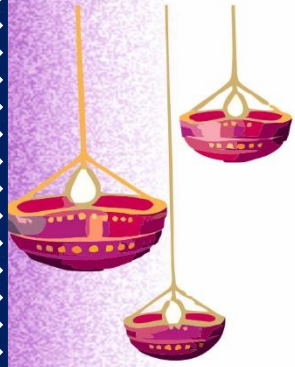


SHREE VASISHTHA VIDHYALAYA ENGLISH MEDIUM (CBSE)



Class-XI (Commerce)

Celebrate Responsibly — The Vasishtha Way

Dear Students of Grades XI & XII,

As the festive season approaches, Shree Vasishtha Vidhyalaya extends warm wishes for a joyful, safe, and meaningful Diwali. May this festival of lights bring peace, happiness, and renewed energy to you and your families.

As senior students and role models of the school, you are encouraged to celebrate Diwali in a manner that reflects the Vasishthian values of mindfulness, responsibility, and continuous learning. During the Diwali break, we invite you to engage in the following purposeful activities:

Celebrate an Eco-friendly Diwali:

Opt for traditional diyas and natural decorations. Minimize or avoid firecrackers and plastic waste, demonstrating care for the environment.

Read and Reflect:

Select at least one book of your choice — fiction, biography, or an inspiring non-fiction title. Reading enhances critical thinking, creativity, and self-awareness.

Access our Digital Library – Vasishtha Learning Space:

<https://vasishthalearningspace.my.canva.site/vasishtha-digital-library>

Learn a New Skill:

Explore a skill that interests you — communication, creative writing, coding, photography, cooking, or basic financial literacy. Learning together or individually strengthens knowledge and life skills.

Recommended platforms:

SWAYAM: <https://swayam.gov.in>

AI for All (Ministry of Education): <https://ai-for-all.in/>

Adopt a Healthy Habit:

Incorporate small yet consistent routines — morning exercise, digital detox, mindful eating, or journaling. These habits foster discipline, well-being, and resilience.

Let this Diwali illuminate not only your surroundings but also inspire self-growth, learning, and responsibility. Wishing all our senior students a safe, eco-conscious, and enriching festive season.

With warm regards,
Shree Vasishtha Vidhyalaya



**Happy Learning !
Happy Diwali !**



Assignment (2025 26)

STD-XI Commerce

Please Note:

1. Students are requested to complete the holiday homework in their school notebooks.
2. The school will reopen on Thursday, 6th November 2025. for all students (Classes XI-XII), as mentioned in the almanac.

ENGLISH

1. Write an application to the Principal of your school requesting permission to organize a cultural program for the upcoming festival in your school.
2. Imagine your school hosted a science exhibition. Write a report for your school magazine describing the event, its highlights, and the students' participation.
3. Write an article for your school newsletter on the topic: *"The Importance of Reading Books in the Digital Age."*
4. Prepare a speech to be delivered in your school assembly on: *"Role of Youth in Environmental Protection."*
5. Describe the personality of the grandmother as seen by the narrator. How does she influence the narrator's perception of life?
6. How do the crew members demonstrate courage and teamwork during the storm at sea?
7. What challenges do historians face in discovering and interpreting ancient artifacts? Give examples from the text
8. How does the narrator's visit to Mrs. Dorling's house change her perspective about her past?
9. Describe Aram's character. How does his honesty and innocence reflect in the story?
10. Your school is organizing a **"Talent Hunt Competition"** for all students of Classes 11 and 12. As the Head Boy/Head Girl, write a notice to be put up on the school notice board informing students about the event. Include the **date, time, venue, and how students can participate.**

ACCOUNTANCY

Topic: Comprehensive Project on Business Transactions, Journal, Ledger, and Trial Balance

Objective: To help students understand and apply the accounting process — from identifying transactions to recording them in books of original entry, posting them to the ledger, and preparing a trial balance — for a dummy business.

Instructions to Students:

1. Form of Business:

Sole Proprietorship (individual owner).

Create a dummy business name of your choice (example: Urban Trends Garments, Techline Electronics, FreshBake Foods, etc.).

2. Capital & Investment:

The owner starts the business with a minimum capital of ₹20,00,000.

3. Nature of Business:

You may choose any one type:

Trading (e.g., Electronics, Clothing, Stationery, etc.)

Manufacturing (e.g., Bakery, Furniture, etc.)

Service (e.g., Travel Agency, Salon, Consultancy, etc.)

4. Number of Transactions:

Record minimum 40 business transactions for the accounting year.

Not included in the above, 10 transactions must be adjustment entries, such as:

Depreciation on fixed assets

Prepaid expenses

Outstanding expenses

Accrued income

Income received in advance
Interest on capital / drawings
Closing stock
Goods withdrawn for personal use
Goods distributed as free samples

Project Work Format:

1. Cover Page

Title of the Project
Student's Name, Roll Number, Class, Section
School Name
Academic Session
Teacher's Name

2. Acknowledgement

A short note expressing gratitude to your teacher and school for guidance.

3. Introduction of the Business

Name of the firm
Nature and scope of business
Capital invested (minimum ₹20,00,000)
Type of products/services offered
Business location
Form of ownership (sole proprietorship)

4. Mission and Vision Statement

Mission: What the business aims to achieve in the short term.
Vision: The long-term goal and direction of the business.

