

SHREE VASISHTHA VIDHYALAYA

(English Medium, CBSE affiliated, Member-NPSC, Recipient-International School Award)

PA-III Assignment: 2026 27

Class-XI Commerce

DATE OF SUBMISSION: 22-10-2026 (Thursday)

1.	ENGLISH CORE
	Level 1: Easy 1. Name the author of <i>The Adventure</i>. 2. On which train, and between which two cities, does Professor Gaitonde travel? 3. Which is the first stop of the train after it leaves Pune? 4. Who is the poet of <i>Childhood</i>? 5. What does the poet keep asking about his childhood? 6. According to the poet, where can childhood still be found? 7. Rearrange the words to form a meaningful sentence: a / our / organised / road-safety / rally / school 8. Fill in the blank: In the history Professor Gaitonde knows, the East India Company was _____ after 1857. 9. Name any four things a good poster must contain. 10. Which battle, won by the Marathas, changed the course of history in the story? Level 2: Intermediate 11. Why does Professor Gaitonde decide to go to a big library in Bombay? 12. Mention two differences between the Jijamata Express journey and the Pune–Bombay journey the professor knew. (30–40 words) 13. How did the Maratha victory at Panipat affect the East India Company? (30–40 words) 14. What does the poet realise when he finds that Hell and Heaven cannot be located in Geography? What does this show about growing up? (30–40 words) 15. Why does the poet ask the same question about his childhood again and again? What does it suggest about the way we grow up? (30–40 words) 16. Rearrange the words to form a meaningful sentence: unless / we / conserve / water / the / shortage / will / worsen 17. Your school is organising a Book Fair from 20 to 22 November 2026. As the Library Secretary, draft a notice in not more than 50 words. 18. Design a poster in not more than 50 words for a 'Say No to Plastic' campaign in your school. Include a slogan, two tips, and the organiser's name. 19. Describe in 40–50 words how Professor Gaitonde's feelings change from the time he reaches Bombay to the time he finishes reading in the library. 20. Is childhood completely lost, according to the poem? Explain in 40–50 words with reference to the poem. Level 3: Advanced 21. Rearrange the words to form a meaningful sentence: not / only / did / the / professor / lose / his / way / but / he / also / lost / his / certainty / about / history 22. Rearrange the words to form a meaningful sentence: hardly / had / the / speaker / finished / when / the / audience / broke / into / applause 23. Rearrange the words to form a meaningful sentence: had / he / not / been / rushed / to / hospital / he / would / not / have / survived 24. "<i>The Adventure</i> shows that history is shaped more by chance than by choice." Do you agree? Support your answer with evidence from the story. (100–120 words) 25. Compare Professor Gaitonde's attitude towards the India he sees at the beginning of the story with his attitude at the end. What causes the change? (100–120 words) 26. Is the poet's attitude in <i>Childhood</i> nostalgic, critical of the adult world, or both? Justify your answer with reference to the poem. (100–120 words) 27. Both <i>The Adventure</i> and <i>Childhood</i> deal with a movement from the familiar to the unfamiliar.

