SHREE VASISHTHA VIDHYALAYA

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

PA-II Assignment: 2026 27

Class-XII Commerce

DATE OF SUBMISSION: 11-07-2026 (Saturday)

1.	ENGLISH

Easy Level

1. Why did Douglas decide to learn swimming?
2. Describe the incident that made Douglas afraid of water.
3. Who helped Douglas overcome his fear of water?
4. What lesson did Douglas learn from his experience?
5. Why does the poet call a thing of beauty a 'joy forever'?
6. Name any four beautiful objects mentioned in the poem.
7. What does beauty do to our minds and hearts?
8. What removes the 'pall of sadness' from our lives?
9. Why was the Maharaja called the Tiger King?
10. What prediction did the astrologers make at the Maharaja's birth?
11. Why did the Maharaja ban tiger hunting in his kingdom?
12. How did the Maharaja finally meet his death?
13. Write a letter to the Editor expressing concern over increasing plastic pollution in your city.
14. Write a letter to the Editor highlighting the problem of poor sanitation in your locality.
15. Write a letter to the Editor on the need for water conservation.

Medium Level

1. How did fear affect Douglas's life for many years?
2. Explain the role of the swimming instructor in Douglas's recovery.
3. Why does Douglas say that fear is more terrifying than death?
4. How does Douglas's experience inspire people facing challenges?
5. How does nature help human beings overcome sorrow?
6. Explain the significance of the phrase "endless fountain of immortal drink."
7. Why does Keats believe that beauty never fades?
8. How is the poem relevant to modern life?
9. How did the astrologer's prophecy influence the Maharaja's actions?
10. Explain the irony in the ending of the story.
11. Why is The Tiger King considered a satire on power?
12. What does the story suggest about fate and destiny?
13. Write a letter to the Editor discussing the increasing cases of cybercrime among teenagers and suggesting preventive measures.
14. Write a letter to the Editor expressing concern over the declining reading habits among students.
15. Write a letter to the Editor suggesting measures to improve road safety in your city.

HARD Level

1. "Fear is a state of mind that can be conquered." Discuss with reference to Douglas's experience.
2. Evaluate Douglas's determination and resilience in overcoming fear.
3. Compare Douglas's struggle with any real-life situation where perseverance leads to success.
4. If Douglas had given up after his first failure, how would the message of the chapter have changed?
5. "Beauty is not a luxury but a necessity." Justify with reference to the poem.
6. Critically analyse Keats's belief that nature has the power to heal emotional wounds.
7. How does A Thing of Beauty encourage people to remain optimistic despite suffering?
8. Explain how the poem promotes environmental awareness in today's world.
9. "The Tiger King is a satire on arrogance, superstition and misuse of power." Discuss.
10. Fate cannot be defeated by human pride. Justify this statement with reference to the story.
11. If you were the Diwan, what advice would you have given the Maharaja to prevent his tragic end?
12. Evaluate the role of irony in making The Tiger King both humorous and thought-provoking.
13. Rapid urbanisation has resulted in traffic congestion, shrinking green spaces and poor waste management. Write a letter to the Editor suggesting measures for sustainable urban development.

	14. Artificial Intelligence is transforming education. Write a letter to the Editor discussing its benefits, challenges and the need for responsible use. **15.** Climate change has increased the frequency of heat waves and water scarcity. Write a letter to the Editor urging citizens and authorities to take immediate action.
2.	**ACCOUNTANCY**

Chapter 4: Admission of a Partner

Q1. Madan and Mohan are partners in a firm sharing profits in the ratio of 3:2. Gopal is admitted as a new partner for 3/10th share of profits half of which is gifted by Madan and remaining share is taken by Gopal equally from Madan and Mohan.
Calculate the new profit-sharing ratio.

Q2. Asha and Aditi are partners in a firm sharing profits and losses in the ratio of 3:2. They admit Raghav as a partner for 1/4th share in the profits of the firm. Raghav brings ₹ 6,00,000 as his capital and his share of goodwill in cash. Goodwill of the firm is to be valued at two years' purchase of average profit of the last four years.
The profits of the firm during the last four years are given below:

Year	Profit (₹)
2013-14	3,50,000
2014-15	4,75,000
2015-16	6,70,000
2016-17	7,45,000

The following additional information is given:
(i) To cover management cost an annual charge of ₹ 56,250 should be made for the purpose of valuation of goodwill.
(ii) The Closing stock for the year ended 31st March,2017 was overvalued by ₹ 15,000.
Pass necessary Journal entries on Raghav's admission showing the working notes clearly.