5. Journal Entries

Record all 40 transactions in proper journal format:
Date
Particulars
L.F. (Ledger Folio)
Dr. / Cr. Amount

6. Ledger Accounts

Post each transaction to the respective ledger accounts.
Maintain proper folio references.
Balance each account at the end of the period.

7. Trial Balance

Prepare a Trial Balance as on 31st March 20XX.
Ensure all debits equal credits.

8. Adjustments Section

Show separate workings for each adjustment (like calculation of depreciation, interest, etc.).

Solve the Following questions in your Accountancy Note Book.

Question 1

The Cash Book of M/s Sunrise Traders shows a bank balance of ₹40,000 (Dr) on 31st March 2025. On comparing it with the Pass Book, the following differences were found:

1. Cheques issued worth ₹12,000 were not presented for payment.
2. Cheques deposited ₹7,000 were not yet credited by the bank.
3. Bank charges ₹250 were not recorded in the Cash Book.
4. A customer directly deposited ₹5,000 in the bank.
5. Interest on bank balance ₹400 credited by the bank not recorded in the Cash Book.
6. A cheque for ₹2,000 received was dishonoured but not recorded.
7. A cheque of ₹1,200 issued was recorded in the Cash Book as ₹2,100.

8. A bill of ₹3,000 collected by bank not entered in the Cash Book.
 9. Standing instruction for rent ₹1,000 paid by bank not recorded.
- Prepare Bank Reconciliation Statement as on 31st March 2025.

Question 2.

The Cash Book of M/s Galaxy Furniture shows a debit balance of ₹15,500 on 30th June 2025. The following discrepancies were found:

1. Cheques of ₹4,000 issued but not yet presented.
2. Cheques of ₹3,500 deposited but not collected.
3. Bank charges ₹200 not entered in Cash Book.
4. Bank credited ₹1,000 for interest on deposit.
5. A direct deposit of ₹2,500 by a debtor not recorded in Cash Book.
6. A cheque for ₹1,200 entered twice in Cash Book.
7. A cheque for ₹800 received was dishonoured.
8. Bank paid insurance premium ₹1,500 by standing order not recorded.
9. A wrong debit of ₹700 made by bank.

Prepare BRS as on 30th June 2025.

Question 3.

The Pass Book of M/s Modern Agencies shows a credit balance of ₹20,000, but the Cash Book shows ₹22,400 (Dr). Find reasons and prepare BRS:

1. Cheques deposited ₹5,000 not collected by bank.
2. Cheques issued ₹8,000 not presented for payment.
3. Bank charges ₹300 recorded only in Pass Book.
4. Direct deposit by customer ₹4,000.
5. Dishonoured cheque ₹2,500 not adjusted.
6. Interest credited ₹600.
7. Dividend ₹1,200 collected by bank not entered.
8. Bank paid life insurance ₹1,000 not recorded.
9. A cheque for ₹1,800 wrongly entered as ₹800.

Question 4.

From the following, prepare a BRS of M/s City Electronics as on 31st March 2025.

Cash Book shows ₹50,000 (Dr):

1. Cheques issued ₹10,000 not presented.
2. Cheques deposited ₹6,000 not cleared.
3. Bank charges ₹200 entered twice.
4. Bank credited ₹500 interest.
5. Customer deposited ₹3,000 directly.
6. Cheque of ₹1,500 dishonoured.
7. Bill of ₹2,000 collected by bank not recorded.
8. Bank paid ₹1,000 for insurance.
9. Cheque of ₹2,500 recorded as ₹2,050 in Cash Book.

Question 5.

Cash Book of M/s Green Valley Farms shows an overdraft of ₹18,000 on 31st March 2025. Following differences were noted:

1. Cheques issued ₹9,000 but ₹3,000 not presented.
2. Cheques deposited ₹7,500 but ₹2,000 not collected.
3. Bank charges ₹300 not entered.
4. Interest on overdraft ₹700 not entered.
5. Direct deposit by debtor ₹2,500.
6. Standing instruction for rent ₹1,000 paid by bank.
7. Cheque recorded ₹1,200 instead of ₹2,100.
8. Dividend ₹800 collected by bank.
9. Bill ₹3,000 dishonoured by bank.

Prepare BRS as on 31st March 2025 showing balance as per Pass Book.

Question 6.

Prepare BRS of M/s Royal Textiles as on 31st July 2025.

Cash Book shows balance ₹30,000 (Dr):

1. Cheques issued ₹12,000 not presented.

2. Cheques deposited ₹8,000 not cleared.
3. Bank credited ₹2,000 for interest.
4. Dishonoured cheque ₹1,500.
5. Standing instruction for telephone ₹1,000.
6. Direct deposit ₹3,000.
7. Bank charges ₹250.
8. Cheque of ₹1,800 entered as ₹810.
9. Bill collected by bank ₹5,000 not entered.
10. Cheque deposited returned unpaid ₹2,000.

Question 7.

From the following particulars, prepare a BRS for M/s Bright Traders as on 31st March 2025:

Cash Book balance ₹42,000 (Dr).

1. Cheques issued ₹6,000 not presented.
2. Cheques deposited ₹4,000 not credited.
3. Interest ₹500 credited by bank.
4. Bank charges ₹300.
5. Insurance premium ₹1,200 paid by bank.
6. Cheque ₹1,000 dishonoured.
7. Dividend ₹800 collected by bank.
8. Direct deposit ₹2,000 by customer.
9. Error in Cash Book ₹1,200 recorded instead of ₹2,100.