	Discuss how each lesson presents this idea. (100–120 words) 28. A heavy downpour has flooded the main road near your school, and several vehicles have stalled. As a reporter for a local daily, write a news report in 100–120 words. Include a headline, byline, an eyewitness quote and the measures being demanded by residents. 29. Design a poster in not more than 50 words to spread awareness among parents and students about online fraud. Include a slogan, two precautions, the date and venue of an awareness session, and the organiser's name. 30. Due to a sudden state-wide holiday, your school has to postpone the Periodic Test III scheduled for 14 October 2026. As the Examination In-charge, draft a notice in not more than 50 words informing students and parents, and stating the revised date will be announced soon.
2.	ACCOUNTANCY SECTION A — ONE-WORD / OBJECTIVE / MCQ Q1. Depreciation refers to: (a) Increase in value of an asset (b) Allocation of depreciable cost over useful life (c) Withdrawal of cash (d) Purchase of an asset Q2. Which of the following is generally not depreciated? (a) Machinery (b) Furniture (c) Freehold land (d) Motor vehicle Q3. Under the straight line method, the annual depreciation amount is generally: (a) Constant (b) Increasing (c) Decreasing (d) Zero Q4. The amount expected to be realised on disposal of an asset at the end of its useful life is called _____. Q5. Cost of an asset less accumulated depreciation is its _____ value. Q6. A provision is created by charging it against: (a) Capital (b) Profit (c) Drawings (d) Sales Q7. A reserve is generally an appropriation of: (a) Profit (b) Loss (c) Liability (d) Expense Q8. Writing off the cost of an intangible asset over its useful life is termed _____. SECTION B — SHORT-ANSWER QUESTIONS Q9. Define depreciation and state any two causes of depreciation. Q10. State two objectives of providing depreciation in the books of account. Q11. Distinguish between straight line method and written down value method on any three bases. Q12. What is a provision? Give two examples. Q13. State any three differences between a provision and a reserve. SECTION C — COMPREHENSIVE / NUMERICAL QUESTIONS Q14. A machine was purchased on 1 April 2024 for ₹80,000. Installation charges were ₹5,000 and its estimated scrap value after five years is ₹10,000. Calculate annual depreciation under the straight line method and the book value on 31 March 2026. Q15. On 1 April 2023, a firm purchased furniture for ₹60,000. Depreciation is charged at 10% per annum by the written down value method. Calculate depreciation and closing book value for the years ended 31 March 2024, 2025 and 2026. Q16. A business purchased machinery for ₹50,000 on 1 April 2022. Depreciation is provided at 10% per annum by the straight line method. The machinery was sold on 31 March 2025 for ₹32,000. Calculate accumulated depreciation and profit or loss on sale. Q17. On 1 April 2024, Sunrise Traders purchased a machine for ₹1,00,000. Depreciation is charged at 10% per annum under the straight-line method. Prepare the Machinery Account for the two years ended 31 March 2025 and 31 March 2026. Q18. A vehicle costing ₹2,40,000 was acquired on 1 October 2024. Depreciation is charged at 15% per annum on original cost and accounts close on 31 March each year. Calculate depreciation for the first two accounting years and the book value on 31 March 2026. Q19. A machine cost ₹1,50,000, including installation charges of ₹10,000. Its residual value after seven years is estimated at ₹10,000. Calculate the annual straight-line depreciation, the rate of depreciation on original cost, and the book value after four complete years. Q20. A business purchased equipment for ₹90,000 on 1 April 2023. Depreciation is charged at 20% per annum by the written down value method. Prepare a Machinery A/c up to 31 March 2026. MEDIUM LEVEL SECTION A — ONE-WORD / OBJECTIVE / MCQ Q1. Depreciation should be charged even when the business incurs a loss. (True/False)

- Q2.** The depreciable amount under the straight-line method equals: (a) Cost + residual value (b) Cost – residual value (c) Sales-cost (d) Cost + accumulated depreciation
- Q3.** Under which method does annual depreciation generally decline when the rate is constant?
- Q4.** Which account is credited when depreciation is recorded using the provision for depreciation method? (a) Asset A/c (b) Provision for Depreciation A/c (c) Sales A/c (d) Capital A/c
- Q5.** A reserve created for a specified purpose is called a _____ reserve.
- Q6.** A provision for doubtful debts is shown as: (a) Addition to debtors (b) Deduction from debtors (c) Addition to cash (d) Deduction from capital
- Q7.** State whether the assertion and reason are correct: Assertion: A general reserve is not a charge against profit. Reason: It is an appropriation of profit.
- Q8.** On an asset costing ₹40,000, depreciated at 10% p.a. on written down value, the depreciation for the second full year is: (a) ₹4,000 (b) ₹3,600 (c) ₹400 (d) ₹7,600.

SECTION B — SHORT-ANSWER QUESTIONS

- Q9.** Explain why depreciation is provided even if an asset's market value has increased.
- Q10.** Differentiate between the asset account method and the provision for depreciation account method of recording depreciation.
- Q11.** Explain how the sale of a depreciable asset is recorded using an Asset Disposal Account.
- Q12.** Distinguish between general reserve and specific reserve, giving one example of each.
- Q13.** Explain the treatment of provision for doubtful debts and reserve for future expansion in the financial statements.

SECTION C — COMPREHENSIVE / NUMERICAL QUESTIONS

- Q14.** On 1 April 2023, Meera Traders purchased a machine for ₹1,20,000. Another machine costing ₹60,000 was purchased on 1 October 2023. Depreciation is charged at 10% per annum by the straight-line method and accounts close on 31 March. Prepare the Machinery Account for the years ended 31 March 2024 and 2025, using the direct credit method.
- Q15.** A firm bought a machine for ₹90,000 on 1 April 2022. Depreciation is charged at 20% per annum under the written down value method. The machine was sold on 31 March 2025 for ₹42,000. Calculate depreciation for each year, the book value at sale and profit or loss on disposal.
- Q16.** On 1 April 2024, the Machinery Account showed ₹2,00,000 and the Provision for Depreciation Account ₹50,000. No additions or disposals took place during the year. Depreciation is charged at 10% per annum on original cost. Prepare the Machinery Account and Provision for Depreciation Account for the year ended 31 March 2025.
- Q17.** On 1 April 2023, a firm purchased machinery costing ₹1,60,000. On 1 January 2024, it purchased an additional machine for ₹80,000. Depreciation is charged at 15% per annum by the written down value method. Prepare the Machinery Account for the years ended 31 March 2024 and 2025.
- Q18.** A machine purchased on 1 July 2022 cost ₹1,05,000, including freight and installation. Its residual value is ₹5,000 after ten years. Using straight line depreciation, calculate the depreciation for the years ended 31 March 2023, 2024 and 2025 and the book value on 31 March 2025.
- Q19.** On 1 April 2022, a machine was purchased for ₹75,000. It was sold on 1 October 2024 for ₹48,000. Depreciation is provided at 10% per annum on original cost, and books close on 31 March. Prepare the Machinery Account for the years ended 31 March 2023, 2024 and 2025.
- Q20.** An asset costing ₹1,20,000 is depreciated at 10% per annum on the written down value method. Calculate the depreciation for the first three full years. Compare the total depreciation and closing book value with those under a straight-line method at 10% per annum on original cost for the same period.