Q3. Arjun and Gagan are partners sharing profits and losses in the ratio of 5:3. Hitesh is admitted as a new partner for 3/10th share of profit half of which was gifted by Arjan and the remaining share was taken by Hitesh equally from Arjun and Gagan. The goodwill of the firm is valued at ₹ 36,000.
Hitesh brings in ₹ 50,000 as Capital and his requisite share of Goodwill.
Profit for the first year of new partnership amounts to ₹ 40,000.
Pass the necessary Journal entries to adjust goodwill and distribute profit.

Q4. A and B were partners in a firm sharing profits in the ratio of 4:3. They admitted C as a new partner for 3/7th share in the profits of the firm. New profit-sharing ratio will be 2:2:3. C brought ₹ 2,00,000 as his capital and ₹ 60,000 for his share of premium for goodwill, half of which was withdrawn by A and B from the firm.
Calculate sacrificing ratio and pass necessary Journal entries in the books of the firm for the above transactions.

Q5. Karan and Varun were partners in a firm sharing profits and losses in the ratio of 1:2. Their fixed capitals were ₹ 2,00,00 and ₹ 3,00,000 respectively. On 1st April,2025, Kishore was admitted as a partner for 1/4 share in the profits. Kishore brought ₹ 2,00,000 for his capital which was to be kept fixed like the capitals of Karan and Varun. Kishore acquired his share of profit from Varun.
Calculate goodwill of the firm on Kishore's admission and the new profit-sharing ratio of Karan, Varun and Kishore.
Also, pass necessary Journal entry for the treatment of Goodwill on Kishore's admission considering that Kishore did not bring his share of goodwill premium in cash.

Q6. Balance Sheet of X and Y who share profits and losses in the ratio of 3:2 as at 31st March,2025 was:

Liabilities		₹	Assets	₹
Sundry Creditors		1,00,000	Cash at Bank	10,000
General Reserve		60,000	Debtors	50,000
Profit & Loss A/c		25,000	Stock	70,000
X's Capital	48,000		Furniture	20,000
Y's Capital	32,000	80,000	Plant and Machinery	1,00,000
			Advertisement Suspense	15,000
		2,65,000		**2,65,000**

They admit Z as a partner from 1st April,2025 for 1/5 share in the profits of the firm. Z brings ₹ 50,000 as his capital.
Give Journal entry for the adjustment of Goodwill.

Q7. Pass Journal entries to record following transactions on the admission of Manoj, as a partner in the Journal of Leena and Rohit:
(i) Value of furniture is to be increased by ₹ 10,000.

(ii) Value of furniture is to be increased to ₹ 40,000 (Book value of furniture ₹ 20,000)
(iii) Value of furniture is to be brought up to 120% of its value. (Book value of furniture ₹ 50,000)
(iv) Stock is undervalued by 10% (Book value of stock ₹ 18,000)
(v) Stock is overvalued by 10% (Book value of stock ₹ 22,000)
(vi) Market value of computers is ₹ 25,000 (Book value of computer ₹ 20,000)
(vii) Machinery is taken by Leena for ₹ 80,000 (Book value of Machinery ₹ 60,000)
(viii) One-third of machinery is taken by Rohit for ₹ 30,000 and balance is revalued at ₹ 57,600 (Book value of machinery ₹ 72,000)
(ix) Out of the amount of insurance premium which was debited to profit & loss Account, ₹ 5,000 to be carried forward to next year as prepaid expenses.
(x) Expenses on revaluation of ₹ 5,000 paid by Leena.
(xi) A debtor whose dues of ₹ 14,000 were written off as bad debts last year, paid ₹ 10,000 in settlement.

Q8. Arti and Bharti are partners in a firm sharing profits in the ratio of 3:2. They admitted Sarthi as a new partner and decided the new profit-sharing ratio as 3:3:2. At the time of admission of Sarthi, Debtors and Provision for Doubtful Debts were ₹ 95,000 and ₹ 10,000 respectively. All Debtors are good.
Pass the necessary Journal entries.

