) Energy stored in the capacitor.

Justify your answer in each case. (Take dielectric constant as K)

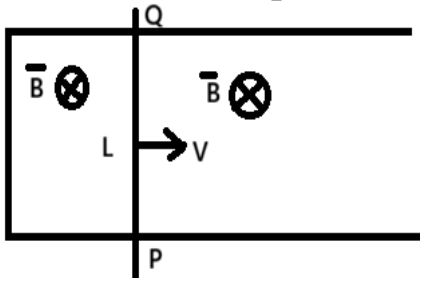
Q24. 

Find current through each resistance using Kirchoff's law for the circuit shown. 3

Q25. Two cells of emf E_1 and E_2 and internal resistance r_1 and r_2 are connected in parallel as shown in the figure. Then deduce the expression for equivalent emf and equivalent internal resistance for the configuration 

3

Q26 Apply Biot-Savart's law to find magnetic field due to circular current carrying coil at a point on the axis of the loop. Current flowing in loop is I, radius of loop is R and distance of the point on the axis of loop from the centre is X. 3

Q27 

Derive the emf generated across the length of the rod L. Which end will be positive. How much force has to be applied to drive the rod with constant velocity V in positive X direction. Contant magnetic field is inside the plane of the paper. 3

Q28 Prove that in a capacitor current lead from voltage by phase angle of $\pi/2$ when connected across an AC source. Also draw the graph of capacitive reactance Vs frequency of AC applied. 3

SECTION:D

Q29 **Electric lines of force start from positive charges and terminate in negative charge. Positive charges tend to move in direction of electrical field but negative charges tend to move opposite to the direction of electrical field.** 4

***Choose the correct option and each question carries one mark*:**

(a) An isolated point charge particle produces electric field E at 3m away from it. The distance of the point at which electric field is E/4 is given by:

(i)6m (ii)3m (iii) 4m (iv)2m

(b) An object has a charge of 1C and gains $5x10^{18}$ electrons. Then net charge on the object becomes:

(i) +0.2C (ii) +0.8C (iii)1.8C (iv) -0.8C

(c) Voltage of clouds is $4\ x10^6$ volt with respect to ground. In a lightning strike lasting for 0.1 second a charge of 4C is delivered to the ground. The power of the lightning strike is:

(i) 160MW (ii)80MW (iii)20MW (iv)500MW

(d) A spherical drop of capacitance one microfarad is broken into eight drops of equal radius then the capacitance of each small drop will be

(i)1/2μF (ii)1/4μF (iii) 1/8μF (iv)8μF

Q30 **Moving charges experiences force placed in magnetic field. Current carrying wire also placed in magnetic field experiences force. Magnetic field cannot do work on moving charges; it can only change the direction**.

***Choose the correct option and each question carries one mark*:**

(a)A straight wire is lying on Y-axis and carrying current along negative Y axis. Then magnetic field at (50,0,0) will be directed along:

(i)+Z-axis (ii) -Z-axis (iii) +Y-axis (iv)none of these

(b)A straight wire is kept horizontal along East-West direction carrying current from East to West direction. The magnetic field at point above the wire will point towards.

(i)North (ii)West (iii)East (iv)South

(c)A charged particle of mass m having kinetic energy K passes **undeflected** through a region with Electric field E and magnetic field B acting perpendicular to each other. The mass of the particle will be:

(i)$2KB^2/E^2$ (ii) KB^2/E^2 (iii) $2KE^2/B^2$ (iv) $KE^2/2B^2$

(d)An electron enters a uniform magnetic field with a speed of V. It describes a semicircle and comes out of the field. The final speed of the particle will be.

.

(i)zero (ii)v (iii)v/2 (iv)v/4

SECTION: E

Answer either a and b or c and d

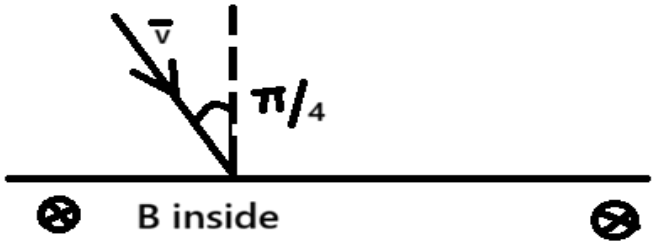
Q31. (a) Derive the expression of field due to infinite line charge at a perpendicular distance of r from it. Charge per unit length is λ. 5
(b) Derive the expression of capacitance of a parallel plate dielectric filled capacitor. Write the expression of energy stored per unit volume inside electric field.

OR

(c)A parallel plate capacitor with plate separation 5mm is charged by battery. It is found that on introducing a mica sheet 2mm thick; while keeping the battery connected, the capacitor draws 25% more energy from battery than before. Find the dielectric constant of mica.
(d)When two charged conductors of different capacitance and different potentials are joined together, show that there is always a loss of energy.

Q32. (a)Current I is flowing through a thick wire cross section having radius a. Derive the expression of magnetic field at a point which is at a distance of r from the axis such that (i)r<a (ii)r>a 5
(b)A particle of mass m and charge +q enters a magnetic field B perpendicular to it. Write the expression of radius and time period of rotation.

OR



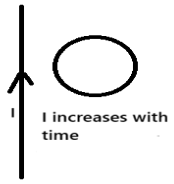
(c)A particle of mass m having positive charge q moving with uniform velocity v as shown in the above enters a magnetic field B. Find the (i)radius of the circular path, (ii) the angle it will

subtend at the centre, (iii)how long does the particle stay inside the magnetic field?

(d) Trace the path of the particle.

Q33. (a)A sinusoidal emf is applied across an inductor only. Show that current lags behind the emf by phase angle of $\pi/2$.

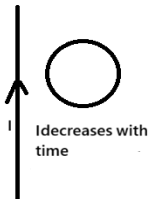
(b) A long wire carries a current which increases with time. Find the direction in which current will rotate in circular coil.



OR

(c) When an inductor L and a resistance R are connected in Series across a 12V battery, 50 hz ac supply, a current of 0.5 Amp flows through it. The phase angle between applied voltage and current is $\pi/3$.Find Impedance, power factor and resistance.

(d) A long wire carries a current which decreases with time. Find the direction in which current will rotate in the coil.