HARD LEVEL

SECTION A — ONE-WORD / OBJECTIVE / MCQ

- Q1.** A machine is purchased during the year. Under straight line method, depreciation for the first accounting year depends on the _____ the machine was used.
- Q2.** Which of these is a charge against profit? (a) General reserve (b) Provision for doubtful debts (c) Capital reserve (d) Dividend equalisation reserve
- Q3.** When a machine is sold, the balance in its Disposal Account represents _____ or _____.
- Q4.** A reserve arising from capital profits is known as a _____ reserve.

- Q5.** Assertion: An asset may have a positive market value even when its book value is nil.
Reason: Book value is based on historical cost less accumulated depreciation. State whether both are true and whether the reason explains the assertion.
- Q6.** An asset costing ₹1,00,000 is depreciated at 20% per annum on written down value. Its closing book value after two full years is: (a) ₹60,000 (b) ₹64,000 (c) ₹80,000 (d) ₹40,000.
- Q7.** Creation of a specific reserve guarantees that cash is separately kept aside. (True/False)
- Q8.** If the existing provision for doubtful debts exceeds the provision newly required, the difference is _____ to the Statement of Profit and Loss.

SECTION B — SHORT-ANSWER QUESTIONS

- Q9.** Explain why straight line and written down value methods result in different patterns of depreciation expense and carrying value.
- Q10.** Distinguish between revenue reserve and capital reserve, and explain any limitations on using a capital reserve for dividend distribution.
- Q11.** Explain, with entries, how an asset sold part-way through an accounting year is removed from the books where a Provision for Depreciation Account is maintained.
- Q12.** Why is it incorrect to describe every reserve as a provision? Support your answer with two accounting examples.
- Q13.** Discuss the effect on profit and asset values if depreciation is omitted for two consecutive years.

SECTION C — COMPREHENSIVE / NUMERICAL QUESTIONS

- Q14.** On 1 April 2022, Kiran Industries purchased machinery for ₹2,40,000. A second machine costing ₹1,20,000 was installed on 1 October 2023. On 1 October 2024, the first machine was sold for ₹1,25,000. Depreciation is charged at 10% per annum under the straight line method. Prepare the Machinery Account for the years ended 31 March 2023, 2024 and 2025.
- Q15.** On 1 April 2024, Plant and Machinery Account had a debit balance of ₹8,00,000 and Provision for Depreciation Account a credit balance of ₹2,40,000. Included in the machinery was an item purchased on 1 April 2021 for ₹2,00,000, which was sold on 1 October 2024 for ₹95,000. Depreciation is charged at 10% per annum on original cost. Prepare Plant and Machinery Account, Provision for Depreciation Account and Machinery Disposal Account for the year ended 31 March 2025.
- Q16.** On 1 July 2022, Rohan & Co. purchased machinery for ₹1,50,000 and paid ₹10,000 for installation. On 1 January 2023, additional machinery costing ₹80,000 was purchased. On 1 April 2024, one-fourth of the machinery purchased on 1 July 2022 became obsolete and was sold for ₹25,000. Depreciation is charged at 10% per annum on written down value and books close on 31 March. Prepare Machinery Account for the years ended 31 March 2023, 2024 and 2025.
- Q17.** On 1 April 2023, a business purchased Machine A for ₹3,00,000 and Machine B for ₹2,00,000. Machine A was sold on 30 September 2025 for ₹1,70,000 and a new Machine C was purchased on 1 January 2026 for ₹1,50,000. Depreciation is charged at 20% per annum on written down value. Prepare Machinery Account for the years ended 31 March 2024, 2025 and 2026.
- Q18.** On 1 April 2024, Machinery Account showed ₹6,00,000 and Provision for Depreciation Account ₹1,80,000. A machine purchased on 1 April 2022 for ₹1,50,000 was sold on 1 January 2025 for ₹88,000. Another machine costing ₹2,00,000 was purchased on 1 October 2024. Depreciation is charged at 10% per annum on original cost. Prepare Machinery Account, Provision for Depreciation Account and Machinery Disposal Account for the year ended 31 March 2025.
- Q19.** A company purchased machinery on 1 October 2022 for ₹4,00,000 and incurred ₹40,000 on installation. On 1 July 2023 it purchased another machine for ₹1,60,000. On 1 October 2025 it sold the first machine for ₹2,20,000. Depreciation is charged at 15% per annum under the written down value method, with the financial year ending on 31 March. Prepare the Machinery Account for the years ended 31 March 2023 to 2026.
- Q20.** On 1 April 2023, a firm purchased a machine for ₹2,50,000 with estimated residual value ₹10,000 and useful life of eight years. On 1 October 2025 it sold the machine for ₹1,65,000. Calculate annual depreciation and gain or loss on disposal under the straight-line method. Separately calculate the book value on the disposal date and gain or loss if depreciation had instead been charged at 15% per annum on written down value. Assume books close on 31 March.