Q9. Chaman and Deepak are partners in a firm sharing profits in the ratio of 3:2. They admitted Asha as a partner and agreed new profit-sharing ratio as 3:3:2. At the time of admission of Asha, Debtors and Provision for Doubtful Debts were ₹ 95,000 and ₹ 10,000 respectively, ₹ 7,500 of the debtors became bad. Provision of 5% is to be required on sundry Debtors for doubtful debts.
Pass the necessary Journal entries.

Q10. Chander and Damini were partners in a firm sharing profits and losses equally. On 31st March,2017, their Balance Sheet was as follows:

Balance Sheet of Chander and Damini as on 31st March,2017

Liabilities	₹	Assets	₹
Sundry Creditors	1,04,000	Cash at Bank	30,000
Capitals:		Bills Receivable	45,000
Chander		Debtors	75,000
2,50,000	4,66,000	Furniture	1,10,000
Damini		Land and Building	3,10,000
2,16,000			
	5,70,000		**5,70,000**

On 1st April,2017, they admitted Elina as a new partner for 1/3rd share in the profits on the following conditions:
(i) Elina will bring ₹ 3,00,000 as her capital and ₹ 50,000 as her share of goodwill premium, half of which will be withdrawn by Chander and Damini.
(ii) Debtors to the extent of ₹ 5,000 were unrecorded.
(iii) Furniture will be reduced by 10% and 5% provision for bad and doubtful debts will be created on bills receivables and debtors.
(iv) Value of land and building will be appreciated by 20%
(v) There being a claim against the firm for damages, a liability to the extent of ₹ 8,000 will be created for the same.
Prepare Revaluation Account and Partners' Capital Accounts.

Q11. P, Q and R were in partnership in partnership sharing profits and losses in the ratio of 6:3:1. They admit S into partnership with effect from 1st April,2025. New profit-sharing ratio among P, Q,R and S will be 3:3:3:1. They also decide to record the effect of the following without affecting their book values, by passing an adjustment entry

General Reserve	₹ 1,80,000
Contingency Reserve	₹ 30,000
Advertisement Suspense A/c (Dr)	₹ 1,20,000

Pass the adjustment entry.

Chapter 5: Retirement of a Partner

Q1. Amit, Sumit and Jatin were sharing profits and losses in the ratio of 5:3@. Jatin retired and Amit and Sumit decided to continue the firm sharing profits and losses equally after Jatin's retirement. They decided to record the effect of the following revaluations without affecting the book value of the assets and liabilities by passing the Adjustment Entry:

	Book Values (₹)	Revised Value (₹)
Land and Building	5,00,000	5,50,000
Plant and Machinery	2,50,000	2,40,000
Sundry Creditors	60,000	55,000
Outstanding Expenses	60,000	75,000

Pass necessary adjustment entry.

Q2. Raja, Nawab and Badshah are equal partners in a firm whose books are closed on 31st March every year. Give Journal entry to distribute General Reserve of ₹ 40,000 on retirement of Nawab if the partners (including retiring partner) decide to transfer 25% of the balance of General reserve to Investment Fluctuation Reserve.

Q3. Anas, Biswas and Manish are equal partners. Biswas retired from the firm on 1st April,2025 and remaining partners decided to share future profits in the ratio of 5:4. Remaining partners also decide on Biswas's retirement to record the effect on the following without affecting their book value by passing an adjustment entry.

	Book Values (₹)
General Reserve	60,000
Contingency Reserve	10,000
Profit & Loss A/c (Cr)	30,000
Advertisement Suspense A/c	10,000

Pass an adjustment entry.

Q4. Anas, Biswas and Manish are equal partners. Biswas retired from the firm on 1st April,2025 and remaining partners decided to share future profits in the ratio of 5:4. Remaining partners also decide on Biswas's retirement to record the effect on the following without affecting their book value by passing an adjustment entry.

	Book Values (₹)
General Reserve	40,000
Contingency Reserve	10,000
Profit & Loss A/c (Dr)	30,000
Advertisement Suspense A/c	30,000

Pass an adjustment entry.

