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PA-IV Assignment: 2025 26

Class-XII Commerce

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1.	ENGLISH
	<p><u>Poets and Pancakes</u></p> <p>❖ <u>Easy Level Questions</u></p> <ol style="list-style-type: none">1. Who is the author of Poets and Pancakes?2. What was the name of the studio discussed in the chapter?3. What was “Pancake” in Gemini Studios?4. Who was the boss of Gemini Studios?5. Where was Gemini Studios located?6. What is the setting of Poets and Pancakes?7. Why was the make-up department called the “Pancake department”?8. Who was the boss of Gemini Studios and what kind of person was he?9. What was Asokamitran’s role in Gemini Studios?10. How does Asokamitran describe the atmosphere in Gemini Studios? <p>❖ <u>Medium Level Questions</u></p> <ol style="list-style-type: none">1. What work was done in the make-up department of Gemini Studios?2. Why does the author mention that the make-up department looked like a hair-cutting salon?3. What was the political inclination of most people in Gemini Studios?4. Who was the legal adviser and what was peculiar about him?5. What did the author, Asokamitran, do at Gemini Studios?6. How does the author use humor to describe the make-up department?7. What do we learn about the people working in Gemini Studios?8. What was the incident involving the legal adviser and the actress?9. Why were the people at Gemini Studios excited about the visit of an English poet?10. What does Poets and Pancakes tell us about the author’s personality? <p>❖ <u>Hard Level Questions</u></p> <ol style="list-style-type: none">1. Describe the irony in the visit of the English poet to Gemini Studios.2. What was the author’s reaction after finding Stephen Spender’s name later in The Encounter magazine?3. What does the chapter reveal about the contrast between film world glamour and reality?4. How does Asokamitran use humor and satire in the essay?5. What is the main theme or message of Poets and Pancakes?6. Explain the irony of Stephen Spender’s visit to Gemini Studios.7. Discuss the theme of illusion versus reality in Poets and Pancakes.8. How does Poets and Pancakes reflect the clash between literature and cinema?9. Analyze Asokamitran’s narrative style in Poets and Pancakes.10. What is the main message of Poets and Pancakes? <p><u>Memories of childhood</u></p> <p>❖ <u>Easy Questions</u></p> <ol style="list-style-type: none">1. What is the main theme of “Memories of Childhood”?2. Who are the two authors of the chapter “Memories of Childhood”?3. What made Zitkala-Sa feel uncomfortable at the school?4. What community did Bama belong to?5. What lesson did Bama’s brother Annan teach her?6. Describe Zitkala-Sa’s experience at the school when she was forced to have her hair cut.7. How does Bama’s story “We Too Are Human Beings” reflect the caste discrimination in Indian society?8. What similarities do Zitkala-Sa and Bama share in their childhood experiences?9. What lesson did Bama learn from her brother, and how did it change her life?10. What does the title “Memories of Childhood” signify? <p>❖ <u>Medium Questions</u></p> <ol style="list-style-type: none">1. How did Zitkala-Sa react when her hair was about to be cut?2. Why did the people in Bama’s village carry packets of food without touching them?3. What emotions did Bama feel when she realized the reason for the man’s behavior with the food packet?4. How are the childhood experiences of Zitkala-Sa and Bama similar?5. What message does “Memories of Childhood” convey to readers?6. How does Zitkala-Sa’s story criticize the forced assimilation of Native Americans?

7. Discuss the emotional transformation that Bama undergoes in her story.
8. How are gender and social discrimination portrayed in “Memories of Childhood”?
9. How does education serve as a tool of empowerment in both stories?
10. What impact do the childhood experiences have on the adult lives of Zitkala-Sa and Bama?

❖ Difficult Questions

1. Analyze how “Memories of Childhood” portrays the theme of cultural identity and resistance.
2. Compare the settings of Zitkala-Sa’s and Bama’s experiences. How do they influence the narratives?
3. How does language play a role in oppression and liberation in “Memories of Childhood”?
4. What is the significance of hair-cutting in Zitkala-Sa’s story?
5. Discuss how the personal experiences of the authors become a form of social protest.
6. Examine the theme of resistance and identity in “Memories of Childhood.”
7. Compare how colonization and caste oppression are represented through personal experiences.
8. How does “Memories of Childhood” use personal narrative to make a political statement?
9. Discuss how the act of storytelling helps preserve cultural memory and inspire social change.
10. Analyze how the two parts of “Memories of Childhood” complement each other in message and tone.

2. ACCOUNTANCY

❖ Easy level:

	Particulars	Account No.	Dr. Amount (₹)	Cr. Amount (₹)
(A)	Revaluation A/c To Furniture A/c	Dr.	63,000	63,000
(B)	Furniture A/c To Revaluation A/c	Dr.	70,000	70,000
(C)	Revaluation A/c To Furniture A/c	Dr.	70,000	70,000
(D)	Furniture A/c To Revaluation A/c	Dr.	63,000	63,000

5. Assertion: On retirement of a partner, the gaining ratio is calculated.
Reason: The gaining ratio shows how much share of profits the continuing partners are sacrificing.