3. BUSINESS STUDIES

Level 1 – Easy

10 questions

Section A – 3 marks each

Q1. What is social responsibility of business? State any two arguments in favour of social responsibility. (3)

Q2. Explain any three responsibilities of a business towards its employees. (3)

Q3. What is business finance? Why is it required by a business enterprise? (3)

Q4. Define retained earnings. State any two advantages of retained earnings as a source of finance. (3)

Section B – 4 marks each

Q5. Explain any four responsibilities of business towards consumers. (4)

Q6. Differentiate between owners' funds and borrowed funds on any four bases. (4)

Q7. Explain any four factors that influence the choice of a source of business finance. (4)

Section C – 6 marks each

Q8. Explain any six responsibilities of business towards society and the community. (6)

Q9. Explain the meaning of business ethics and discuss any five elements of business ethics. (6)

Q10. Explain any six sources of business finance available to a business enterprise. (6)

Level 2 – Medium

10 questions

Section A – 3 marks each

Q11. Explain any three arguments against the social responsibility of business. (3)

Q12. Differentiate between equity shares and preference shares on any three bases. (3)

Q13. State any three differences between trade credit and bank credit. (3)

Section B – 4 marks each

Q14. Explain any four responsibilities of business towards the government. (4)

Q15. Distinguish between public deposits and retained earnings on any four bases. (4)

Q16. Explain any four merits of equity shares as a source of finance. (4)

Q17. Explain any four ways in which a business organisation can protect the environment. (4)

Section C – 6 marks each

Q18. Case Study – Social Responsibilities

Sunrise Chemicals Ltd. manufactures industrial cleaning products. The company releases untreated waste into a nearby river, provides inadequate safety equipment to workers and makes misleading claims about the quality of its products. Local residents complain about pollution, and customers begin losing trust in the company.

Answer the following:

a. Identify any two stakeholders towards whom the company has failed to fulfil its social responsibilities. (2)

b. Explain four measures the company should adopt to fulfil its social responsibilities. (4)

Q19. Explain any six merits of debentures as a source of finance for a company. (6)

Q20. Explain any six factors that should be considered while selecting an appropriate source of business finance. (6)

Level 3 – Difficult

10 questions

Section A – 3 marks each

Q21. Why is social responsibility considered important for the long-term survival of a business? Explain any three reasons. (3)

Q22. A company wants to raise funds without diluting the ownership rights of its existing shareholders. Suggest a suitable source of finance and give two reasons for your recommendation. (3)

Q23. Explain any three limitations of retained earnings as a source of business finance. (3)

Section B – 4 marks each

Q24. A business enterprise earns high profits but ignores pollution control, employee safety and consumer complaints. Explain four possible consequences of such irresponsible behaviour. (4)

Q25. Differentiate between equity shares and debentures on any four bases. (4)

Q26. A company needs funds for expansion but is uncertain about its future earnings. Explain four factors it should consider before deciding between equity shares and debentures. (4)

Q27. Explain any four ethical practices that a business should follow while dealing with its employees, consumers and competitors. (4)

Section C – 6 marks each

Q28. Case Study – Business Ethics

A food-processing company advertises its products as completely natural, although it uses artificial additives. It also pressures employees to work overtime without proper compensation and offers gifts to purchasing officers to secure contracts.

Answer the following:

- a. Identify two unethical practices followed by the company. (2)
- b. Explain four measures the company should adopt to establish ethical business practices. (4)

Q29. Case Study – Sources of Business Finance

A manufacturing company plans to purchase modern machinery and expand its production capacity. It is considering equity shares, debentures, retained earnings and bank loans. The company wants to maintain control over management, avoid excessive financial risk and arrange funds for long-term use.

Answer the following:

- a. Identify any two suitable sources of long-term finance from the options given. (2)
- b. Explain four factors the company should consider before making its final choice. (4)

Q30. A company needs additional finance to expand its operations. It is considering equity shares, debentures and retained earnings. Compare these three sources of finance with reference to ownership and control, cost, financial risk and suitability. (6)

4. ECONOMICS

1. Define fixed cost and variable cost. Give two examples of each.
2. Differentiate between explicit costs and implicit costs with suitable examples.
3. What is the relationship between Total Cost (TC), Total Fixed Cost (TFC), and Total Variable Cost (TVC)?
4. Why does Total Fixed Cost remain constant at different levels of output in the short run?
5. Explain the relationship between Average Cost (AC), Average Fixed Cost (AFC), and Average Variable Cost (AVC).
6. Why does the Average Fixed Cost curve continuously decline as output increases?
7. Explain the relationship between Marginal Cost (MC) and Average Cost (AC).
8. Complete the following table:

Output (units) TFC (₹) TVC (₹) TC (₹)

0	100	0	?
1	100	60	?
2	100	100	?
3	100	150	?
4	100	220	?