****

Name: _____ Sec: ____ Roll No.: ____

CODE: A

BURNPUR RIVERSIDE SCHOOL, BURNPUR
HALF YEARLY EXAMINATION: [2026-2027]
INFORMATION TECHNOLOGY (802)
CLASS – XII

Time: 3 Hrs. **Maximum Marks: 60**

==========

General Instructions:

1. *Please read the instructions carefully.*
2. *This Question Paper consists of **17 questions** in two sections – Section A & Section B.*
3. *Section A has Objective type questions whereas Section B contains Subjective type questions.*
4. ***A candidate has to answer all the 17 questions in the allotted (maximum) time of 3 hours.***
5. *All questions of a particular section must be attempted in the correct order.*
6. ***SECTION A - OBJECTIVE TYPE QUESTIONS (30 MARKS):***
   - ***i.*** *This section has 06 questions.*
   - ***ii.*** *There is no negative marking.*
   - ***iii.*** *Do as per the instructions given.*
   - ***iv.*** *Marks allotted are mentioned against each question/part.*
7. ***SECTION-B: SUBJECTIVE TYPE QUESTIONS(30 MARKS):***
   - ***i.*** *This section contains 11 questions.*
   - ***ii.*** *A candidate has to do all the 11 questions.*
   - ***iii.*** *Do as per the instructions given.*
   - ***iv.*** *Marks allotted are mentioned against each question/part.*

==========

SECTION-A

OBJECTIVE TYPE QUESTIONS

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

i. What do you understand by 'Range of Cells'? 1

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. A ____ joins words, phrases, or clauses. 1
a. conjunction b. adjective c. noun d. none

iv. State whether the following statement is **True** or **False**: 1
"A SMART goal must be time-bound wherein it has a start and finish date."

2. **Answer the following 5 questions**

(1 x 5 = 5 marks)

i. NeGP was formulated in ____. 1
a. 2004 b. 2005 c. 2006 d. none

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

iii. Name the domain where database applications may be used for storing details of electoral roll, all types of taxes, criminal records. 1
a. E-Commerce b. Government Sector
c. Private Sector d. none

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

v. What is the use of WHERE clause in SELECT statement? 1

3. **Answer the following 6 questions**

(1 x 6 = 6 marks)

i. In order to restrict the values of an attribute within a range, which constraint may be used? 1

ii. Which key is used to represent the relationship between two tables? 1

iii. "We can use 'LIKE' keyword along with two more reserved characters". Name the two reserved characters. 1

iv. Name the domain where database applications may be used for storing information regarding communication networks, customers, call records, and their bills. 1

a. E-Commerce b. Government Sector
c. Telecommunications d. none

v. Which of the following is a client-side scripts? 1

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

vi. Fill in the blank: 1

CET stands for ____.

4. **Answer the following 5 questions**

(1 x 5 = 5 marks)

i. Name the domain where database applications may be used for storing information such as student details, marks and result. 1

a. Education b. Hospitals c. E-commerce d. none

ii. What does MOOCs stands for? 1

iii. Shalini wants to input the price of shoes as 999.99 . What should be the datatype and size of the column price in the table? 1

iv. Which command is used to create a new table or relation? 1

v. An application that can be accessed over a computer network or internet through a web browser is called a ____. 1

a. web-based application b. report application
c. server-based application d. none

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

i.	Expand DEITY.	1
ii.	Name the domain where database applications may be used for storing information about customers' information regarding daily transactions.	1
iii.	DBA stands for ____. a. Database Broadband Administrator b. Database Administrator c. Database Anchor d. Data Broadband Administrator	1
iv.	What is the use of Alias name to columns?	1
v.	If a user has not entered a value for an attribute, then which value that is specified while creating the table is used?	1

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

i.	Expand NSP.	1
ii.	Write down the Indian e-governance portal.	1
iii.	Name the domain where database applications may be used for storing information regarding employees such as name, address, contact number, salary, position, joining date. a. Airlines b. Companies c. Hotels d. none	1
iv.	Which command is used to cancel previously granted or denied permissions?	1
v.	Expand RDBMS.	1

SECTION-B: SUBJECTIVE TYPE QUESTIONS

Answer the following 3 questions on
Employability Skills (2 x 3 = 6 marks)

7.	Who are Technical Entrepreneurs? Technical Entrepreneurs are also known as what?	2
8.	What is Sorting? Name the two ways in which sorting can be done in Calc.	2
9.	What do you understand by internal motivation? Give an example to support your answer.	2

Answer the following 3 questions (2 x 3 = 6 marks)

10. The following commands are giving errors. Write the correct MYSQL commands. 2

(a) SELECT MINIMUM(MARKS) FROM STUDENT;

(b) SELECT * FROM ITEM
WHERE COSTPRICE > 5000
ORDER BY ITEMNAME ASCENDING;

11. The services of the e-governance portal can be broadly classified into two categories. Name them. 2

12. What is Work Integrated Learning (WIL)? 2

Answer the following 2 questions (3 x 2 = 6 marks)

13. Consider a MySQL table named as 'TEACHER' with the following fields: TID, TNAME, TSALARY, TADDRESS. Write down SQL queries for the following: 3

i) Display the maximum salary with column name as MAXSAL.

ii) Display the total number of teachers with column name as TOTALTEACHERS.

iii) Display teacher ID number and name of those teachers whose salary is more than 100000.

14. Discuss any three main purposes of using Database applications in banking domain. 3

Answer the following 3 questions (4 x 3 = 12 marks)

15. Write SQL commands for the following on the basis of given table BOOKS table from (a) to (d) 4

BOOKS

B_ID	B_Name	Author	Price	Publishing_Year
1024	Amazing World	A. Mathur	1600	1987
2014	Today's Science	T. Sharma	1500	1988
3025	Spiritual Look	T. Roy	2000	2000
1125	Peace Of Mind	N. Singh	2500	1998
5026	Birds With No Wings	A. Sen	1200	1996

(a) To display the details of the books in ascending order of their price.

(b) To display The Price of all books where each book price has been increased by 100.

(c) To display The book names have been published after the year 1999.

(d) To enter a new record in the table with the following details: (9002, “Simple Life”, “C. Das”, 800, “1995”);

16. Name the built-in aggregate functions used for the following tasks given below. Also, write an SQL query, with respect to the tasks given below, for each as an example to support your answer. 4

a) To find out the total marks of five subjects.
b) To find out the maximum marks out of the five subjects.
c) To find out the minimum marks out of the five subjects.
d) To count the number of subjects having marks more than 60.