6. Lalit, Madhur and Neel were partners in a firm sharing profits and losses in the ratio of 2 : 2 : 1. Neel retired and his capital after making the necessary adjustments on account of reserves and revaluation of assets and liabilities was ₹ 10,00,000. Lalit and Madhur agreed to pay Neel ₹ 22,00,000 in full settlement of his claim.
Pass necessary journal entries for the treatment of goodwill and making final payment to Neel.

7. X, Y and Z are partners sharing profits in 3:2:1. Z retires and his share is taken equally by X and Y. Calculate the new profit-sharing ratio and gaining ratio.

8. A, B and C are partners sharing profits equally. C dies on 30th June. Profit for the year is estimated at ₹ 1,20,000. Calculate C's share of profit up to the date of death.

9. P, Q and R are partners in the ratio 5:3:2. R is admitted for 1/4th share. He brings ₹1,00,000 as capital and ₹40,000 as goodwill. The new ratio is agreed to be 4:3:3. Prepare the Journal Entries for:
(a) Admission of R (b) Treatment of goodwill (c) Adjustment of sacrificing ratio

10. A, B and C are partners sharing profits in the ratio 4:3:3. C retires. On revaluation:
- Building increases by ₹50,000
- Machinery decreases by ₹20,000
- A provision for doubtful debts of ₹6,000 is created
C's share is to be transferred to his loan account.
Prepare the Revaluation Account, Partners' Capital Accounts

❖ **Medium level:**

- A, B, and C share profits in the ratio 3:2:1. D is admitted for 1/6 share. The share is taken equally by A and B.
Calculate the sacrificing ratio of A and B.
- X, Y, and Z share profits in the ratio 4:3:3. W is admitted and brings goodwill of ₹60,000 in cash. New profit-sharing ratio becomes 3:2:1:2.
Calculate the gaining ratio and the amount of goodwill credited to each old partner.
- Assets and liabilities of a firm undergo the following changes at admission:
 - Machinery increases by ₹20,000
 - Stock decreases by ₹8,000
 - A provision for doubtful debts of ₹5,000 is to be created
 Old partners M & N share profits in ratio 5:3.
Prepare the Revaluation Profit sharing between the old partners.
- New Capital Calculation (Admission)
P and Q share profits 5:4. R is admitted for 1/5th share. The firm's capital after admission is to be ₹2,50,000, divided in the new profit-sharing ratio of 5:4:3.
Calculate the capital of R.
- A, B, and C share profits in the ratio 6:5:4. B retires.
Calculate the new ratio between A and C.
- Adayant, Shifa and Rohan were partners in a firm sharing profits and losses in the ratio of 2 : 1 : 2. Their Balance Sheet as at 31st March, 2024 stood as follows:
Balance Sheet of Adayant, Shifa and Rohan as at 31st March, 2024

Liabilities	Amount (₹)	Assets	Amount (₹)
Capitals :			
Adayant 4,00,000		Building 4,10,000	
Shifa 1,20,000		Investments 1,32,500	
Rohan 1,80,000	7,00,000	Stock 17,500	
General Reserve	1,20,000	Debtors 63,000	
Bills Payable	1,40,000	Cash at Bank 1,37,000	
Creditors	1,20,000	Cash at Hand 3,20,000	
	10,80,000		10,80,000

Shifa died on 30th June, 2024. As per the partnership deed, the executors of Shifa were entitled to:

- Amount standing to the credit of her capital account.
- Interest on capital which was ₹5,750.
- Her share of goodwill which was ₹42,000.
- Her share in the profits of the firm from the date of the last Balance Sheet up to the date of death which amounted to ₹ 76,250.
- Shifa's executors were paid half of the payable amount immediately and the balance amount was to be paid in two equal yearly instalments along with interest 8% p.a.

Pass necessary journal entries for the above transactions on Shifa's death.

- At the time of L's retirement from a partnership:
 - Building is appreciated by ₹30,000
 - Furniture depreciates by ₹5,000
 - Outstanding expenses of ₹4,000 are to be provided
 Profit-sharing ratio among partners K, L, M was 3:3:2.
Calculate L's share of revaluation profit or loss.
- A, B, and C share profits in the ratio 2:2:1. C dies on 30 September 2024.
Profit of the firm for the year ending 31 March 2025 is estimated at ₹2,40,000.
Calculate C's share of profit up to the date of death (for 6 months).
- After admission, the total capital of the firm is ₹4,00,000. New partner S brings in ₹1,00,000 for 1/4th share A the business.
Calculate the value of goodwill of the firm using the hidden goodwill method.

- A, B, and C share profits in the ratio 4:3:3. C retires. The continuing partners agree to share future profits in the ratio 5:3. After adjustments, total capital of the new firm is fixed at ₹4,00,000.
Calculate the new capitals of A and B.