Q5. A, B and C are partners in a business, sharing profits and losses in the ratio of 3:2:1. Their balance Sheet as at 31st March, 2025 was:

Liabilities		₹	Assets	₹
Sundry Creditors		16,000	Cash in Hand	6,000
General Reserve		60,000	Cash at Bank	10,000
Capital A/cs:			Sundry Debtors	90,000
A	1,00,000		Stock in Hand	70,000
B	1,00,000		Machinery	60,000
C	1,00,000	3,00,000	Building	1,40,000
		3,76,000		**3,76,000**

C retired from partnership on 1st April, 2025.It was agreed that the amount due to him will be paid on 30th June, 2025.It was also agreed to adjust the value of assets as follows:

(i) Provide for doubtful debts @ 5% on Sundry Debtors.
(ii) Reduce Stock by 5% and Machinery by 10%.
(iii) Building to be revalued at ₹ 1,51,000.
(iv) Goodwill of the firm is valued at ₹ 1,50,000
(v) A and B will continue to carry on the business and shall share profits and losses equally in future.
(vi) A furniture purchased on 1st January, 2025 for ₹ 4,000 accounted as on expenses is to be brough in @10% p.a.

Prepare Revaluation Account and Partners' Capital Accounts.

Q6. Anita, Geeta and Sita were partners in a firm sharing profits and losses in the ratio of 2:2:1. Their Balance Sheet as at 31st March,2022 was as follows:

Balance Sheet of Anita, Geeta and Sita as at 31st March,2022

Liabilities	₹	Assets	₹
Capital A/cs:		Land and Building	4,80,000
Anita		Investments	1,20,000
2,00,000		Debtors	
Geeta	5,00,000	1,50,000	1,40,000
2,00,000	30,000	Less: Provision	1,20,000
Sita	5,00,000	10,000	1,70,000
1,00,000		Stock	
General Reserve	**10,30,000**	Cash at Bank	**10,30,000**
Creditors			

On the above date, Anita retired from the firm and the remaining partners Decided to carry on the business It was agreed to revalue the assets and reassess the liabilities as follows:

(i) Goodwill of the firm was valued at ₹ 3,00,000.