9. Calculate the Average Cost and Marginal Cost from the following data:

Output (units) Total Cost (₹)

0	50
1	90
2	120
3	165
4	230

10. A firm produces 10 units of output at a total cost of ₹500. Its total fixed cost is ₹100. Calculate:

- (a) Total Variable Cost
- (b) Average Fixed Cost
- (c) Average Variable Cost
- (d) Average Cost

Section B: Chapter 9 – Median and Mode

Questions 11–20

11. Define median. Explain how it differs from arithmetic mean.
12. What is mode? Explain its importance as a measure of central tendency.
13. State the steps involved in calculating the median for an individual series.
14. Explain how the median is calculated for a continuous frequency distribution.
15. What are the advantages and limitations of median as a measure of central tendency?
16. Calculate the median of the following observations:

12, 18, 7, 15, 21, 10, 14

17. Calculate the median from the following frequency distribution:

Value (X) Frequency (f)

10	3
20	5
30	8
40	6
50	3

18. Calculate the mode from the following discrete frequency distribution:

Marks Number of Students

10	4
20	7
30	12
40	9
50	5

19. Calculate the median of the following continuous frequency distribution:

Class Interval Frequency

0–10	5
10–20	9
20–30	12
30–40	8
40–50	6

20. The median of a distribution is 25 and its mode is 22. Using the empirical relationship between mean, median, and mode, calculate the arithmetic mean.

Section C: Chapter 10 – Market Forms

Questions 21–30

21. What is a market in economics? Explain the meaning of market structure.

22. Define perfect competition. State any four features of a perfectly competitive market.

23. Explain why a firm under perfect competition is called a price taker.

24. What is monopoly? Explain any four features of a monopoly market.

25. Differentiate between perfect competition and monopoly on the basis of:

- (a) Number of sellers
- (b) Nature of the product
- (c) Entry and exit of firms
- (d) Control over price

26. Explain the meaning of monopolistic competition. How does product differentiation distinguish it from perfect competition?

27. What is an oligopoly? Explain any three important features of an oligopolistic market.

28. Identify the market form in each of the following situations and justify your answer:

- (a) A large number of sellers sell identical agricultural products.
- (b) A single firm supplies a product with no close substitutes.
- (c) A few large firms dominate the automobile industry.
- (d) Many restaurants compete by offering differentiated services and menus.

29. Differentiate between monopolistic competition and oligopoly on the basis of the number of firms, interdependence, and product differentiation.

	30. Application-based question: A firm operates in a market where there are many sellers, products are homogeneous, buyers and sellers have perfect knowledge, and firms can freely enter or leave the industry. Identify the market form and explain how these characteristics influence the firm's pricing decisions.
5.	INFORMATICS PRACTICES
	1. Define a database and a DBMS. Give one example of a DBMS. 2. Write any two advantages of using a DBMS. 3. Differentiate between data and information. 4. Differentiate between a record and a field. 5. What is a primary key? State any two properties. 6. Differentiate between a primary key and a foreign key. 7. Differentiate between primary key and alternate key. 8. What are the advantages of DMBS? 9. Differentiate between data and information. 10. What is a candidate key? Give an example. 11. b = "Computer Science and Technology" a = list(b) Predict the output of the following statements: a. print(a) b. print(len(a)) c. print(a[2:9]) d. print(a[:8]) e. print(a[4:14:2]) f. print(a[-1:-8:-1]) g. print(a[::4]) h. print(a[-2:-12:-2]) i. print(a[9:22]) j. print(a[14:4:-1]) k. print(a[-7:]) l. print(a[:-4]) m. print(a[3:-3]) n. print(a[:: -1]) o. print(a[1:20:3]) 12. Given the following list: python L4 = [100, 200, ["Sun", "Moon"], 300, 400, ["Star", "Sky"], 500] Predict the output of the following statements: (a) L4[-1] (b) L4[2:7:2] (c) L4[2][1] (d) L4[2][0][0:2] (e) L4[5][0] (f) L4[0:5:2] 13. Given the following list: python L5 = [11, 22, ["Laptop", "Mouse"], 33, 44, ["Keyboard", "Monitor"], 55, 66] Predict the output of the following statements: (a) L5[-2] (b) L5[2:7:2]