Question 8.

Cash Book of M/s Vega Solutions shows ₹25,000 (Cr) as bank overdraft on 31st March 2025.

1. Cheques issued ₹10,000 not presented.
2. Cheques deposited ₹7,000 not cleared.
3. Bank charges ₹150.
4. Interest on overdraft ₹500.
5. Dividend ₹1,000 collected.
6. Insurance ₹800 paid by bank.
7. Dishonoured cheque ₹2,500.
8. Error in Cash Book — ₹1,200 recorded instead of ₹2,100.
9. Direct deposit ₹3,000 by debtor.
10. Cheque deposited ₹2,000 recorded twice.

Question 9.

Prepare a BRS for M/s Silver Craft as on 31st March 2025.

Cash Book shows ₹32,000 (Dr):

1. Cheques issued ₹12,000 not presented.
2. Cheques deposited ₹9,000 not cleared.
3. Bank interest ₹400.
4. Bank charges ₹300.
5. Standing instruction ₹1,000.
6. Cheque dishonoured ₹2,000.
7. Direct deposit ₹2,500.
8. Dividend ₹1,200 collected.
9. Cheque of ₹2,800 recorded as ₹2,080.
10. Bill ₹3,000 collected by bank.

Question 10.

The Pass Book of M/s Zenith Stationers shows ₹15,000 credit balance, while Cash Book shows ₹17,200 (Dr). Prepare BRS as on 31st March 2025.

1. Cheques issued ₹8,000 not presented.
2. Cheques deposited ₹5,000 not cleared.
3. Bank charged ₹200.
4. Interest ₹300 credited.
5. Cheque dishonoured ₹1,500.
6. Insurance premium ₹1,000 paid.
7. Error — cheque ₹2,000 entered as ₹200.
8. Bill ₹3,000 collected by bank.

9. Direct deposit ₹4,000 by customer.
10. Rent ₹1,200 paid through standing order.

BUSINESS STUDIES

1. Katherine wants to start a retail business of fashionable items. Change in taste and preferences of customers may result in loss in such type of business. She is hesitating as she is aware of risks which are inherent in every business. She approaches her friend Kristina who is the owner of a retail shop. Kristina advises her to go ahead with her idea as she will get profit as return for undertaking risk. She also told her that some risks in business can be insured by taking insurance policy.

On the basis of the given information about Katherine answer the following questions:

- (a) What is Business Risk?
 - (b) Identify the main features of business risk discussed in the above case. Also quote the lines for the identified feature.
 - (c) Is change in taste and preferences of customers, pure risk or speculative? Why?
2. Ratan after doing his B. Pharma degree from a reputed government college started two chemist shops in two different localities of his home town. Encouraged with the success of these shops, he started six more shops in different cities of the State. His strategy was to cut price, focus on lower- and middle-class patients and open shops near hospitals. He earned good profit margins. But the staff of the shops did not give much attention to the customers. Because of this mis-management he started incurring huge losses and his business failed.

On the basis of the given information about Ratan, answer the following questions:

- (a) Identify and explain the main cause behind the business failure of Ratan.
 - (b) Explain any two other causes of risk associated with Ratan's business.
3. Alex David is a legal advisor in a multinational company. He gets 65,000 per month as his salary. On weekends, Alex David goes to nearby village and teaches some slum children, he does not charge anything from them, he does it out of sympathy and concern for poor children. This gives him mental and psychological satisfaction.

On the basis of the given information about Alex David, answer the following questions:

- (a) Specify the types of human activity performed by Alex David.
 - (b) Differentiate between types of human activity identified in part (a) on any four basis.
4. Mahesh Chandra Sharma operates in iron and steel business for last 25 years. His family is joint and has a lot of ancestral property. All the twenty family members are a part of this business. He is the eldest male member in the family so he heads the business. He is liable to all the creditors of the business as he is the decision maker. Sharma's grandson was born a few days ago and he is also a member of the business.

On the basis of the given information about Mahesh Chandra Sharma, answer the following questions:

- (a) Which form of business is being undertaken by Mahesh Chandra Sharma?
 - (b) Identify the features of the form of business identified in part (a).
5. Rohan, Sohan and Mohan decide to start a business which is created by law and only law can bring it to an end. Rohan has four sons so he wants that his business should be such in which he can easily shift the ownership to his sons whenever he wants. Sohan believes that its functions should be performed by elected representatives. Mohan suggests the owners should be responsible for the losses of the business only to a limited extent.

On the basis of the given information, answer the following questions:

- (a) Which form of business does the above case indicate?
 - (b) Identify and explain three features of this form of business highlighted above by quoting lines from the paragraph.
6. Tripal Ltd. issued prospectus inviting public to subscribe for its shares. It came up with the public issue of Rs.10 crores for 10 lakh shares worth Rs.100 each. But the company wants to be sure on certain issues. You are required to suggest the company about the following aspects:

- (a) Prior approval from which organisation is required before going ahead with raising funds from public.
 - (b) What is the minimum number of shares for which company should receive applications before going ahead with the allotment of shares and what is it called?
 - (c) Why does the company need to appoint underwriters?
 - (d) Identify the value which according to you motivated the company in issuing prospectus.
7. Mumbai Metro is a rapid transit system which is under construction in Mumbai. The system is designed to address both present and future needs of public transportation. The project was implemented under Built, Own, operate and transfer (BOOT) method and has been India's first special metro project in which few

phases (construction and maintenance) were given to private players. The project involved an elevated 11 km Light Rail Transit (LRT) system linking Andheri and Ghatkopar, via Asalpha, Marol, Chakala and Saki Naka. The construction of Mumbai Metro involved building up of a total of 146 km of track, of which 32 km is underground. The project was approved by the Government of Maharashtra in August 2004 and global bids were invited through an Expression of Interest.