❖ **Hard Level:**

- A, B, and C share profits in the ratio 7 : 5 : 4. D is admitted for 1/6th share, which he acquires 2/3rd from A and 1/3rd from C.
D brings ₹1,40,000 as capital, which is exactly equal to his capital share in the new firm.
The capitals of A, B, and C (before adjustment) are ₹3,50,000 ; ₹2,60,000 ; and ₹1,80,000.
Calculate the total capital of the firm and the value of hidden goodwill.

2. X, Y, Z share profits 3 : 3 : 2. W is admitted. The firm revalues assets but decides not to alter balance sheet values.
 Revaluation results:

- Increase in Land by ₹60,000
- Decrease in Stock by ₹25,000
- Provision for repairs ₹15,000

 W's new share is 1/5, given entirely by X.
 Prepare the Memorandum Revaluation Account and compute the final adjustment to partners' capital accounts.

3. P, Q, R share profits 4 : 3 : 3. S is admitted for 1/8th share.
 New ratio is 5 : 4 : 4 : 3.
 Total capital of the firm after admission is fixed at ₹9,60,000.
 Existing capitals are: P: ₹3,00,000; Q: ₹2,40,000; R: ₹2,00,000.
 Calculate the capital S must bring and the adjustments needed among old partners.

4. A, B, C share profits 5 : 4 : 3. B retires.
 After adjustments, the continuing partners decide the new capital of the firm shall be ₹6,60,000, in their new ratio 7 : 5.
 A and C's existing capitals after revaluation are ₹3,90,000 and ₹2,10,000.
 Goodwill is valued at ₹1,80,000 and A & C decide not to raise goodwill.
 Compute how much A and C should contribute/withdraw to adjust capitals after settling B's goodwill share.

5. M, N, and O share profits 6 : 5 : 4. N retires.
 Revaluation:

- Building increases by ₹1,20,000
- Creditors overvalued by ₹20,000
- Machinery decreases by ₹40,000

 M and O take N's share in 3 : 2 ratio.
 Calculate N's share of revaluation profit and goodwill if goodwill is valued at 3 years' purchase of average profits (profits of the last 3 years: 3,60,000; 2,40,000; 3,00,000).

6. A, B, C share profits 3 : 3 : 2. C dies on 30 November 2024.
 Profit for year ending 31 March 2025 is expected to be ₹12,00,000.
 Average profit of past 4 years is ₹10,00,000. Goodwill is valued at 2 years' purchase of average profit.
 Calculate C's total claim for: ((a) profit up to death, ((b) goodwill portion.

7. X, Y, Z share 2 : 2 : 1.
 Normal rate of return = 10%
 Capital employed = ₹15,00,000
 Average profit of last 5 years = ₹2,10,000
 Z sacrifices 1/3rd of his share, while X and Y sacrifice equally to admit W.
 Compute ((a) super profit, ((b) goodwill, ((c) distribution of goodwill among partners.

8. L, M, and N share profits 3 : 3 : 2. N retires.
 Remaining partners want capitals in new ratio 5 : 3 with total capital of ₹8,00,000.
 Before adjustment, capitals are L: ₹4,50,000; M: ₹3,00,000.
 Firm's goodwill is not appearing in books; N's share of goodwill (hidden) is calculated based on his capital compared to implied capital.
 Find N's hidden goodwill share and the capital adjustments required for L and M.

9. A, B share profits 3 : 2. C is admitted and brings in machinery valued at ₹2,50,000 as capital and goodwill combined.
 Revaluation of assets results in a net loss of ₹40,000 shared by A and B.
 New profit ratio is 4 : 3 : 3.
 Determine how much of C's contribution is treated as capital and how much as goodwill.

10. Under fixed capital system, partners P, Q, R share profits 5 : 3 : 2.
 R dies on 31st October, 2024.
 Adjustments at death:

- Profit to date based on last year's profit of ₹9,60,000
- Revaluation profit of ₹1,20,000
- General reserve of ₹80,000

 Goodwill is valued at 4 years' purchase of average profit of 3 years: 7,20,000; 9,60,000; 8,40,000.
 Calculate R's total

3.	BUSINESS STUDIES
	<u>Level 1:</u>
	<ol style="list-style-type: none"> 1. Explain 'Vestibule Training' as a method of training. 2. Apha Enterprises is a company manufacturing water geysers. The company has a functional structure with

four main functions Production, Marketing, Finance and Human Resource. As the demand for the product grew, the company decided to hire more employees. Identify the concept which will help the Human Resource Manager in deciding the actual number of persons required in each department.