17. What do you understand by Online Reservation System? How online reservation / booking system is advantageous for the providers? *(Give three valid points)* 4

==========

Name: _____ Sec: ____ Roll No.: ____

CODE: B

BURNPUR RIVERSIDE SCHOOL, BURNPUR
HALF YEARLY EXAMINATION: [2025-2026]
INFORMATION TECHNOLOGY (802)
CLASS – XII

Time: 3 Hrs. **Maximum Marks: 60**

==========

General Instructions:

1. *Please read the instructions carefully.*
2. *This Question Paper consists of **17 questions** in two sections – Section A & Section B.*
3. *Section A has Objective type questions whereas Section B contains Subjective type questions.*
4. ***A candidate has to answer all the 17 questions in the allotted (maximum) time of 3 hours.***
5. *All questions of a particular section must be attempted in the correct order.*
6. ***SECTION A - OBJECTIVE TYPE QUESTIONS (30 MARKS):***
   - ***i.*** *This section has 06 questions.*
   - ***ii.*** *There is no negative marking.*
   - ***iii.*** *Do as per the instructions given.*
   - ***iv.*** *Marks allotted are mentioned against each question/part.*
7. ***SECTION-B: SUBJECTIVE TYPE QUESTIONS(30 MARKS):***
   - ***i.*** *This section contains 11 questions.*
   - ***ii.*** *A candidate has to do all the 11 questions.*
   - ***iii.*** *Do as per the instructions given.*
   - ***iv.*** *Marks allotted are mentioned against each question/part.*

==========

SECTION-A

OBJECTIVE TYPE QUESTIONS

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

i. What is a Workbook in Calc? 1

ii. ____ 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. Perseverance

iii. An ____ modifies or describes a noun or pronoun. 1

a. adverb b. adjective c. interjection d. none

iv. State whether the following statement is **True** or **False**: 1

"People with anti-social personality disorder disregard social rules and obligations "

2. **Answer the following 5 questions (1 x 5 = 5 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. If you are using the latest version of your browser, the address bar or the name of the site will appear in ____. 1

a. blue b. green c. red d. none

iii. Name the domain where database applications may be used for storing information regarding employees such as name, address, contact number, salary, position, joining date. 1

a. Airlines b. Companies c. Hotels d. none

iv. Which command is used to modify the structure of the table after making the table? 1

v. ____ command is used to delete records from a table. 1

a. DELETE b. REMOVE
c. DROP d. none

3. **Answer the following 6 questions**
(1 x 6 = 6 marks)

i. What is the function of Null Value Constraint? 1

ii. Which command is used to create a new database? 1

iii. Shalini wants to input the price of shoes as 99.99 . What should be the datatype and size of the column price in the table? 1

iv. Name the domain where database applications may be used for storing information regarding hotel staff, menu items and infrastructure. 1

a. Hotels b. Hospitals c. E-commerce d. none

v. Which of the following are web-based application? 1

a. E-governance b. Online food ordering

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

vi. Fill in the blank: 1

____ is the website for IRCTC site.

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

i. Name the domain where database applications may be used for storing information regarding communication networks, customers, call records, and their bills. 1

a. E-Commerce b. Government Sector

c. Telecommunications d. none

ii. Expand DISNIC. 1

iii. What do you understand by Tuple in a Database System? 1

iv. What is the full form of DML? 1

v. Which of the following is a client-side scripts? 1

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

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

i. Name any two railway booking site. 1

ii. Name the domain where database applications may be used for storing information such as student details, marks and result. 1

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

iv. Expand RDBMS. 1

v. Which command is used to cancel previously granted or denied permissions? 1

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

i. What do you understand by 'Web-based application'? 1

ii. Expand NeGD. 1

iii. Name the domain where database applications may be used for storing details of electoral roll, all types of taxes, criminal records. 1

a. E-Commerce b. Government Sector

c. Private Sector d. none

iv. If a user has not entered a value for an attribute, then which value that is specified while creating the table is used? 1

v. What is the use of Alias name to columns? 1

SECTION-B: SUBJECTIVE TYPE QUESTIONS

Answer the following 3 questions on Employability Skills (2 x 3 = 6 marks)

7. Mention four qualities that motivate an entrepreneur. 2

8. What do you understand by an Active Cell? Where does the address of the active cell displayed? 2

9. What do you understand by external motivation? Give an example to support your answer. 2

Answer the following 3 questions (2 x 3 = 6 marks)

10. The following commands are giving errors. Write the correct MYSQL commands. 2

(a) SELECT MAXIMUM(MARKS) FROM STUDENT;

(b) SELECT * FROM ITEM
WHERE COSTPRICE > 5000
ORDER BY ITEMNAME DESCENDING;

11. Name any two online shopping stores. Give an advantage of online shopping. 2

12. Why database management systems are used in various domains? 2

Answer the following 2 questions (3 x 2 = 6 marks)

13. Consider a MySQL table named as 'PRODUCT' with the following fields: PID, PNAME, PPRICE, PPROFIT. Write down SQL queries for the following: 3

i) Display the minimum profit with column name as MINPROFIT.

ii) Display the total number of products with column name as TOTALPRODUCTS.

iii) Display product ID and name of those products whose price is less than 5000.

14. Expand and define WIL. What is the aim of WIL? 3

Answer the following 3 questions (4 x 3 = 12 marks)

15. Write SQL commands on the basis of the given table STUDENT from (a) to (d). 4

STUDENT

S_ROLL_NO	S_NAME	S_CLASS	S_SEC	S_TOT_MARKS
53	Rohan Sen	10	A	498
47	Amit Das	12	B	402
50	Adil Khan	12	A	386
32	Rita Dey	10	C	480
21	Simran Singh	12	B	290

(a) To display the details of the students in descending order of their total marks.

(b) To display the students of class 12.

(c) To retrieve the names of all the students starting from the letter 'A'.

(d) To find the maximum and minimum total marks.

16. a) What do you understand by 'Data type'? 4

b) The various types of values in MySQL that a column / field can hold can be categorized in three main types.
Name them.