On the basis of the given information about Mumbai Metro, answer the following questions:

- a) State the type of public sector enterprise highlighted in above case.
 - b) Explain any three features of this form of business enterprise.
8. Nourish Co Beverages Ltd., the strategic alliance between Tata Global Beverages and Pepsi Co India has plans of delivering healthy beverages for a healthier India. The company is set to disrupt the hydration category in India by delivering enhanced wellness through innovative and affordable ready-to-drink beverages. Science, technology and research forms the foundation of every product in the Nourish Co portfolio. The key product of Nourish Co Beverages Ltd., is Himalayan Orchard Pure available in three flavors viz., Apple, Strawberry and Peach. The reasons for this alliance is complementary capabilities and resources such as distribution channels, technology of both the parties.

On the basis of the given information about Nourish Co Beverages Ltd., answer the following questions:

- a) Identify the kind of business enterprise formed by Tata Global Beverages and PepsiCo India.
 - b) Explain any three features of business enterprise highlighted in above case.
9. In 1983, when Stride Acrolabs was set up, it only dealt with two cities in India- West Bengal and Bihar. In 1985, it started trading nationally and by 2000, company made its way through the international market. Products used in cardiology were manufactured in 1987 and at that time, Monotrate was one of the first products that was launched and went on to become a best seller. In 1993, Stride Pharmaceuticals Industries set up their own research institute STIRI. STIRI became popular by generating knowledge and honing process development skills across the world. In 1994, Stride Pharma enrolled itself in the main stock exchanges in India. Stride Pharmaceuticals shifted its headquarters in Mumbai as it is at the center of Indian commercial trade. The company began its first international acquisition with an amount of US \$ 7.5 million, acquiring international Pharm Lab in Detroit. Later on the company introduced a few more treatment areas which include orthopedics, gynecology, and oncology.

On the basis of the given information about Stride Arcolabs, answer the following questions:

- a) Identify the type of business enterprise highlighted by quoting the lines from above case.
 - b) Explain any four features of the type of business enterprise identified in above question.
10. Sarthak has taken fire insurance policy for his warehouse. Due to fire, he suffered a loss of Rs.5, 00,000 and gets a compensation claim from the insurance company. The damaged stock can be sold for Rs.15, 000.
- a) Who has the right over this amount? Why?
 - b) State and explain the relevant insurance principle in this regard.
11. Rajesh Sachdeva insured his factory for Rs.45 lakhs against the fire. Due to fire, he suffered a loss of stock worth Rs.24 lakhs.
- a) How much amount can be recovered from the insurance company? Why?
 - b) State and explain the relevant insurance principle in this regard.
12. Balaji transport Company has maintained a fleet of registered transportation vehicles to ensure fresh delivery of Fruits and Vegetables from Nagpur and other parts of the country. The consignment is always sent to the most direct route, with fewest transit stops, thereby minimizing the elapsed time and eliminating unnecessary climatic changes Balaji Transport Company has accident insurance policy for all its vehicles. A truck of the company carrying oranges from Nagpur to Varanasi met with an accident. There was no damage to the oranges but the consignment had to be reloaded in a new truck. Due to the time consumed in unloading and reloading, the oranges got spoiled.

On the basis of given information, answer the following questions:

- a. Will the company get compensation for the loss of oranges from the insurance company? Give reason in support of answer.
 - b. Explain the relevant principle of insurance.
13. Prabhakaran wants to buy a new furniture for his house, but he does not have enough space to keep it. He plans to sell his old furniture via Quikr.com to get some surplus money and space for the new one. He receives a good response of the post in this respect on the company's webpage. Finally, he selects the buyer who offered him the biggest price.

In which direction Prabhakaran electronic transaction can be visualized to be extending? Explain in detail.

14. Invincible publishers is an independent publishing and marketing platform founded to design, publish, promote and sell professional quality printed books. Invincible publishers, aim to make this very process as quick, smooth and hassle-free as possible. With its brilliant team of editors, designers and marketers, company goal to bring many stories to life and give them the readership they deserve. To achieve its objective of delivering the quality content at reasonable prices with the competitive royalties and aggressive marketing company appointed Rachel as the marketing manager. During a sales meeting she suggested to sell books online. Everyone in the meeting looked surprised because from last many years they have been selling books by visiting booksellers and stories The sales director asked Rachel to prepare a detailed report on online selling concept. Soon the books were available online. Within three months the publisher received a big order from Canada. This would be their first export so the sales manager is now trying to understand the export procedure.
15. On the basis of the given information about invincible publishers, answer the following questions:
 - a) Discuss in detail any four-payment mechanism for online business.
16. FAST BIKES Ltd. is a well-known manufacturer in the field of automobiles. It manufactures different models of sports bikes. The company officials interact with the suppliers on regular basis through internet. Speedo Steel Ltd. is the leading supplier of and steel to them. Fast bikes Ltd. Uses internet for placing orders, keeping track of different suppliers, delivery of components, payments etc. the company personnel finds the use of internet very convenient and time saving. Moreover, use of internet provides the company with a wide variety of suppliers to choose from. Thus, internet has not only widened their market but has given them much wider choice as well.
 - a. Differentiate e-business and traditional business on any four basis.
17. LMN Ltd. is filing its income tax returns on time. They are also updating their shareholders about their projects and providing for return to them. Towards which interest group are they fulfilling their responsibility? Which values are being followed by the Co.?
18. MNO Ltd., A renowned computer company follows the vision of "reaching new heights with its people on its side", It not only provides quality products but also provides various facilities to its employees for 5 years of service. It also provides computer skills to youth in remote areas for free.
 - (a) What according to you are the business ethics of the company?
 - (b) Explain any four elements of business ethics.
19. "Business is not merely a profit-making enterprise but essentially a social institution." Explain in detail.