3. What is the primary difference between recruitment and selection?
4. Explain any three benefits of training to the employees. Difference between training and development.
5. State the first four steps involved in the process of choosing the best candidate out of a number of prospective candidates for a job.
6. The workers of a factory are unable to work on new machines and always demand for help of supervisor. The Supervisor is overburdened with their frequent calls. Suggest the remedy.
7. Identify the type of recruitment in the following cases:
 - a) In a cotton cloth manufacturing company the productivity has declined during last couple of years. When the senior management decides to go into the root cause they find that there is lack of new talent in the organization and the organization is suffering from 'inbreeding'.
 - b) In 'Make my dress', a company with a vision, employees have a low spirit of competition and their enthusiasm level is very low as they find it difficult to have a good level of competition.
 - c) In a company there are many highly qualified personnel who are trained in different scenarios. They have a lot of experience and knowledge about the latest in the market.
 - d) A company XYZ is enjoying wider choice of employees and is doing great.
 - e) There is a lot of dissatisfaction among the existing employees in an organization. This is due to reduced chances of promotion.
 - f) A budding organization has a confused approach towards staffing. There have been Frequent transfers resulting in the reduction of productivity.
 - g) An organization has a policy of time bound promotions which has made the Employees lethargic.
 - h) The recruitment process of an organization is very costly. They have to spend a lot of money on expenses like advertisement.
8. These are run by the Government as a source of recruitment for unskilled and skilled operative jobs. What is being referred to here?
9. Explain the following external sources of recruitment:
 - (i) Direct Recruitment
 - (ii) Casual Callers
10. State any four limitations of internal sources of recruitment.

Level 2:

1. 'Planning is looking ahead, and controlling is looking back.' Comment on this statement and explain its limitations.
2. By listing specialized activities of an HR manager beyond basic staffing, clarify how Human Resource Management is a broader concept than staffing
3. Explain how controlling contributes to achieving organizational goals and improving employee motivation.
4. Explain why planning is incomplete without controlling.
5. Explain the principle, "An effort to control everything may end up in controlling nothing," and discuss its importance for managers.
6. It is recruitment, selection, development, utilization, compensation and motivation of human resources of the organization. Give the name of the concept mentioned here.
7. Though the company XYZ has started its recruitment timely the process is taking a lot of time. The earlier methods used by the Company needed change. Therefore, it has decided to use internet for its help so that it can get qualified personals. The organization knows that its challenges are not going to be over. It decides to have different types of good quality tests at the stage of selection. The three types of tests are:
 - (i) Test A will involve measuring the ability of the employees to learn new skills. This test can somehow foretell the ability of an individual to develop.
 - (ii) Test B will involve measuring the current existing skills of the employees. These skills are the ones which are already possessed by the employees.
 - (iii) Test C will check the applicant's reaction to emotions evaluating, value based and maturity evaluating questions. However these tests are tough to be designed and would pose challenge to the organization.
- a) Which type of recruitment is done by Company XYZ?

- b) Which specific type of external recruitment is later adopted by the company?
- c) Which one more benefit will occur with this new adoption?
- d) Identify the different tests given in the above case.

8. Rana & Co. is a large manufacturing unit. Recently the company had conducted time and motion studies and concluded that on an average, a worker could produce 300 units per day. However, it has been noticed that the average daily production per worker is in the range of 200-225 units. (a) Name the function of management and identify the steps in the process of this function which helped in finding out that the actual production of a worker is less than the set target. (b) To complete the process of the function identified in (a) and to ensure the performance as per time and motion studies, explain what further steps a manager has to take?

9. 'COMVIL Ltd.' is a large company engaged in assembling of air-conditioners. Recently the company had conducted the 'Time' and 'Motion' study and concluded that on an average, a worker can assemble ten air-conditioners in a day. The target volume of the company in a day is assembling of 1,000 units of air-conditioners. The company is providing attractive allowances to reduce labour turnover and absenteeism. All the workers are happy. Even then the assembling of air-conditioners per day is 800 units only. To find out the reason, the company compared actual performance of each worker and observed through CCTV that some of the workers were busy in gossiping. (a) Identify the function of management discussed above, (b) State the steps in the process of the function identified which are discussed in the above paragraph.

10. OM Ltd. is engaged in manufacturing of machine components. The target of production is 200 units daily. The company had been successfully attaining this target until two months ago. Over the last two months it has been observed that daily production varies between 150-170 units. Identify the possible causes for the decline in production and the steps to be taken to achieve the desire targets.

Level 3:

1. The purpose of this test was to find out how much capability a person has to mix-up with other persons, and whether he can influence other persons and get influenced by them. Which tests is indicated in this situation?
2. "Internal sources of recruitment are always better than external sources of recruitment." Do you agree with this statement? Justify your answer with arguments for both sides, considering different organizational needs.
3. A startup tech company is experiencing a talent war with larger, established competitors who are attracting most qualified candidates. The company needs employees with specific "hard skills" but often only finds candidates with "soft skills." As an HR manager, what problems do you identify, and what strategies would you recommend to resolve this, including the potential impact on the company?
4. Which type of personnel do management consultancy firms recruit?
5. Present day human resource management is a broader concept" Explain?
6. 'If anything goes wrong with the performance of key activities, the entire organization suffers. Therefore, the organization should focus on them.' Explain the statement with a suitable example.
7. 'Ashish Steel Makers' has decided to include a team of dynamic managers in the Company. For this they want to judge the pattern of interests of the potential managers. After giving this test they want to further know how much the candidate is useful for organization. They decide to take another test which can measure the existing skills of the candidates. Rajeev, an exceptional candidate, is given certain document which contains information like job title, pay, allowances, responsibilities, etc. After the employees join they are given a very good training. The Company doesn't want to stop at 'training' which is a job related process. They want to bring a concept which is career related process.
 - a) Which two type of selection tests are highlighted in the above case?
 - b) Which document is given to Rajeev?
 - c) Name one benefit that employees will have from training. d) Which career related process is here referred to?
8. Yug- a company involved in the export of indigenous food products like chutneys and pickles. It has tied up with the small farmers in various states for sourcing of fruits and vegetables. In this way it helps the small farmers to sell their produce at reasonable rates. The company follows a practice where only significant deviations from a budget or plan are brought to the attention of management. The degree of deviations allowed in different categories in the budget are well defined in advance, along with the appropriate levels