	(c) L5[2][0] (d) L5[2][0][2:5] (e) L5[5][1] (f) L5[1:8:3] 14. WAPP to find the number of occurrences of each character present in the city inputted by the user. 15. WAPP to find the number of occurrences of each character present in the fruit name inputted by the user. 16. Write the program to input a name of an employees and their salaries detailed like basic salary house rent and convenience allowance. Calculate the total salary of each employee and display it. 17. Write a program to input and names and phone numbers to store in a dictionary and print the phone numbers of the particular name. 18. Write a function to convert a number entered by the user into the corresponding number in words. For example if the input is 985, then the output should be "Nine Eight Five". 19. Dictionary Operations Find the output of the following statements: (a) print(stateCapital.get("Goa")) (b) print(stateCapital.keys()) (c) print(stateCapital.values()) (d) print(stateCapital.items()) (e) print(len(stateCapital)) (f) print("gujarat" in stateCapital) (g) print(stateCapital.get("Punjab")) (h) del stateCapital["Kerala"] print(stateCapital) 20. Consider the following dictionary: fruit = {"Apple": 100, "Banana": 40, "Mango": 80, "Orange": 60} Find the output of the following statements: (a) print(fruit.get("Mango")) (b) print(fruit.keys()) (c) print(fruit.values()) (d) print(fruit.items()) (e) print(len(fruit)) (f) print("Grapes" in fruit) (g) print(fruit.get("Apple")) (h) del fruit["Banana"] print(fruit)
6.	PHYSICAL EDUCATION
	Level 1: Easy Questions 1 mark each Basic concepts and definitions 1. Define physical fitness. 2. What is meant by wellness? 3. Define sports training. 4. What is doping in sports? 5. What is the meaning of training load? 6. Name any two components of physical fitness. 7. What is warming-up?

8. What is adaptation in sports training?
9. Write the full form of PRICE in first aid.
10. What is meant by recovery in sports training?
11. State one disadvantage of doping.
12. Name any two qualities of a good sports leader.

Level 2: Intermediate Questions

2–3 marks each | Understanding and application

13. Differentiate between health and wellness.
14. Explain any three principles of sports training.
15. Differentiate between health-related and skill-related components of physical fitness.
16. Explain the importance of recovery after strenuous exercise.
17. Describe any three dimensions of wellness.
18. Differentiate between warming-up and limbering down.
19. Explain any three disadvantages of doping in sports.
20. How do traditional Indian games promote physical fitness and social well-being?
21. Differentiate between skill and technique with suitable examples.
22. Explain the relationship between overload, adaptation, and recovery.
23. Describe any three qualities of effective leadership in sports.
24. Explain the importance of regular physical activity in maintaining a healthy lifestyle.

Level 3: Advanced Questions

5 marks each | Analysis, detailed answers and case studies

25. Explain the relationship between physical fitness, health, and wellness. Discuss how regular sports participation contributes to all three.
26. Discuss the major principles of sports training. Explain how a coach can apply these principles while preparing an athlete for competition.
27. Differentiate between health-related and skill-related fitness components. Explain their importance in improving overall physical fitness and sports performance.
28. Explain training load, overload, adaptation, and recovery. How can improper management of these factors affect an athlete's performance?
29. Discuss the importance of warming-up and limbering down. Explain their role in preparing the body for physical activity and supporting recovery.
30. Explain doping in sports and discuss its harmful effects on an athlete's physical health, mental well-being, career, and sporting ethics.
31. A Class 11 student spends long hours studying, sleeps irregularly, and rarely exercises. The student also feels tired during sports practice. Identify the possible problems and suggest five measures to improve physical fitness and wellness.
32. A football player increases training intensity suddenly and skips recovery sessions. After a few days, the player experiences fatigue and reduced performance. Analyse the situation using the principles of overload, adaptation, and recovery, and suggest suitable corrective measures.
33. Explain how traditional and regional games can promote physical fitness, leadership, teamwork, and social wellness among school students.
34. A young athlete is advised by a friend to take a performance-enhancing substance to improve competition results. Explain why this decision is harmful and suggest ethical ways to improve performance through proper training and recovery.
35. Explain the role of physical education teachers and coaches in promoting wellness, preventing doping, and developing responsible sporting behaviour among students.
36. **Case study:** A school organises a fitness programme involving running, yoga, traditional games, and team sports. One student follows a regular training schedule, while another trains excessively, ignores rest, and considers using prohibited substances to improve performance.

Answer the following:

- (a) Identify two benefits of the school fitness programme for wellness.
 (b) Explain why recovery is important for the student who trains excessively.
 (c) State two disadvantages of doping.
 (d) Suggest two measures that can help students improve performance safely and ethically.

7. APPLIED MATHS

Find the derivative of $f(x) = x^3$ using the first principle.

Find the positive integer “n” so that $\lim_{x \rightarrow 3} [(x^n - 3^n)/(x - 3)] = 108$.

Level 1 : Basic Differentiation

Find $\frac{dy}{dx}$ for each function.