ECONOMICS

1. Draw demand curves with the price elasticity of demand throughout equal to:
 - (a) zero
 - (b) one
 - (c) infinity
2. What is the relation between X and Y, in each case, if with the fall in the price of X demand for Y (a) rises and (b) falls? Give reasons.
3. Giving reason, state whether the following statements are true or false.
 - (a) The demand for a good increases with increase in the income of its buyer.
 - (b) If the good X and Y are substitutes a rise in the price of X will result in a rightward shift of the demand curve of Y.
4. Suppose there are three consumers in a particular market: Ashok, Mohan and Jay. Their demand schedules are given in the following table:

Price	Quantity Demanded by Ashok	Quantity Demanded by Mohan	Quantity Demanded by Jay
1	60	55	24
2	50	40	13
3	40	25	5
4	30	10	0
5	20	0	0

- (a) Derive the market demand schedule.
 - (b) Suppose Mohan drops out of the market. Derive the new market demand schedule.
 - (c) Suppose Mohan stays in the market and another person, Bhim, joins the market, whose quantity demanded at any given price is half of that of Ashok. Derive the new market demand schedule.
5. Giving reasons, classify the following into fixed costs and variable costs.
 - (a) Wages to the daily wage workers
 - (b) Salary of the permanent staff
 - (c) Expenditure on purchase of raw materials
 - (d) Interest on borrowed capital

- (e) Electricity Meter rent (f) Sales Tax
(g) Salaries of employees/managers (h) Expenditure on purchase of raw materials
(i) Rent paid for hiring building/shop (j) Interest paid on borrowed money
(k) Estimated rent of owner's own building (l) Estimated interest on capital/savings invested by the owner himself.

6. Read the given case carefully and answer the following questions on the basis of the same.

Fixed costs are expenditures that do not change regardless of the level of production, at least not in the short-term. Whether you produce a lot or a little, the fixed costs are the same. One example is the rent of a factory or a retail space. Once you sign the lease, the rent is the same regardless of how much you produce, at least until the lease runs out. Variable costs, on the other hand, are incurred in the act of producing—the more you produce, the greater is the variable cost. Labour is treated as a variable cost, since producing a greater quantity of a good or service typically requires more workers or more work hours. Variable costs would also include cost of raw materials used.

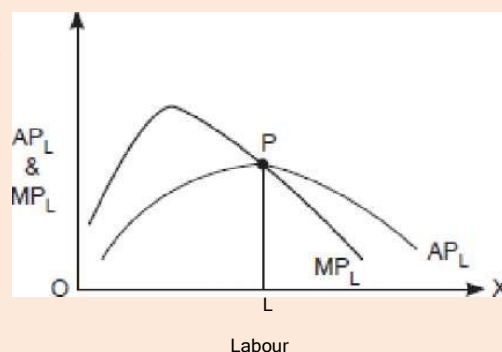
- (a) State the cost which remains constant with a change in output. (b) Give an example of variable cost.
(c) Define variable cost. (d) Give two examples of fixed cost.

7. Read the given passage and answer the questions that follow.

Average Product (AP) refers to the output per unit of variable input. $AP_L = \frac{TP_L}{L}$. Where L stands for labour.

Marginal Product (MP) refers to the change in the output per unit of change in the input when all other inputs are held constant [here capital is held constant].

$MP_L = \frac{\text{Change in Output}}{\text{Change in Input}} = \frac{\Delta TP_L}{\Delta L}$. Where Δ represents the change of the variable showing their relationship graphically, the MP curve looks like an 'inverse U-shaped curve'. AP curve is also inverse 'U-shaped curve'.



As we increase the amount of input-labour, the MP rises. AP being the average of MP also rises but rises less than MP. Then after a point MP starts falling. However as long as value of MP remains higher than the value of AP, AP continues to rise.

Once MP has fallen sufficiently its value become less than AP and AP also starts falling.

- (a) Define MP and comment on the shape of MP curve.
(b) Explain the relationship between MP curve and AP curve.
- 8. What type of changes take place in total product and marginal product when there are:**
(a) increasing returns to a factor?
(b) diminishing returns to a factor? Why do these changes take place?
- 9. Draw Average Variable Cost (AVC), Average Total Cost (ATC) and Marginal Cost (MC) curves in a single diagram. State the relation between MC curve and AVC and ATC curves.**

Complete the following table if the AFC at one unit of production is ₹60

Output (units)	TC	TVC	TFC	AVC	AFC	ATC	MC	
1	90							
2	105							
3	115							
4	120							
5	135							
6	160							
7	200							
8	260							

INFORMATICS PRACTICES

Instructions

- To be done in IP Notebook.
- Write a program to create a dictionary by taking appropriate keys and values of different places that you visit during Diwali vacation. For example
{ 'Place-West Bengal': ['Sweet dish-Misti doi', 'Language-Bengali', 'Festival-Durga Puja'] }
- Write commands to display the contents of all the dictionary in tabular format.
- Write commands to add any new place along with other values accepted from user to the above dictionary.
- Write commands to modify some contents from the already created dictionary
(Note-You can also create a menu based application to solve above tasks.)