of management who will respond to the deviations in question. For example, a deviation of Rs.20,000 or more in purchase costs will be reported to the concerned department manager. In context of the above case, identify the principle of management control adopted by the company. State the belief underlying this principle.

9. Rahul has set up an export house after completing his masters in fashion designing. As the quality of the garment depends on the quality of raw material used, he assures that the fabric meets the requirements by conducting a series of tests for the fabrics like shrinkage test, testing colour fastness to washing, colour fastness to light, colour fastness to perspiration etc through laboratory tests. Later on, at the production areas, fabric inspection is also conducted by stopping the production process. The tests help to detect the deviations and also take corrective action. Moreover, he ensures that complete training about production work was given to every worker at the time of joining his export house.

In context of the above case:

- Identify the function of management being performed by Rahul by conducting tests to assure for the quality of the garments manufactured in his export house.
- Briefly explain the term 'deviations.'
- Give any three advantages of giving training to the employees.

10. Why induction is not required in the internal source of recruitment?

4. ECONOMICS

❖ **Easy level:**

- Define: (a) Foreign exchange rate, (b) Flexible exchange rate, (c) Fixed exchange rate, (d) Foreign exchange, (e) Devaluation, (f) Managed Floating, (g) Currency Depreciation, (h) Parity value, (i) Dirty Floating
- Name any two sources of demand of foreign exchange by households in an economy.
- Define: (a) BoP deficit, (b) Autonomous items, (c) Accommodating items, (d) Current A/c Surplus, (e) Balance of Trade
- Giving reasons explain where charity to foreign countries is recorded in the balance of payments accounts.
- Difference between physical and human capital.
- What is the purpose of University Grants Commission (UGC)?
- Why do people need to spend money on health and education?
- What do you mean by 'Golden Revolution'?
- State the meaning of Agricultural Marketing.
- State the meaning of 'Self Help Groups'.

❖ **Medium level:**

- Visits to foreign countries for sightseeing, etc., by the people of India is on the rise. What will be the likely impact on foreign exchange rate and how?
- "Depreciation of currency may promote exports of a nation." Defend or refute the given statement with valid reason
- Explain 3 merits and 3 demerits of fixed exchange rate system.
- "There exists a positive relation between foreign exchange rate and supply of foreign exchange." Do you agree with the given statement? Justify your answer with valid arguments.
- 'Balance of Payment (BoP) is always balanced in the accounting sense.' Defend or refute the given statement with valid reason.
- "Trade Deficit must exist, if a country is facing situation of Current Account Deficit (CAD)." Defend or refute the above-mentioned statement with valid arguments.
- Devaluation and Depreciation of currency is one and the same thing.' Do you agree? How do they affect the exports of a country?
- Why does the demand of foreign currency fall and supply rises when its price rises?
- Education Commission 1964-66 has recommended that at least 6% of GDP must be spent on education. How far India has been able to achieve this said goal?
- Discuss the importance of credit in rural development.

❖ **Hard Level:**

- In recent times the Indian Rupee (₹) depreciated to an all time low against the US dollar (\$). Discuss its impact on India's imports.

- 2) “Foreign Portfolio Investment (FPI) witnessed sharp turnaround during 2023-24 with net FPI inflows of US\$ 32.4 billion.” In which sub-account and on which side of the BoP A/c the above transaction will be recorded? Give reasons in support of your answer.
- 3) Explain how ‘expenditure on information’ and ‘expenditure on migration’ acts as a source of human capital formation.
- 4) Discuss the need for promoting women’s education in India.
- 5) Discuss the need of on-the-job training for an employee.
- 6) Bring out the importance of animal husbandry, fisheries, and horticulture as a source of diversification.
- 7) Jan Dhan Yojna helps in rural development.” Do you agree with this statement? Explain.
- 8) Distinguish between Green Revolution and Golden Revolution.
- 9) Explain 3-3 merits and demerits of Organic Farming.
- 10) How did Horticulture encourage rural development in India?