17. How online reservation / booking system is advantageous for the customers? *(Give any four valid points)* 4

==========

Name: _____ Sec:_____ Roll No:_____

CODE: A

BURNPUR RIVERSIDE SCHOOL, BURNPUR
HALF-YEARLY EXAMINATION: [2026-2027]
MATHEMATICS
CLASS: XII

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

General Instructions:

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

Section–A:

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

Section–B:

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

Section –C:

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

Section-D:

It has 4 LA type question of 5 marks.

Section –E:

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

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

==========

SECTION - A

1. How many relations are possible in set A such that n(A) = 2? 1

   a. 4 b. 8 c. 16 d. 32

2. A ={3,5}, then the number of reflexive relations on A is 1

   a. 2 b. 4 c. 0 d. 8

3. Let A = {a, b}. then the number of one-one functions from A to A possible are 1

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

4. If n(A)= p, then the number of bijective functions from set A to A are 1

   a. p b. p^2 c. p^{10} d. p!

5. If $A = \begin{bmatrix} 1 & 0 \\ 2 & 1 \end{bmatrix}$, $B = = \begin{bmatrix} x & 0 \\ 1 & 1 \end{bmatrix}$ and $A=B^2$, then x equals to 1

a. ±1 b. -1 c. 1 d. 2

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

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

7. If $A == \begin{bmatrix} cosp & -sinp \\ sinp & cosp \end{bmatrix}$ and $A+A^T = I$, then value of p is 1

a. $\frac{\pi}{3}$ b. $\frac{\pi}{6}$ c. $\frac{\pi}{4}$ d. $\frac{\pi}{2}$

8. If A is a skew symmetric matrix of order 3×3, then the value of |A| is 1

a. 0 b. 9 c. 3 d. 27

9. If area of a triangle with vertices (3,2) , (-1,4) and (6,k) is 7 sq units, then possible values of k is/are 1

a. 3 b. -4 c. -3, 4 d. 3, -4

10. Which of the following statement is not true for the function f(x)= [x], [x] is the greatest integer function and [x] represents greatest integer ≤ x. 1

a. f is not continuous at x= 3.
b. f is continuous at x= 3
c. f is continuous at x = 3.7
d. f is differentiable at x = 3.7

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

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

12. If $y = e^{3x}$, then y_2 is 1

a. y b. $\frac{1}{y}$ c. 3y d. 9y

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

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

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

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

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

a. [1, ∞) b. (-∞, 0) c. (-∞,∞) d. (0, ∞)

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

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

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

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

a. e^x tanx + c b. e^xlog cosx + c

c. e^x secx + c d. $-e^x$ logcos x + c

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

a. 0 b. 1 c. 4 d. 2 π

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

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

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

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

SECTION - B

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

OR

Show that f: N→N, defined by

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

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

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

24. Show that the function f(x) = 4x + 3, x ∈R is an increasing function. — 2

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

OR

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

SECTION - C

26. Express the matrix A as the sum of a symmetric and a skew-symmetric matrix. Where A = $\begin{pmatrix} 3 & -1 & 0 \\ 2 & 0 & 3 \\ 1 & -1 & 2 \end{pmatrix}$ — 3

27. Show that the function f(x) = $\begin{cases} 1-x\ , & when\ x < 1 \\ x^2-1\ , & when\ x \ge 1 \end{cases}$ is continuous but not differentiable at x=1. — 3

28. If log y = $\tan^{-1}$x , show that $(1+x^2)y_2 + (2x - 1)y_1 = 0$ — 3

OR

If $y = 3e^{2x} + 2e^{3x}$, prove that $\frac{d^2y}{dx^2} - 5\frac{dy}{dx} + 6y = 0$

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

OR

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

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

OR

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

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

SECTION - D

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

33. The sum of two numbers is 5. If the sum of the cubes of these numbers is least, then find the sum of the squares of these numbers. 5

34. Evaluate : $\int \frac{\cos 2x - \cos 2a}{\cos x - \cos a}$ dx 5

OR

Evaluate : $\int \frac{x}{x^4 - x^2 + 1}$ dx

35. Using the method of integration find the area of the ΔABC, coordinates of whose vertices are A(2,0) , B(4,5) and C(6,3). 5

OR

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

SECTION - E

36. A general election of Lok Sabha is a gigantic exercise. About 911 million people were eligible to vote and voter turned out was about 67%, the highest ever.

Let I be the set of all citizens of India who were eligible to exercise their voting right in general election held in 2019. A relation 'R' is defined on I as follows:

R = {(V_1, V_2): V_1, V_2 ∈I and both use their voting right in general election - 2019}

On the basis of the above information answer the following questions.

i) Two neighbours X and Y∈I. X exercised his voting right while Y did not cast her vote in general election-2019. Check whether X is related to Y or not. 1

ii) Mr. X and his wife W both exercised their voting right in general election-2019. Show that (X,W) ∈ *R and* (W,X) ∈ R 1

iii) Three friends F_1, F_2, F_3 exercised their voting right in general election-2019. Show that (F_1,F_2) ∈ *R, (*F_2, F_3*)* ∈ R and (F_1, F_3) ∈R 2

OR

iii) Show that the relation R defined on set I is an equivalence relation.

37. On her birthday, Seema decided to donate some money to children of an orphanage home. If there were 8 children less, everyone would have got Rs. 10 more. However, if there were 16 children more, everyone would have got Rs. 10 less. Let the number of children be x and the amount distributed by Seema for one child be y (in Rs.)
Based on the above information, answer the following questions:

a. Write matrix equations to represent the information given above. 1

b. Find the number of children who were given some money by Seema? 1

c. How much amount is given to each child by Seema? 2

OR

c. How much amount Seema spends in distributing the money to all the students of the Orphanage?