PHYSICAL EDUCATION

Instructions

- Read all questions carefully before answering.
- Choose the most appropriate answer from the four options (A, B, C, D).

3. Write only the question number and the correct option (e.g., 1 – B) in your notebook or answer sheet.
4. Revise your answers before submission.
5. Submit the completed assignment by the given deadline.
6. This assignment covers Units 1 to 5 of Physical Education syllabus.

Unit 1 – Changing Trends & Career in Physical Education

1. The “integration of physical education with education” emphasizes:
 - A. Physical fitness over academics
 - B. Balanced development of mind and body
 - C. Separation of cognitive and physical learning
 - D. Focus only on sports achievements
2. One major impact of technology on sports performance analysis is:
 - A. Reduced human judgment errors
 - B. More bias in decision-making
 - C. Elimination of player effort
 - D. Decrease in performance standards
3. Khelo India emphasizes “Identification of talent at grassroots.” This represents which educational objective?
 - A. Cognitive
 - B. Psychomotor
 - C. Affective
 - D. Social
4. A PE teacher encouraging teamwork, respect, and empathy is focusing on which domain?
 - A. Psychomotor
 - B. Affective
 - C. Cognitive
 - D. Technical
5. In integrated physical education, the main emphasis is on:
 - A. Elite training
 - B. Holistic growth of all learners
 - C. Skill-specific drills
 - D. Specialized coaching
6. Which factor best explains “changing trends in sports participation”?
 - A. Decrease in awareness
 - B. Increase in sedentary jobs
 - C. Technological and social modernization
 - D. Decline in urban facilities
7. Sports analytics and wearable trackers mostly help in:
 - A. Increasing coach workload
 - B. Monitoring athlete health and load
 - C. Avoiding competition
 - D. Replacing training
8. The professional who studies the psychological aspects of performance is called:
 - A. Sports pedagogue
 - B. Sports psychologist
 - C. Sports sociologist
 - D. Physical therapist
9. One emerging career in Physical Education due to globalization is:
 - A. Sports journalism
 - B. Mechanical engineering
 - C. Chartered accountancy
 - D. Architecture
10. Which trend has contributed most to increased women participation in sports?
 - A. Technological gadgets
 - B. Social awareness and equality movements
 - C. Lack of competition
 - D. Reduced sports funding

Unit 2 – Olympic Value Education

1. The Olympic values are rooted in:
 - A. Competition and dominance
 - B. Friendship, respect, excellence
 - C. National pride
 - D. Media promotion
2. The “Joy of Effort” principle focuses on:
 - A. Success in every attempt
 - B. Enjoyment of participation and striving
 - C. Winning medals
 - D. Training intensity
3. When a coach teaches players to shake hands regardless of result, it promotes:
 - A. Excellence
 - B. Friendship
 - C. Respect
 - D. Joy of effort
4. “Citius, Altius, Fortius — Communiter” was modified in:
 - A. 1992
 - B. 2008
 - C. 2021
 - D. 2016

5. A student organizing a fair-play competition learns which Olympic value most?
 - A. Friendship
 - B. Equality
 - C. Respect
 - D. Unity
6. If two rival athletes help each other finish a race, it shows:
 - A. Commercialism
 - B. Political neutrality
 - C. Olympic spirit
 - D. Record obsession
7. Inclusion of Paralympic Games emphasizes:
 - A. Political equality
 - B. Inclusivity and respect for diversity
 - C. Separate sports
 - D. Medical advancement
8. The Olympic Charter primarily aims to:
 - A. Govern world politics
 - B. Guide sports ethics and fair play
 - C. Regulate sponsorships
 - D. Promote nationalism
9. Who is known as the father of the Modern Olympic Games?
 - A. Dr. Norman Borlaug
 - B. Pierre de Coubertin
 - C. Juan Antonio Samaranch
 - D. Avery Brundage
10. The five Olympic rings symbolize:
 - A. Five sports
 - B. Five continents
 - C. Five years
 - D. Five nations

Unit 3 – Yoga

1. The practice of Pranayama improves:
 - A. Muscular strength
 - B. Cardiovascular endurance
 - C. Respiratory efficiency and mental calmness
 - D. Only body flexibility
2. Which limb of Ashtanga Yoga focuses on self-discipline and observances?
 - A. Yama
 - B. Niyama
 - C. Dharana
 - D. Samadhi
3. Performing Kapalbhathi daily benefits the:
 - A. Digestive and respiratory systems
 - B. Circulatory system only
 - C. Skeletal system
 - D. Endocrine system
4. The eight limbs of yoga progress from:
 - A. Physical → Mental → Spiritual
 - B. Spiritual → Physical → Mental
 - C. Emotional → Social → Technical
 - D. None of these
5. Which Asana helps relieve hypertension?
 - A. Savasana
 - B. Chakrasana
 - C. Ustrasana
 - D. Dhanurasana
6. Yogic Kriyas help in:
 - A. Strength building
 - B. Internal purification
 - C. Calorie burning
 - D. Improving balance
7. Regular yoga practice affects the nervous system by:
 - A. Stimulating the sympathetic system
 - B. Balancing sympathetic and parasympathetic activity
 - C. Over-activating parasympathetic system
 - D. Blocking nerve signals
8. Meditation primarily improves:
 - A. Agility and speed
 - B. Attention span and self-awareness
 - C. Endurance
 - D. Power
9. The word “Yoga” is derived from the Sanskrit root “Yuj,” meaning:
 - A. Freedom
 - B. Union or join
 - C. Peace
 - D. Breath
10. Which type of Pranayama involves alternate nostril breathing?
 - A. Bhastrika
 - B. Nadi Shodhana
 - C. Kapalbhathi
 - D. Ujjayi