1. $y = x^5$

2. $y = 3x^4 + 2x^2 - 7$

3. $y = 5x^3 - 4x + 9$

4. $y = \sqrt{x}$

5. $y = \frac{1}{x^3}$

Find the differentiation of above by using first principle

Level 2: Intermediate Questions

Find dy/dx

$y = x^2(x^3 + 4)$

$y = (x^2 + 1)(x^3 - 2)$

$y = \frac{x^2 + 1}{x^2}$

$y = \frac{x^2}{x + 1}$

Level 3: Advanced Questions

1. If $y \log x = x - y$, prove that $\frac{dy}{dx} = \frac{\log x}{(1 + \log x)^2}$.

2. If $y = \sqrt{x} + \frac{1}{\sqrt{x}}$, prove that $2x \frac{dy}{dx} + y = 2\sqrt{x}$.

3. Determine the value of ‘k’ for which the following function is continuous at $x = 3$:

(All India 2017)

$$f(x) = \begin{cases} \frac{(x + 3)^2 - 36}{x - 3}, & x \neq 3 \\ k, & x = 3 \end{cases}$$

4. If a function $f : \mathbb{R} \rightarrow \mathbb{R}$ be defined by

$$f(x) = \begin{cases} 3x - 2, & x < 0; \\ 1, & x = 0; \\ 4x + 1, & x > 0 \end{cases}$$

Find : $f(1)$, $f(-1)$, $f(0)$, $f(2)$

5. Let $X = \{1, 2, 3, 4\}$ and $Y = \{1, 5, 9, 11, 15, 16\}$

Determine which of the following sets are functions from X to Y

(a) $f_1 = \{(1, 1), (2, 11), (3, 1), (4, 15)\}$

$$(b) f_2 = \{(1, 1), (2, 7), (3, 5)\}$$

$$(c) f_3 = \{(1, 5), (2, 9), (3, 1), (4, 5), (2, 11)\}$$

6. If $f(x) = \frac{1}{2x+1}$, $x \neq -\frac{1}{2}$, then show that

$$f(f(x)) = \frac{2x+1}{2x+3}, \text{ provided that } x \neq -\frac{3}{2}.$$

7. Let f be defined by $f(x) = x - 4$ and g be defined by

$$g(x) = \begin{cases} \frac{x^2 - 16}{x + 4}, & x \neq -4 \\ \lambda, & x = -4 \end{cases}$$

Find λ such that $f(x) = g(x)$ for all x .

8. Evaluate: $\lim_{x \rightarrow 1} \left(\frac{1}{x^2 + x - 2} - \frac{x}{x^3 - 1} \right)$.

9. $\lim_{x \rightarrow 1/4} \frac{4x - 1}{2\sqrt{x} - 1}$

10. $\lim_{x \rightarrow 1} \frac{x^4 - 3x^3 + 2}{x^3 - 5x^2 + 3x + 1}$

11. If $f(x) = x^2 - 3x + 4$, then find the values of x satisfying the equation $f(x) = f(2x + 1)$.

12. If $f(x) = \frac{x+1}{x-1}$, show that $f[f\{f(x)\}] = x$.

8. MARKETING

Level 1: Easy

- Q1.** A school coordinator needs to prepare a circular, maintain consistent paragraph formatting and later share the document in an editable form. Which capability is most directly associated with a word processor?
- A. Creating and formatting text documents B. Managing only computer hardware
C. Establishing network cables D. Removing malware
- Q2.** A student wants to move a paragraph from one location to another without retyping it. Which sequence is most suitable?
- A. Copy $\rightarrow$ Print B. Cut $\rightarrow$ Paste
C. Save $\rightarrow$ Close D. Undo $\rightarrow$ Print
- Q3.** A report needs a clear division between its title, subheadings and body text. Which feature is most useful for applying a structured, reusable appearance?
- A. Status bar B. Zoom slider
C. Styles D. Close command
- Q4.** A learner has inserted a picture in a report but it appears in the wrong place. Which action best addresses the issue?
- A. Delete the whole document B. Reposition the inserted picture
C. Change the operating system D. Disable spell check
- Q5.** A teacher wants to present a comparison of five product prices in rows and columns rather than as continuous prose. Which tool should be used?
- A. Insert Table B. Find C. Word Count D. AutoCorrect
- Q6.** Which interface element typically provides information such as page number and word count while a document is being edited?
- A. Menu bar B. Status bar C. Document title D. Ruler
- Q7.** A document must be printed only after checking the number of copies and page range. Which command opens the relevant settings?
- A. Insert B. Replace C. Print D. Format Painter