38. In an agricultural institute, scientists do experiments with varieties of seeds to grow them in different environments to produce healthy plants and get more yield.
A scientist observed that a particular seed grew very fast after germination. He had recorded growth of plant since germination, and he said that its growth can be defined by the function
$f(x) = \frac{1}{3}x^3 - 4x^2 + 15x + 2,\ 0 \leq x \leq 10$
where x is the number of days the plant is exposed to sunlight.

i) What are the critical points of the function f(x). 2

ii) Using second derivative test, find the minimum value of the function. 2

==========

Name:_____ Sec:_____ Roll No:_____

CODE: B

BURNPUR RIVERSIDE SCHOOL, BURNPUR
HALF - YEARLY EXAMINATION [2026 – 2027]
CLASS - XII
SUBJECT: MATHEMATICS

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

==========

General Instructions:

1. This question paper contains – **five sections A, B, C, D** and **E**. Each section is compulsory. However, there are internal choices in some questions.
2. **Section A** has 18 **MCQ's and 02** Assertion – Reason based questions of 1 mark each.
3. **Section B** has 05 **Short Answer (SA) – type** questions of 2 marks each.
4. **Section C** has 06 **Long Answer (LA-I) – type** questions of 3 marks each.
5. **Section D** has 04 **Long Answer (LA-II) – type** questions of 5 marks each.
6. **Section B** has 03 **Source Based / Case Based (CBQ) – type** question of 4 marks each.

==========

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

1. For the set A = {1, 2, 3}, define a relation R in the set A as follows R = {(1, 1), (2, 2), (3, 3), (1, 3)}. Then, the ordered pair to be added to R to make it the smallest equivalence relation is 1
   a) (3, 1)
   b) (2, 1)
   c) (1, 2)
   d) (1, 3)
2. Let R = {(a, b): a, b ∈ N and b = a + 5, a < 4}. Then the domain of R is 1
   (a) (1, 2, 3)
   (b) (4, 5, 6)
   (c) (2, 5, 7)
   (d) (2, 3, 5)
3. Let A and B be two non - empty sets and let 1
   f: A × B → B × A: f(a, b) = (b, a). Then f is
   (a) One – one and into
   (b) One – one and onto
   (c) Many – one and into
   (d) Many – one and onto

4. The function f: N → N: f(x) = $x^2 + x + 1$ is: 1

(a) One to one and onto
(b) One to one and into
(c) Many to one and into
(d) Many to one and onto

5. If $A = \begin{bmatrix} 1 & \lambda & 2 \\ 1 & 2 & 5 \\ 2 & 1 & 1 \end{bmatrix}$ is not invertible, then λ is: 1

(a) 2
(b) 1
(c) -1
(d) 0

6. If A is a square matrix then (A + A´) is 1

(a) A null matrix
(b) An identity matrix
(c) A symmetric matrix
(d) A skew- symmetric matrix

7. If $\begin{bmatrix} \cos\frac{2\pi}{7} & -\sin\frac{2\pi}{7} \\ \sin\frac{2\pi}{7} & \cos\frac{2\pi}{7} \end{bmatrix}^k = \begin{bmatrix} 1 & 0 \\ 0 & 1 \end{bmatrix}$, then the least positive integral value of k is 1

a) 7
b) 4
c) 3
d) 6

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

a) 2
b) ± 2
c) ± 3
d) 3

9. The value of k for which the points A (1, -1), B (2, k) and C (4, 5) are collinear is: 1

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

10. The function f(x) = |x − 3|, x ϵ R, is 1
    (a) Continuous but not differentiable at x = 3
    (b) Continuous and differentiable at x = 3
    (c) differentiable but not continuous at x = 3
    (d) none of the above

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

12. 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) -2
    (c) 0
    (d) 1

13. If $y = \tan^{-1}\left(\frac{2x}{1+15x^2}\right)$, then $\frac{dy}{dx}$ = 1
    (a) $\frac{5}{1+25\,x^2} - \frac{3}{1+9\,x^2}$
    (b) $\frac{5}{1+25\,x^2} + \frac{3}{1+9\,x^2}$
    (c) $\frac{3}{1+25\,x^2} - \frac{5}{1+9\,x^2}$
    (d) $\frac{3}{1+25\,x^2} + \frac{5}{1+9\,x^2}$

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

15. The radius of a circle is increasing at the rate of 0.3 cm/sec. At what rate is the area increasing when the radius is 10 cm? [Take π = 3.14] 1
    (a) 12.84 cm^2/sec
    (b) 15.84 cm^2/sec
    (c) 18.84 cm^2/sec
    (d) 12.24 cm^2/sec

16. $\int \frac{\sin^2 x - \cos^2 x}{\sin^2 x \cos^2 x} dx$ is equals to 1

a) tan x + cot x + C
b) – tan x + cot x + C
c) tan x + sec x + C
d) tan x + cosec x + C

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

a) sec (1 + log x) + C
b) cos (1 + log x) + C
c) tan (1 + log x) + C
d) cot (1 + log x) + C

18. $\int \left[\frac{1}{\log x} - \frac{1}{(\log x)^2} \right] dx =$ 1

(a) $\frac{x}{\log x} + c$

(b) $\frac{1}{\log x} + c$

(c) $-\frac{x}{\log x} + c$

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

ASSERTION – REASON BASED QUESTIONS

19. Assertion (A): The function f: R → R defined by $f(x) = x^3$ is one – one 1
Reason (R): A function f: X → Y is one - one if f(x) = f(y) ⇒ x = y for all x, y ∈ X.
(a) Both A and R are true and R is the correct explanation of A.
(b) Both A and R are true but R is not the correct explanation of A.
(c) A is true but R is false.
(d) A is false but R is true.

20. Assertion (A): the function $f(x) = \frac{|x|}{x}$ is discontinuous at x = 0 1

Reason (R): the left hand and right hand limit of the function $f(x) = \frac{|x|}{x}$ are not equal at x = 0.
(a) Both A and R are true and R is the correct explanation of A.
(b) Both A and R are true but R is not the correct explanation of A.
(c) A is true but R is false.
(d) A is false but R is true.

SECTION - B

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

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

OR

Prove that the function f: N → N defined by $f(x) = x^2 + x + 1$ is one – one but not onto.

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

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

24. An edge of a variable cube is increasing at the rate of 5cm/sec. How fast is the volume of the cube increasing when the edge is 10 cm long? 2

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

OR

Integrate: $\int \frac{(\sin x + \cos x)}{\sqrt{\sin 2x}}\, dx$.