5. INFORMATICS PRACTICES

Easy level:

1. Meera loves sharing pictures and checking in at locations on social media. She also signs up for many free online contests that ask for her name, email, and phone number. Later, she begins to receive strange advertisements and spam calls.

Questions:

- (i) What type of data trail is Meera creating by using social media and filling online forms?
- (ii) Identify the two types of digital footprints.
- (iii) Suggest one way Meera can protect her online privacy.

2. Rohan was assigned a project on “E-waste Management.” He copied several paragraphs directly from a website and submitted them as his own work. His teacher found the copied text using a plagiarism checker.

Questions:

- (i) What unethical act has Rohan committed?
- (ii) Why is plagiarism a punishable offence?
- (iii) Mention any two ways Rohan can avoid plagiarism in future.

3. Aarav received an email claiming to be from his bank, asking him to verify his account by entering his ATM PIN and OTP through a link. He clicked the link and entered his details. Later, unauthorized transactions were made from his account.

Questions:

- (i) Identify the type of cybercrime Aarav was a victim of.
- (ii) Why should users not click on unknown links?
- (iii) Suggest two preventive measures to avoid such crimes.

4. Neha’s school replaced all old desktop computers with new laptops. The old computers were dumped behind the building. After a few months, toxic smells and dead plants appeared in that area.

Questions:

- (i) What type of waste is generated here?
- (ii) Mention one harmful effect of this waste.
- (iii) Suggest one responsible way the school can manage this waste.

5. Arjun created a fake profile using his classmate’s photo and started posting embarrassing comments. The classmate came to know and reported it to school authorities.

Questions:

- (i) Identify the type of cybercrime Arjun committed.
- (ii) Under which act is this punishable?
- (iii) Suggest two cyber etiquettes Arjun should follow in the future.

Medium level:

6. Priya downloaded a software for free from an unofficial website that promised to unlock “premium” features. Later, her computer began to show virus alerts and data corruption.

Questions:

- (i) What kind of software did Priya install?
- (ii) Mention one risk of using such software.
- (iii) Suggest one safer alternative.

7. Tanvi spends almost 10 hours daily on her laptop attending classes, watching shows, and chatting online. She experiences eye pain, headaches, and disturbed sleep.

Questions:

- Identify two health problems caused by prolonged screen time.
- Name one preventive measure for each problem.
- Suggest any one screen-free hobby she can adopt.

8. Rehan developed a mobile app for farmers to track crop prices. After launch, another developer copied his idea, changed the logo, and started selling it as their own.

- Which law protects Rehan's work?
- Why are Intellectual Property Rights (IPR) important?
- Suggest one action Rehan can take to protect his work in the future.

9. Sneha received repeated rude messages and negative comments from anonymous users on her social media posts. She feels emotionally stressed and scared to use social media.

- What type of cybercrime is Sneha facing?
- Suggest two actions she should take immediately.
- Mention one government law that protects her rights.

10. Kavita's NGO collects broken mobile phones and computer parts from households and sends them to recycling centers. She also conducts workshops on reducing gadget waste.

- Which concept is Kavita promoting?
- List two advantages of proper e-waste management.

Hard Level:

- How can prolonged use of digital devices impact mental health, and what is one way to mitigate these effects?
- List any two health hazards related to excessive use of technology and also give two points for prevention of these health hazards.
- Explain the following: (a) Plagiarism (b) Cyberbullying (c) FOSS
- What are intellectual property rights (IPR), and why are they important in the digital world?
- Mention any four net etiquettes.
- List any one advantage and one disadvantage of using technology.
- Explain any two ways in which technology can help students with disabilities.

6. PHYSICAL EDUCATION

LEVEL-1

- The personality trait associated with creativity, imagination and curiosity is
 - Neuroticism
 - Conscientiousness
 - Openness
 - Agreeableness
- In a knockout fixture, a bye is generally given to
 - Teams without coaches
 - Strongest teams
 - Teams to adjust uneven entries
 - Teams that lost in the previous round
- The main purpose of planning in sports management is
 - To punish players
 - To set objectives and decide actions
 - To provide refreshments
 - To distribute prizes
- Hostile aggression is primarily aimed at
 - Winning a medal
 - Achieving a calm state
 - Causing harm to someone
 - Improving teamwork
- What is Instrumental Aggression?
- Define Big Five Personality Theory.
- State four differences between Seeding and special Seeding knock-out tournament.
- Draw a fixture of 27 team by following Knock-out tournament.

LEVEL-2 (4 MCQs)

- A person who is sociable but still enjoys privacy and quiet time represents
 - Pure extrovert
 - Pure introvert
 - Ambivert
 - Instable personality
- If 10 teams participate in a league (single league), total number of matches will be
 - 25
 - 30
 - 45
 - 90
- In sports tournaments, the "seeding" process ensures
 - Strong teams meet early
 - Strong teams get eliminated

(c) Strong teams remain in separate halves	(d) Weak teams play finals
4. Which Big Five trait is most strongly associated with cooperation and kindness?	
(a) Agreeableness	(b) Neuroticism
	(c) Conscientiousness
	(d) Openness
5. State two differences between League and Knock-out tournaments.	
6. Why is Committee Formation essential in event management?	
7. Explain Hostile Aggression with a sports example.	
8. State two differences between Intramural and Extramural events.	