Unit 4 – Physical Education & Sports for CWSN

1. Adapted physical education differs from general PE because it:
 - A. Involves only theory
 - B. Is individualized based on needs
 - C. Eliminates team activities
 - D. Ignores interaction
2. The least restrictive environment principle means:
 - A. Teaching in separate settings
 - B. Inclusion with necessary support
 - C. Exclusion to maintain performance
 - D. No adjustments made

3. The main goal of inclusive education is:
 - A. Equal participation for all
 - B. Faster curriculum completion
 - C. Specialized segregation
 - D. Uniform ability
4. A student with mild cerebral palsy benefits most from:
 - A. Yoga and stretching
 - B. High-speed sprinting
 - C. Competitive football
 - D. Wrestling
5. Which law protects rights of persons with disabilities?
 - A. RPWD Act, 2016
 - B. RTI Act, 2005
 - C. RTE Act, 2009
 - D. Sports Policy Act, 2018
6. A PE teacher modifying equipment for differently-abled students is practicing:
 - A. Differentiated instruction
 - B. Coaching bias
 - C. Sports exclusion
 - D. Traditional pedagogy
7. In adaptive PE, assessment focuses more on:
 - A. Comparison with others
 - B. Individual progress
 - C. Team ranking
 - D. Record-breaking
8. Disability etiquette requires:
 - A. Offering unsolicited help
 - B. Treating respectfully and asking before helping
 - C. Avoiding communication
 - D. Talking only through interpreters
9. Which disability is associated with hearing loss?
 - A. Visual impairment
 - B. Locomotor disability
 - C. Deafness
 - D. Autism
10. "Inclusive education" ensures:
 - A. Equal learning opportunities for all
 - B. Only sports inclusion
 - C. Segregation by ability
 - D. Special school-only learning

Unit 5 – Physical Fitness, Health & Wellness

1. Physical fitness is best defined as:
 - A. Ability to perform daily tasks efficiently without fatigue
 - B. Playing sports only
 - C. Having muscular shape
 - D. Doing intense workouts
2. Which component of fitness is most affected by inactivity?
 - A. Flexibility
 - B. Strength
 - C. Cardiovascular endurance
 - D. Speed
3. Wellness is dynamic because:
 - A. It changes with environment and lifestyle
 - B. It is fixed for all
 - C. It depends only on heredity
 - D. It has no mental part
4. An individual who exercises but eats poorly lacks:
 - A. Physical fitness
 - B. Wellness balance
 - C. Muscular strength
 - D. Motivation
5. The wellness dimension focusing on managing emotions is:
 - A. Social
 - B. Emotional
 - C. Physical
 - D. Environmental
6. "Health is a state of complete physical, mental, and social well-being" — given by:
 - A. WHO
 - B. IOC
 - C. CBSE
 - D. UNESCO
7. Overtraining in sports leads to:
 - A. Improved performance
 - B. Decreased immunity and fatigue
 - C. Rapid recovery
 - D. Motivation
8. The balance between calories consumed and burned determines:
 - A. Flexibility
 - B. Body composition
 - C. Agility
 - D. Coordination
9. Which of the following is a *skill-related* component of fitness?
 - A. Balance
 - B. Strength
 - C. Flexibility
 - D. Endurance
10. The FITT principle helps to:
 - A. Plan effective exercise routines
 - B. Increase fatigue
 - C. Avoid nutrition
 - D. Reduce motivation