	(ii) Land and building was to be appreciated by ₹ 1,23,000. (iii) Bad Debts amounted to ₹ 20,000. A provision for doubtful debts was to be maintained at 10% on debtors. (iv) Anita was paid ₹ 80,000 immediately by cheque. The balance amount was transferred to her loan Account which was to be paid in two equal instalments along with interest @ 10% p.a. Prepare Revaluation Account and Pastners' Capital Accounts on Anita's retirement. **Q7.** Banwari, Girdhari and Murari are partners in a firm sharing profits and losses in the ratio of 4:5:6. On 31st March,2014, Girdhari retired. On that date the capitals of Banwari, Girdhari and Murari before the necessary adjustments stood at ₹ 2,00,000, ₹ 1,00,000 and ₹ 50,000 respectively. On Girdhari's retirement, goodwill of the firm was valued at ₹ 1,14,000. Revaluation of assets and reassessment of liabilities resulted in a profit of ₹ 6,000. General Reserve in the books of the firm was ₹ 30,000. The amount payable to Girdhari was transferred to his loan Account. Banwari and Murari agreed to pay Girdhari two yearly instalments of ₹ 75,000 each including interest @ 10% p.a. on the outstanding balance during the first two years and the balance including interest in the third year. The firm closes its books on 31st March every year. Prepare Girdhari's Loan Account till it is finally paid showing the working notes clearly.
3.	**BUSINESS STUDIES**
	Q1. With changes in the consumption habits of people, Neelesh, who was running a sweet shop, shifted to the chocolate business. On the eve of Diwali, he offered chocolates in attractive packages at reasonable prices. He anticipated huge demand and created a website choclove.com for taking orders online. He got a lot of orders online and earned huge profits by selling the chocolate. Identify and explain the dimensions of business environment discussed in the above case. **Q2.** A recent cut in the interest on loans announced by the banks encouraged Amit, a science student of Progressive School, to take a loan from State Bank of India to experiment and develop cars to be powered by fuel produced from garbage. He developed such a car and exhibited it in the Science fair organized by the Directorate of Education. He was awarded the first prize for his invention. Identify and explain the dimensions of business environment discussed in the above case. **Q3.** (a) The court passed an order to ban polythene bags. (b) These bags create many environmental problems which affect the life of people. (c) Society at large is more concerned about the quality of life. (d) The government decided to give a subsidy to the jute industry in order to promote this business. (e) As a result, innovative techniques are being developed to manufacture jute bags at low rates. (f) Incomes are rising and people can afford to buy these bags. Identify the different dimensions of business environment by quoting lines from the above particulars. **Q4.** Just after the declaration of the results of the Lok Sabha Elections, 2009, the Bombay Stock Exchange's price index (Sensex) rose by 2100 points in a day.] Identify the environmental factor which led to this rise. **Q5.** The Government of India is seriously thinking of allowing the oil-marketing public sector undertaking to fix their own prices for petrol and diesel. Which economic reform is the reason for this change in the government's policy? **Q6.** It is interesting to know that the menu items of the multinational food chains are customized to suit the general palates of the local people in the region When McDonald's started its business in India in the year 1996, the company went through a complete localization strategy. McDonald's changed its product menu to accommodate the vegetable burger given the large vegetarian population. It also altered its store design and even reduced the product price by close to fifteen per cent. Also, the "Me Aloo Tikki burger" is not available anywhere but in the Indian outlets of Mc Donald's. Identify the relevant feature of business environment being discussed above. **Q7.** Make in India is an initiative launched by the Government of India to encourage national and multinational Companies to manufacture their products in India It focuses on job creation and skill enhancement and is in twenty- five sectors of the economy. Under the initiative, brochures on these sectors and a web portal were released. The initiative aims at high quality standards and minimizing the impact on the environment. It also seeks to attract foreign capital investment in India. In context of the above case: (a) Identify the various dimensions of business environment being referred to by quoting lines from the paragraph. **Q8.** The government wants to raise Rs. 56,500 crores from the sale of stakes in state- owned enterprises National Thermal Power Corporation (NTPC) in the financial year 2016-17. Identify and explain the related concept. **Q9.** After completing his education, Shiva joins his father in their family business of manufacturing cookware. As a businessman, his father is rigid in his approach and has fixed ideas about various issues. He tends to maintain a distance from the factory workers. However, Shiva is more receptive to the needs of the workers and doesn't seem to believe in any class- differences. He believes that the prosperity of their business greatly depends upon the prosperity of their workers and vice versa. At the same time, he has a

good understanding of the business environment. Therefore, he introduces a new range of green pans that provide a healthy cooking surface, as they are Manufactured with all ceramic or silicon coating and are considered safer than the traditional petroleum based nonstick surfaces which may contain toxic substances. Although, the new cookware range is highly priced, he expects a ready market for it as both the purchasing power of people and their preference for better quality products has increased over the years. In the context of the above case:

(a) Identify the nature of management which is being reflected in the different styles of management in practice adopted by Shiva and his father. (Chapter 1)
(b) Name and explain the related principle of scientific management. (Chapter 2)
(c) State the related dimensions of business environment.

Q10. 'COMVIL' is a well-known FMCG (Fast Moving Consumer Goods) company in India However, for the past few years its profitability is diminishing due to the presence of a new company 'PATANIALI'. 'PATAN1ALI' has gradually acquired a reasonable share in a wide variety segments like Soaps, shampoos, detergents, dish wash and oral care. One of the key reasons is that 'PATANJALI' has positioned itself as a natural/Ayurvedic brand and this approach has worked well with the Indian consumer. In order to compete with this threat 'COMVIL' has acquired a premium Ayurvedic brand 'Madhumita' from another group. Moreover, its likely to increase its advertising budget to counter the threat from 'Patanjali'. In the context of the above case:

(a) Identify the related component of the business environment which has contributed effectively towards the success of 'Patanjali'.
(b) Also, state the two ways in which 'COMVIL' has responded to the changes in its business environment.

Q11. As per the directions issued by the Supreme Court, the government passed an order to ban the sale of tobacco products within the area of 200 meters of all educational institutions as:

(a) Its consumption is injurious to health,
(b) People are becoming more conscious about health and fitness, This indicates the government's attitude towards is business.