SECTION - C

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

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

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

27. If the following function f(x) is continuous at x = 0, then find the value of k 3

$$f(x) = \begin{cases} \frac{1-\cos 2x}{2x^2}, & \text{if } x \neq 0 \\ k, & \text{if } x = 0 \end{cases}$$

28. If $x\sqrt{1+y} + y\sqrt{1+x} = 0$ and x ≠ y, prove that $\frac{dy}{dx} = -\frac{1}{(x+1)^2}$. 3

OR

Differentiate $\tan^{-1}\left(\frac{\sqrt{1+x^2}-1}{x}\right)$ with respect to $\sin^{-1}\left(\frac{2x}{1+x^2}\right)$

29. Find the intervals on which the given function f(x) is 3
(i) increasing
(ii) decreasing
where $f(x) = x^3 - 12x^2 + 36x + 17$

OR

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

30. Prove that: $\int_0^{\infty} \frac{x}{(1+x)(1+x^2)}\,dx = \frac{\pi}{4}$ 3

OR

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

31. Integrate: $\int \frac{2\log x}{x\,[2(\log x)^2 - \log x - 3]}\,dx$ 3

SECTION - D

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

32. If $y = \frac{\sin^{-1} x}{\sqrt{1-x^2}}$, show that $(1-x^2)\frac{d^2y}{dx^2} - 3x\frac{dy}{dx} - y = 0$. 5

33. An open box with a square base is to be made out of a given quantity of cardboard of area c^2. Show that the maximum volume of box is $\frac{c^3}{6\sqrt{3}}$ cubic units. 5

34. By using the properties of definite integral ,Evaluate the integral: $\int_0^{\pi/2} \frac{\cos^2 x}{\sin x + \cos x}\,dx$ 5

OR

Evaluate: $\int \frac{2}{(1-x)(1+x^2)}dx$.

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

OR

Using integration, find the area of ΔABC, whose vertices are A (2, 0), B (4, 5) and C (6, 3)

SECTION - E

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

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

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

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

Reflexive: If (a, a) ∈ R ∀a ∈ A .

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

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

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

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

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

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

OR

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

37. The sum of three numbers is 2. If twice the second number is added to the sum of first and third, we get 1. On adding the sum of second and third numbers to five times the first, we get 6. Based on the above information, answer the following questions

(i) Represent the equations in matrix form AX = B 1

(ii) Write the value of |A|. 1

(iii) Find the 1st and 2nd number by using matrix method of solution of system of linear equations. 2

OR

Find the 2nd and 3rd number by using matrix method of solution of system of linear equations.

38. A square piece of tin of side 18 cm is to be made into a box without a lid by cutting a square from each corner and folding up the flaps to form the sides.

Based on the above information, answer the following questions:

(i) What are the critical points in this problem? 1

(ii) What is the sign of the second derivative at the critical point? 1

(iii) What should be the side of the square to be cut off so that the volume of the box is maximum? 2

OR

Find the maximum volume of the box.

****

Name:_____ Sec:_____ Roll No:____

CODE : A

BURNPUR RIVERSIDE SCHOOL, BURNPUR
HALF YEARLY EXAMINATION [2026-27]
PHYSICAL EDUCATION
Class – XII

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

==========

GENERAL INSTRUCTION:

1) The question paper consists of 5 sections and 37 questions. .
2) Section A consists of question 1-18 carrying 1 mark each and is multiple choice questions. All questions are compulsory.
3) Sections B consist of questions 19-24 carrying 2 marks each and are very short answer types and should not exceed 60-90 words. Attempt any five.
4) Sections C consist of question 25-30 carrying 3 marks each and are short answer types and should not exceed 100-150 words. Attempt any 5.
5) Section D consists of question 31-33 carrying 4 marks each and are case studies. There is internal choice available.
6) Sections E consist of question 34-37 carrying 5 marks each and are short answer types and should not exceed 200-300 words. Attempt any 3

==========

SECTION - A

Q.1 _____ is an event to showcase children and youth's abilities and powers on the sports field. 1

a) Run for fun b) Run for specific cause
c) Sports Day d) Health Run

Q.2 Seeding is decided on the basis of 1

a) Previous Performance
b) Future Performance
c) Current Performance
d) Bad Performance

Q.3 Knockout tournament is also known as 1

a) Elimination tournament
b) Round Robin tournament
c) League tournament
d) Challenge tournament

Q.4 A girl is participating in sports for 2 years. Identify the psychological benefits for her from the following. 1

a) Helps in increasing bone density
b) Helps in improving muscle tone
c) Helps to improve self – esteem
d) Helps in improving communication

Q.5 Weakening of bones due to loss of bone density and improper bone formation is known as _____ 1

a) Amenorrhea b) Anorexia Nervosa
c) Osteoporosis d) Lordosis

Q.6 Halasana is used for curing which of the following deformities? 1

a) Kyphosis b) Scoliosis c) Lordosis d) Flatfoot

Q.7 Paschimottanasana is contraindicated in case of _____ 1

a) Migraine
b) Low Blood Pressure
c) Pregnancy
d) All of the above

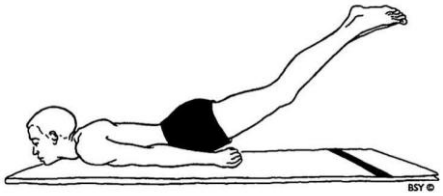
Q.8 Assertion (A): In hypertension, heart pumps more blood than normal situation. 1

Reason (R): Vakrasana is helpful for those suffering from ulcer and enlargement of liver.

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.

Q.9 Identify the asana shown in the picture given below and choose the correct option from the following. 1



a) Bhujangasana b) Katichakrasana
c) Pawanamuktasana d) Shalbhasana

Q.10 The oath 'Let me win. But if I cannot win, let attempt' is related to which of the following games ? 1
a) Special Olympics b) Paralympics
c) Deaflympics d) Summer Olympics

Q.11 Watching others play and enjoy which in turn motivates the child with special need to participate is a part of which kind of strategy? 1
a) Mental b) Physical c) Psychological d) Social

Q.12 Logo of Deaflympics is inspired by the sign for 1
a) Olympics b) IPL c) IPC d) None of these

Q.13 For developing muscles, which nutrient should be increase in diet? 1
a) Vitamins b) Minerals c) Protein d) Carbohydrate

Q.14 Who discovered Vitamin A? 1
a) Dr. Mc Collum b) Dr. Coubertin
c) Dr. J.B Nash d) Dr. Harvard

Q.15. Match the following: 1

List I	List II
A. Vitamin B12	1. Thiamin
B. Vitamin B3	2. Biotin
C. Vitamin B7	3. Cobalamin
D. Vitamin B1	4. Niacin