LEVEL-3 (4 MCQs)

1. A team is considered highly conscientious. Which behaviour best reflects this trait during a tournament?
 - (a) Losing focus after minor setbacks
 - (b) Following scheduled practice sessions strictly
 - (c) Frequent conflict with teammates
 - (d) Taking impulsive on-field decisions
2. If 13 teams participate in a knockout tournament, how many matches are required to determine the winner?
 - (a) 10
 - (b) 11
 - (c) 12
 - (d) 13
3. Instrumental aggression is most likely when a player
 - (a) Pushes an opponent intentionally to stop a goal
 - (b) Shouts out of frustration after losing
 - (c) Breaks a rule to protest
 - (d) Expresses jealousy towards a teammate
4. A league tournament is preferred over knockout when the objective is

(a) Saving time	(b) Eliminating teams quickly
(c) Giving equal opportunity to all teams	(d) Reducing number of rounds
5. Discuss the role of Organising in sports event management with an example.
6. Explain any two types of motivation (intrinsic/extrinsic) with sports examples.
7. Explain with examples how aggression can affect performance positively or negatively.
8. Describe strategies for enhancing adherence to exercise in adults.

7. APPLIED MATHS

LEVEL 1

- 1) A statistician records that on average 1.6 trucks approach a particular intersection every minute. Assuming a Poisson model, what is the probability that 3 or more trucks will approach in one minute?
- 2) Suppose 30% of electric bulbs produced by a company are defective. Using Poisson approximation, find the probability that in a sample of 100 bulbs there will be no defective bulb.
- 3) The mortality rate for a certain disease is 0.007. In a group of 400 people, using a Poisson model, what is the probability of exactly 2 deaths?
- 4) A test score X is normally distributed with mean $\mu = 80$ and standard deviation $\sigma = 10$.
 - (a) What is the probability that a randomly chosen student scores above 90?
 - (b) What score corresponds to the top 5% of students?
- 5) The length of human gestation (in days) is approximated by a normal distribution with mean 266 days and standard deviation 16 days.
 - (a) What proportion of pregnancies will last between 240 and 270 days?
 - (b) What length marks the shortest 70% of all pregnancies?
- 6) A sample of 4 students from a school was taken and the number of pens each student carries was recorded as: 2, 3, 5, 6.
 - (i) What is the point estimate of the population mean?
 - (ii) What is the point estimate of the population standard deviation?
- 7) An endowment fund needs to provide ₹ 60,000 at the **end** of every year forever. If the interest rate is 8% per annum, what is the present value of the fund needed?
- 8) A scholarship fund is set up to pay ₹ 50,000 at the **beginning** of each year indefinitely. If the annual interest rate is 10%, how much must be deposited now to sustain that perpetuity?
- 9) Suppose you have an investment that must yield ₹ 1,00,000 each year forever, starting at the end of the year. The interest rate you can earn is unknown. If you deposit ₹ 25,00,000 now, what interest rate i must you earn (in percent) so that the withdrawal is sustainable forever?
- 10) A company issues a loan of ₹ 10,00,000 that must be repaid in 5 years. The company sets up a sinking fund that earns 6% per annum (compounded annually) so that the full loan amount will be available at the end of 5 years. What annual deposit must be made into the sinking fund?

LEVEL 2

- 11) For a Poisson distribution with mean λ , you are told that $3 P(X = 2) = P(X = 4)$. Find $P(X = 3)$.

12) Suppose the variable Y is normally distributed with mean $\mu = 100$ and standard deviation $\sigma = 15$.

- Find the probability that Y is less than 85.
- Find the probability that Y lies between 100 and 120.
- Find the value y such that $P(Y > y) = 0.10$.

13) In a survey of 611 office-workers, 281 indicated that they are able to take every incoming telephone call (i.e., never need to send a call to voicemail).

- What is the point estimate of the proportion of office-workers who can take every call?
- At 90% confidence level, what is the margin of error?
- What is the 90% confidence interval for the population proportion?

14) For the standard normal distribution $Z \sim N(0,1)$:

- Compute $P(Z > 1.73)$.
- Compute $P(-1.4 < Z < 0)$.

15) A building's refunding cost of ₹ 5,00,000 is due in 20 years. If the company wishes to make equal yearly sinking-fund deposits and the fund earns 4% per annum, what annual deposit must the company make?

16) A company borrows ₹ 6,00,000 for 8 years. It establishes a sinking fund earning 6% per annum so that at the end of 8 years the ₹ 6,00,000 will be available to repay the loan. What is the annual deposit? Also, what is the total amount contributed (excluding interest) and what is the total interest earned by the sinking fund?