APPLIED MATH

1. Solve for x : $\log_2 x = 5$
2. Solve: $\log_3(x-1) + \log_3(x+1) = 2$ If $\log a = 2$ and $\log b = 3$, find $\log(ab^2)$
3. Solve for x : $\log_5(x^2 - 4) = 2$
4. Simplify: $\log_{10} 1000 - \log_{10} 10$
5. Let $A = \{1, 2, 3, 4\}$, $B = \{3, 4, 5, 6\}$. Find $A \cup B$ and $A \cap B$
6. If $U = \{1, 2, 3, 4, 5, 6, 7, 8\}$, $A = \{2, 4, 6, 8\}$, $B = \{1, 3, 5, 7\}$, find A' and B'
7. Prove: $A \cup (B \cap C) = (A \cup B) \cap (A \cup C)$
8. If $A = \{x: x \text{ is even}, 1 \leq x \leq 10\}$, find the number of elements in A
9. Let $A = \{1, 2, 3\}$, $B = \{3, 4\}$, $C = \{2, 3, 5\}$. Find $(A \cap B) \cup (A \cap C)$
10. Evaluate: $\lim_{x \rightarrow 0} \frac{\sin x}{x}$
11. Evaluate: $\lim_{x \rightarrow 2} \frac{x^2 - 4}{x - 2}$
12. Find: $\lim_{x \rightarrow 1} \frac{x^3 - 1}{x - 1}$
13. Evaluate: $\lim_{x \rightarrow 0} \frac{1 - \cos x}{x^2}$
14. If $\lim_{x \rightarrow a} f(x) = 5$ and $\lim_{x \rightarrow a} g(x) = 3$, find $\lim_{x \rightarrow a} [2f(x) - 3g(x)]$
15. Find $\frac{d}{dx}(x^3 + 5x^2 - 2x + 7)$
16. Differentiate $y = \sin x + \cos x$
17. If $y = e^{2x}$, find $\frac{dy}{dx}$
18. Differentiate $y = \ln x$ with respect to x
19. If $y = x^2 \cdot \sin x$, find $\frac{dy}{dx}$
20. Find the derivative of $y = \frac{1}{x}$
21. Differentiate $y = \tan x$
22. If $y = x^x$, find $\frac{dy}{dx}$
23. Differentiate $y = \sqrt{x^2 + 1}$
24. Find $\frac{d}{dx}(x^4 - 3x^3 + 2x - 5)$
25. Determine whether the function $f(x) = x^2 + 1$ is **one-one** and/or **onto**
26. Find the domain and range of $f(x) = \sqrt{2x - 1}$
27. If $f(x) = 2x + 3$ and $g(x) = x^2$, find $(f \circ g)(x)$
28. Find x if $f(x) = 3x - 5 = 10$
29. If $f(x) = x^2$ and $g(x) = x + 1$, find $(g \circ f)(x)$
30. Find the 15th term of the arithmetic progression (AP): 3, 7, 11, ...
31. Find the sum of the first 20 terms of the AP: 5, 9, 13, ...
32. The sum of first n terms of an AP is given by $S_n = n^2 + 3n$. Find the 10th term of the AP.
33. Find the 8th term from the last of the AP: 7, 12, 17, ..., 10735. A person saves ₹50 in the first month, ₹55 in the second month, ₹60 in the third month, and so on. How much will he save in the 12th month?
34. Find the sum of the first 15 odd numbers.
35. If the sum of first n terms of an AP is $S_n = 2n^2 + 3n$, find the first term and common difference.
36. Find the 10th term of the geometric progression (GP): 3, 6, 12, 24, ...
37. Find the sum of the first 8 terms of the GP: 2, 6, 18, ...
38. The sum of the first n terms of a GP is $S_n = 81(1 - (1/3)^n)$. Find the first term and common ratio.

MARKETING

Case Study: The Rise and Fall of TATA Nano

In 2008, Tata Motors launched the Tata Nano, famously marketed as the “People’s Car.” The idea originated when Ratan Tata saw a family traveling unsafely on a scooter and decided to create a car affordable for the common Indian. The Nano was priced at just ₹1 lakh, making it the world’s cheapest car at launch.

Initially, the Nano drew global attention for its engineering innovation and affordability. Tata Motors targeted India’s large two-wheeler owners — families who aspired to own a car but couldn’t afford one. However, the positioning of the Nano as the “cheapest car” soon backfired. Consumers in India viewed a car not only as a utility but also as a status symbol. The “cheap” tag lowered the product’s aspirational value.

Moreover, production delays due to the Singur land issue, technical problems, and rising costs further damaged the brand's credibility. Despite later efforts to reposition it as a "smart city car," the perception had already set in. Eventually, in 2018, production was stopped.

The Nano's journey is now studied as a case in marketing — showing how even a well-engineered, affordable product can fail if segmentation, targeting, and positioning are not aligned with consumer psychology and aspirations.

Questions

Multiple Choice Questions (MCQs)

1. The Tata Nano was originally positioned as:
a) A luxury city car b) The world's cheapest car c) A premium hatchback d) A sports car
2. Tata Nano was primarily targeted toward:
a) Urban youth b) Two-wheeler owners and lower-middle-class families
c) Upper-middle-class families d) Rural farmers
3. The main segmentation basis used by Tata Motors for the Nano was:
a) Geographic segmentation b) Demographic and income-based segmentation
c) Psychographic segmentation d) Behavioral segmentation
4. Which of the following was a key positioning mistake for the Nano?
a) Emphasizing affordability over aspiration b) Ignoring product safety
c) Poor distribution d) No advertising
5. The failure of Tata Nano mainly teaches us the importance of:
a) Cost reduction b) Customer relationship management
c) Correct market positioning d) Distribution channels

Short Answer Questions (STP Focused)

6. What was Tata Motors' main target market for the Nano?
7. Which segmentation variables did Tata Motors use while identifying the market for the Nano?
8. How did Tata Motors position the Nano in the market, and why did it fail?
9. Suggest a better positioning strategy that could have improved Nano's image among consumers.
10. Explain how consumer perception plays a vital role in positioning a product like the Tata Nano.

NOTE:

- ❖ Students need to complete the subject specific assignments as per the instructed norms.
- ❖ **Submission date for all assignments is 12th November, 2025, Wednesday.**
- ❖ These assignments are a part of the Internal Assessments and will be marked for the same. It is mandatory for the students to complete the assignments and submit it to the concerned teachers.
- ❖ Students are requested to clarify any doubts about the assignments during regular classes.

May the auspicious glow of Diwali Illuminate your Life with joy, prosperity, good health and hosting success.