Codes:

	A	B	C	D
a)	4	3	2	1
b)	2	3	4	1
c)	1	2	3	4

d) 3 4 2 1

Q.16. The height of the bench used in Harvard Step Test for men is _____ 1

a) 16 inches b) 20 inches c) 22 inches d) 15 inches

Q.17. The amount of oxygen which can be absorbed and consumed by the working muscles from the blood is called _____ 1

a) Oxygen uptake b) Oxygen intake

c) Oxygen transport d) Vital capacity

Q.18. Which test is used to test the functional ability amongst senior citizen? 1

a) Rockport one mile test b) Harvard step test

c) Rikli and Jones test d) Fitness index score

SECTION – B (Attempt any five questions)

Q.19. Enlist two test items of Johnson _ Metheny Test of motor educability. 2

Q.20. List down any two sources and two functions of protein. 2

Q.21. What is the role of Physical Education teachers in promoting inclusion in sports? 2

Q.22. Enlist four asanas those help to control asthama. 2

Q.23. What do you mean by 'Bulimia'? 2

OR

Q.24. Explain any two functions of marketing committee, before and during the sports competition. 2

SECTION – C (Attempt any five questions)

Q.25. Leaders can be trained through Physical Education. Justify your answer. 3

Q.26. What are the benefits of physical activities for children with special needs? 3

Q.27. Explain the benefits and contraindication of Vakrasana. 3

Q.28. Create a mind map including any 3 advantages of physical activities for children with special needs. 3

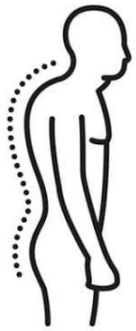
Q.29. Mention any three importance of diet during competition. 3

OR

Q.30. Describe the purpose and procedure of six minutes walk test for aerobic endurance. 3

SECTION - D

Q.31. Sheetal spent her weekend checking the health status of all the security guards of her huge gated community as a part of project work assigned by PE teacher. She found out that more than half of them have shown a significant deformity in the upper part of their vertebral column. 4



(i) The term used to define this deformity is _____
a) Lordosis b) Scolosis c) Kyphosis d) Both (a) and (b)
(ii) This deformity is mainly caused due to _____
(iii) The asanas which helps in rectifying such conditions is are _____ and _____.
(iv) Due to covid pandemic, most of the children attending online classes with bad sitting posture may experience this condition later.
a) Kyphosis b) Lordosis c) Scolosis d) Flat foot

Q.32. The above pose can be identified as 4



(i) Vajrasana ii) Trikonasana
(iii) Chakrasana iv) Padmasana
(ii) This asana is used to cure _____.

(iii) This asana is contraindicated when a person is suffering with _____.
(iv) While performing this asana, breathing should be _____.
(a) Slower (b) Faster (c) Only inhale (d) Only exhale

Q.33. Vitamins and minerals are essential nutrients which protect us from various disease and are helpful for general development of the body. 4



(i) _____ is a group of 8 water soluble vitamins which are important for cellular metabolism.
(ii) _____ disease is caused due to lack of vitamin C.

(iii) Vitamin _____ is important for healthy bones and teeth.
(iv) Vitamin _____ is needed for blood clotting.

SECTION – E (Attempt any three questions)

Q.34. Explain pre, during and post game responsibility of officials of various committees for organizing a sports tournament smoothly. 5

Q.35. What are the causes of hypertension? Explain any two yogic asanas to prevent hypertension? 5

Q.36. Explain the detail about Paralympic Games. 5

OR

Q.37. Make a table of test items listed under fitness test by SAI (Age group 9 – 18 years) along with the objectives of conducting them. Explain the administration of any one of them. 5

==========

Name: _____ Sec: _____ Roll No: _____

CODE: B

BURNPUR RIVERSIDE SCHOOL, BURNPUR
HALF YEARLY EXAMINATION [2026-2027]
PHYSICAL EDUCATION (048)
CLASS: XII

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

==========

General Instructions:

1. The question paper consists of 5 sections and 37 questions.
2. Section-A consists of questions 1-18 carrying 1 mark each and is multiple choice questions. All are compulsory.
3. Section-B consists of questions 19-24 carrying 2 marks each and are very short answer types and should not exceed 60-90 words. Attempt any 5.
4. Section-C consists of questions 25-30 carrying 3 marks each and are short answer types and should not exceed 100-150 words. Attempt any 5.
5. Section-D consists of questions 31-33 carrying 4 marks each and are case studies.
6. Section-E consists of questions 34-37 carrying 5 marks each and are long answer types and should not exceed 200-300 words. Attempt any 3.

SECTION-A

[All questions are compulsory]

1. If 27 teams are participating in a Cluster ll Basketball Tournament on knock-out basis, and four teams are to be kept in Special seeding, than how many byes will be there. 1

   A) 5 byes
   B) 9 byes
   C) 11 byes
   D) No byes

2. In Cyclic Tournament, the teams are rotated. 1

   A) Clockwise
   B) Anti-clockwise
   C) Up to down
   D) All of them

3. Which of the tournament is good when there is large number of teams from different regions across India? 1

A) Knock-out Tournament
B) League Tournament
C) Challenge Tournament
D) Combination Tournament

4. Normal menstrual Cycle varies from: 1

A) 13 to 20 days
B) 19 to 21 days
C) 21 to 25 days
D) 21 to 35 days

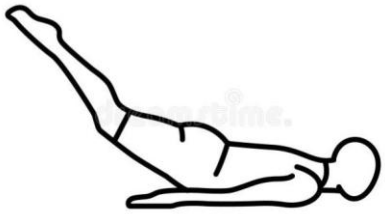
5. Lateral curve in your spine is known as: 1

A) Kyphosis
B) Scoliosis
C) Lordosis
D) Knock knee

6. Children of 3-4 years of age should spend at least _____ minutes of variety of types of physical activities at any intensity. 1

A) 40 minutes
B) 80 minutes
C) 140 minutes
D) 180 minutes

7. Identify the below given asana: 1



A) Bhujangasana
B) Dhanurasana
C) Chakrasana
D) Shalabhasana

8. 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):- In Matsyasana, body takes shape of a fish.

Reason (R):- Matsyasana is done in standing posture.

In the context of the above two statements, which one of the following is correct?