- Q8.** A business treats product design, price, distribution and communication as connected decisions rather than unrelated tasks. Which marketing-mix characteristic does this demonstrate?
- A. Interdependence
B. Rigidity
C. Randomness
D. Exclusivity
- Q9.** A company first studies a defined group of potential buyers before deciding product features. Which stage of marketing-mix development comes first?
- A. Monitor the mix
B. Define the target market
C. Choose promotional media
D. Select retailers
- Q10.** A seller introduces an innovative product at a high initial price to appeal to buyers willing to pay more. Which textbook pricing strategy is closest?
- A. Geographic pricing
B. Market penetration pricing
C. Market skimming pricing
D. Discount coupon pricing
- Q11.** A premium watch brand authorises only a very small number of retailers to sell its products. Which channel strategy is indicated?
- A. Intensive
B. Selective
C. Exclusive
D. Universal
- Q12.** A company offers limited-period coupons and free trials to stimulate immediate purchases. Which promotional element is being used?
- A. Sales promotion
B. Public relations
C. Personal selling
D. Place
- Q13.** An online service makes booking simple and available from any location. Under the 4Cs model, this most strongly reflects which element?
- A. Customer value
B. Convenience
C. Communication
D. Cost
- Q14.** In a service business, uniforms, reception design and equipment help customers assess a service they cannot examine beforehand. Which extended marketing-mix element is involved?
- A. Process
B. People
C. Physical evidence
D. Price
- Q15.** A manufacturer sells a standardised physical item, whereas a consultancy tailors its offering with extensive client participation. Which distinction is most directly illustrated?
- A. Products are always free
B. Services involve greater customisation and customer involvement
C. Services are always tangible
D. Products cannot be delivered

Level 2: Intermediate

- Q16.** A class representative has finished preparing a meeting notice in a word processor. She wants to preserve the latest changes and ensure the document can be opened again tomorrow. State TWO essential actions or considerations involved in saving the file.
- Q17.** While editing a school newsletter, a student notices that several lines are unevenly aligned and the space between paragraphs makes the text difficult to read. Name TWO formatting controls that can improve the document's readability.
- Q18.** A new business has designed an attractive product but has not yet decided how customers will learn about it. Identify the relevant element of the 4Ps and mention ONE method included under it.
- Q19.** A company adjusts its offering after customers report that it no longer meets their expectations. Identify the marketing-mix characteristic that permits such changes and state why it matters.
- Q20.** Two products serve different purposes: biscuits bought for home consumption and a machine purchased for manufacturing. Classify both goods on the basis of usage.

Level 3: Advanced

- Q21.** A student is preparing a research assignment using a word processor. The report contains many points that must appear in sequence, while another section needs an unordered checklist. The student also wants the document to look organised and easy to scan. Distinguish between numbered and bulleted lists and explain how each would be appropriate in this situation.

- Q22.** A school office has created a document for parents and must circulate both a digital copy and a printed copy. The staff wants to avoid losing changes, reopen the file later and choose suitable print settings. Explain THREE different operations required to complete this workflow.
- Q23.** A small enterprise has limited funds for a new product launch. It has researched its customers but has not decided which retail outlets to use or how to publicise its product. Explain THREE stages in developing its marketing mix that would help it make these decisions and improve the plan later.
- Q24.** A company claims that marketing means only persuading people to buy. However, its competitors study customer needs, improve product features and build long-term relationships. Using the chapter's approach to marketing, explain THREE ways the competitors create value beyond immediate selling.
- Q25.** A stationery brand is comparing newspaper advertisements, sales representatives and a school-event sponsorship. The managers are uncertain whether these methods serve the same communication purpose. Identify and explain THREE distinct promotional tools that can be used in this situation.
- Q26.** A student team is compiling a 20-page project report. Different members have used inconsistent headings, mixed fonts and poorly aligned paragraphs. The report must also contain a table, illustrations and clearly numbered pages. As the team's document editor, recommend FOUR word-processing features or operations that would make the report professional and easier to navigate. Explain the function of each in this context.
- Q27.** A company is planning to launch a new eco-friendly notebook range. Its research suggests that customers value attractive design, affordable pricing and easy availability, but the marketing budget is limited. The management team wants a coherent strategy instead of making isolated decisions. Analyse the role of the FOUR Ps in designing a suitable marketing mix for this product.
- Q28.** A hospital receives complaints even though its doctors are highly qualified. Patients report confusing appointment procedures, unhelpful reception staff and an uncomfortable waiting area. Management initially believes advertising alone can solve these issues. Explain how FOUR relevant elements of the service marketing mix could be used to address the complaints and improve the patient experience.
- Q29.** A clothing company has traditionally offered identical products to a mass audience through one-way advertising. A newer rival studies smaller customer segments, interacts through digital channels and modifies its offerings according to feedback. The first company wants to modernise without losing its existing buyers. Compare the TWO marketing approaches and evaluate FOUR differences or implications for the company's strategy.
- Q30.** An online retailer advertises a product at a low listed price but adds expensive delivery charges, has a complicated ordering process and rarely responds to customers. Buyers increasingly abandon their orders despite attractive promotional offers. Apply the FOUR Cs of the consumer-oriented marketing mix to diagnose the problems and suggest suitable improvements.