17) A manufacturing unit claims a mean lifetime of its light bulbs is 1200 hours. A sample of 30 bulbs shows mean lifetime 1140 hours and standard deviation 120 hours. At the 5% significance level, test whether the mean lifetime is less than 1200 hours. (Use a one-sample t-test.)

18) A book of 614 pages contains 43 typographical errors. If these errors are randomly distributed throughout the book, what is the approximate probability that 10 pages, selected at random, will be free of errors?

19) At a certain workshop, 2% of the books bound are defective. Find the probability that in a batch of 400 books, exactly 5 books will have defective binding.

20) The increase in population of a town (in hundreds) over 8 years is:
20, 22, 25, 30, 35, 40, 45, 50.
Calculate the 5-year moving averages (centre the result if needed) and interpret the result.

LEVEL 3

- The average number of arrivals at a customer-care centre is 4.5 calls every 5 minutes. Assuming Poisson distribution, what is the minimum number of executives needed on duty so that calls are placed on hold for at most 10% of the time?
- A manufacturing process fills jars with weight $X \sim N(\mu, \sigma^2)$. You know that only 2% of jars are under-filled (i.e., weigh less than the labelled amount). If the standard deviation $\sigma = 0.04$, find the mean filling weight that only 2% are under the label.
- A sample of 16 students has a mean score of 72 and a sample standard deviation of 8. Test at the 5% significance level whether the population mean score is 70, given that the population standard deviation is unknown.
- A coach claims the average time to run 100 m for his athletes is 11.5 s. A sample of 25 athletes has an average 11.9 s and standard deviation 0.8 s. Test the coach's claim at the 5% level of significance. Should the claim be rejected?
- Monthly production (in thousand units) of a factory over 12 months:

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Production	120	130	115	140	150	145	160	155	165	170	175	180

- Calculate the 4-monthly moving averages.
- Plot the moving averages and comment on whether production is increasing.

- A manufacturing company wants to estimate future demand of their product. They have demand data for last 8 years: 90, 95, 100, 105, 110, 115, 120, 125 (for $x = 1$ to 8).
 - Fit a least-squares line $= a + b x$.
 - Calculate the demand forecast for year $x = 10$.
 - Suppose next actual demand (for year $x = 9$) turns out 130, compare with forecast and comment on accuracy.
- A loan of ₹ 9,00,000 is to be redeemed in 10 years. The sinking fund available earns 5% per annum.
 - Compute the annual sinking-fund payment.
 - If the company deposited only ₹ 80,000 per annum, how much will the fund fall short by at the end of 10 years?
- A home-loan of ₹ 30,00,000 at 7% p.a. interest has been set for 15 years (180 months). After 5 years (60 months) you switch to a floating interest rate of 8% for the remaining period. Compute the original EMI and compare what happens if the rate had been 8% from the start.
- An EMI of ₹ 12,500 is being paid for a loan of ₹ 5,00,000 at 10% p.a. interest. Determine how many months are required to pay off the loan (i.e., find n).
- A loan of ₹ 4,00,000 is taken for repayment in 10 years (120 months). After 2 years (24 months) you decide to pre-pay some amount and reduce the remaining tenure to 8 years (96 months) at the same rate of 9% p.a. What was the original EMI and what would be the new EMI?

8. MARKETING

PART – A:

SIMPLE LEVEL (10 Questions)

1. Define Promotion.
2. What is Print Media? Give one example.
3. Name any two elements of the Promotion Mix.
4. What is Online Media?
5. Give one advantage of Electronic Media.
6. What is meant by Green Jobs?
7. Name any one variety of Green Job.
8. Write one benefit of Green Jobs.
9. What is meant by Sales Promotion?
10. Mention any one disadvantage of Print Media.

PART – B:

MODERATE LEVEL (10 Questions)

1. State any two importance of Promotion.
2. Explain the role of communication in Promotion.
3. Differentiate between Above-the-line and Below-the-line promotion. (Any two points)
4. Give two disadvantages of Online Media.
5. Explain Yellow Pages with one advantage.
6. What are Visual Media advertisements? Give one example.
7. What is the role of Green Jobs in minimizing waste and pollution? (2 points)
8. Explain how Green Jobs support eco-tourism.
9. State any two factors affecting the selection of Promotion Mix.
10. Mention any two roles of Green Jobs in toxin-free homes.

PART – C:

HARD LEVEL (10 Questions)

1. Explain the advantages and disadvantages of Electronic Media (Any 2 each).
2. Describe the different modes of advertisement with suitable examples.
3. How does Promotion help in building brand loyalty? (Explain in detail)
4. Analyssze the importance of Promotion Mix for a new product launch.
5. Discuss the impact of Online Media on modern marketing strategies.
6. Explain the role of Green Jobs in improving energy and raw material use.
7. How do Green Jobs help in limiting greenhouse gas emissions? (Explain with examples)
8. Describe the contribution of Green Jobs in Solid Waste Management.
9. Write a detailed note on the importance of Green Jobs in the present scenario.
10. Discuss the role of Green Jobs in protecting and restoring ecosystems.