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

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

(C) Assertion (A) is true, but Reason (R) is false.

(D) Assertion (A) is false, but Reason (R) is true.

9. It resembles a dead body: 1

A) Pawanmuktasana
B) Shavasana
C) Vajrasana
D) Tadasana

10. What is the right term that should be used for children with special needs? 1

A) Viklang
B) Divyang
C) Differently Abled
D) All of the above

11. 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):- Education is meant for all the students irrespective of the state of their physical and mental health.

Reason (R):- Education is a fundamental right of every child between the age group of 6 to 14 years.

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.

12. Which of the following is not a physical disability? 1

A) Injury to spinal cord
B) Injury to neck
C) Loss of limbs
D) Attention deficit disorder

13. Given below are types of diet in List-I with their use in sports List-II. 1

	Column A		Column B
a)	Protein	(i)	These are the main source of energy
b)	Carbohydrates	(ii)	It is a negligible source of energy
c)	Fats	(iii)	Repair body cells
d)	Roughage	(iv)	It helps in transporting fat-soluble vitamins

Match the items of List-I with List-II and choose the correct option from the following:-

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

14. Which of the following are fat soluble vitamins? 1

A) Vitamin D & K
B) Vitamin B & C
C) Vitamin A & E
D) Both options A & C

15. Given below are types of food sources with List-I and their diseases in List-II. 1

	List-I (Vitamin)		List-II (Disease)
a)	Vitamin-A	(i)	Pyorrhea
b)	Vitamin-B	(ii)	Rickets
c)	Vitamin-C	(iii)	Beri-Beri
d)	Vitamin-D	(iv)	Night blindness

Match the items of List-I with List-II and choose the correct option from the following:-

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

16. The test duration for the Harvard Step Test is: 1

A) 3 minutes
B) 4 minutes
C) 5 minutes
D) 6 minutes

17. Which test item is used to measure lower body flexibility? 1

A) Chair Stand Test
B) Arm Curl Test
C) Chair Sit and Reach Test
D) 6 minutes Walk Test

18. Which is not an item of Rikli and Jones Test? 1

A) 8 foot Up and Go Test
B) Sit and Reach Test
C) 6 minutes Walk Test
D) Arm Curl Test

SECTION-B

[Attempt any 5 questions]

19.	Define tournament. Name any 2 types.	1+1
20.	Explain any two psychological benefits of women's participation in sports.	2
21.	Write the formula to calculate BMI. What does BMI between 18.5 and 24.9 mean?	1+1
22.	Write briefly about the concept of inclusive education.	2
23.	Write any four differences between simple and complex carbohydrates.	2
24.	Define test and measurement in sports.	1+1

SECTION-C

[Attempt any 5 questions]

25.	Discuss in detail about spots day.	3
26.	Write about the deformities of spinal curvature.	3
27.	Explain the procedure and benefits of 'plough' pose.	3
28.	"Participation in physical activities is advantageous for children with special needs." Briefly explain any three advantages.	3
29	Discuss any four pitfalls of dieting.	3
30.	How is Partial Curl-up (30 seconds) Test done?	3

SECTION-D

31. Anu was assigned a project work by her physical education teacher. She had to make a report by checking the health status of all the security guards of her huge gated community. She found out that more than half of them showed a significant deformity in the upper part of their vertebral column.

Answer the following questions based on the above case and your prior knowledge. 4

i) The term used to define this deformity is:

A) Lordosis
B) Scoliosis
C) Kyphosis
D) Both (a) & (b)

ii) The deformity is mainly caused due to:

A) Carrying heavy loads
B) Lack of exercise
C) Weak muscles
D) All of these

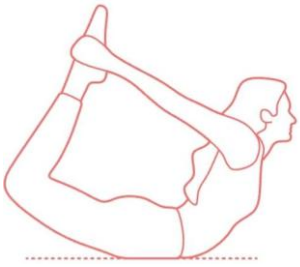
iii) Which of the following helps in rectifying such condition?
A) Chakrasana
B) Dhanurasana
C) Halasana
D) Both (a) & (b)

iv) Bending head backward in standing position helps in getting rid of:
A) Lordosis
B) Kyphosis
C) Scoliosis
D) Both (a) & (b)

OR

v) Due to covid pandemic, most of the children attending online classes with bad sitting posture may experience this condition later:
A) Kyphosis
B) Lordosis
C) Scoliosis
D) Flat foot

32. Look the picture given below and answer the questions that follow:



4

i) Identify the above pose from the asana given below:
A) Dhanurasana
B) Chakrasana
C) Vajrasana
D) Vakrasana

ii) While performing this asana breathing should be _____.

A) Slow
B) Deep inhalation
C) Only inhalation
D) Only exhalation

iii) This asana is used to cure _____.
A) Obesity
B) Hypertension
C) Asthma
D) Both (a) & (b)

iv) Above given picture of asana is performed mainly in which position?
A) Standing
B) Sitting
C) Lying on the abdomen
D) Lying on the back

33. Kabir kumar, a state level wrestler has been advised by his coach to take adequate amount of simple carbohydrates, vitamins, minerals and protein in his diet along with its training schedule.
Answer the following questions based on the above case and your prior knowledge:-

i) What type of macro-nutrient is primarily involved in muscle repair?
A) Carbohydrates
B) Minerals
C) Fats
D) Protein 4

ii) What type of fat is typically considered unhealthy and linked to Cardiovascular diseases?
A) Saturated
B) Unsaturated
C) Polyunsaturated
D) Monounsaturated

iii) What type of carbohydrates is stored in the liver and muscles for energy?

A) Glucose
B) Sucrose
C) Glycogen
D) Fructose

iv) At least how much of protein is required after competition to enhance muscle recovery?
A) 20 gm
B) 30 gm
C) 40 gm
D) 50 gm

SECTION-E

[Attempt any 3 questions]

34.	Mention all the calculations and steps involved to draw a elimination fixture of 19 teams.	1+4
35.	Discuss the procedure, benefits and contraindications of Paschimottanasana.	2+2+1
36.	How can inclusive education be implemented in India effectively? Explain required.	5
37.	What do you mean by Basal Metabolic Rate and Resting Metabolic Rate? Discuss the procedure of push-ups for boys and Modified push-ups for girls.	1+1+ 1½+1½

****