Identify the business environment under three different dimensions by quoting from above paragraph.

Q12. "RANA Electronics Ltd.' was operating its business in Malaysia. The company started exporting its products to India when the Prime Minister announced relaxation in import duties on electronic items. The company appointed retailers in India who had direct online links with the suppliers to replenish stocks when needed.

Identify and explain the dimensions of business environment discussed in the above case,

Q13. Identify the dimensions of Business Environment in the following cases:

The demonetization move of the government has resulted in the accumulation of lakhs of crores of rupees in the banks. Now the banks will give more loans to the people at lower interest rate. General public can now afford home loans more easily. Small business will now move towards transaction of business affairs in plastic money. This will lead to use of internet, new gadgets, etc. and reduce dependence on cash. Report generation of these transactions will be helpful in acting as proof for the betterment of future business.

Q14. Eco- friendly products are gaining power as the consumers' awareness about environmental issues has increased over the years and they are conscious about choosing products that do not have adverse effects on the environment. They are now more conscious about the carbon emission and climate change effects, and want themselves to be 'seen' as a green advocate among their peers. In such a scenario, it has become a challenge for the companies as they have to not only meet the needs of the consumers but also ensure that their products are safe and environment friendly. As a result, there is growing need for better and advanced technologies to works as a catalyst in this regard.

(a) Identify the relevant feature of business environment being discussed above

4. ECONOMICS

Level 1 (Easy) – 10 Questions

1. Aggregate Demand refers to:
(A) Total production (B) Total planned expenditure on final goods and services
(C) National Income (D) Total exports

2. The relationship between increase in investment and increase in income is called the ________.

3. When Aggregate Demand is less than Aggregate Supply at full employment, it is called:
(A) Excess Demand (B) Deficient Demand
(C) Inflation (D) Appreciation

4. The value of MPC always lies between ___ and ___.

5. Assertion (A): Multiplier is directly related to MPC.
Reason (R): Higher MPC means a larger proportion of additional income is spent, leading to multiple rounds of income generation.

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

6. Aggregate Supply is measured by the value of ____ produced in an economy.
7. Multiplier is inversely related to:
(A) MPC (B) MPS (C) Investment (D) Income
8. Excess Demand causes ____ gap.
9. Which component is not included in Aggregate Demand?
(A) Consumption
(B) Investment
(C) Government Expenditure
(D) Depreciation
10. State True or False. Aggregate Supply is always equal to National Income in an economy.

Level 2 (Moderate) – 10 Questions
(Board-oriented Numerical + Reasoning + Short Answer)

1. Explain the monetary measures correcting Deficient demand.
2. If MPS = 0.20, find the value of Multiplier. Give Savings function when consumption at zero level of income is 50 crore.
3. Investment increases by ₹100 crore and MPC = 0.80. Calculate the increase in National Income.
4. Differentiate between Aggregate Demand and Aggregate Supply. (Any two points)
5. Explain any two causes of Deficient Demand.
6. Explain any two causes of Excess Demand.
7. Difference between Monetary and Fiscal Policy.
8. What is Deflationary Gap? Explain with the help of a diagram.
9. Using a well labelled diagram, show how savings curve can be derived from consumption curve.
10. Using a well labelled diagram, show how consumption curve can be derived from savings curve.

Level 3 (Difficult) – 10 Questions
(CBSE Board Case-based + HOTS + Long Answer + Numerssicals)

1. Define Effective Demand. Discuss how demand can be restored if ex-ante saving is less than ex-ante investment.
2. Consumption increases by ₹300 crore and MPC = 0.60. Find:
(i) Multiplier
(ii) Change in National Income due to an increase in investment of ₹150 crore.
3. Explain the process through which Deficient Demand leads to unemployment. Support your answer with a suitable diagram.
4. Explain the mechanism through which Excess Demand results in Inflationary Gap. Use a diagram.
5. A country's economy is experiencing persistent inflation because Aggregate Demand exceeds Aggregate Supply. Suggest four policy measures to correct the situation.
6. Find Change in savings when 2/3rd of income is always spent as consumption expenditure and current income is 50% more than the initial income of ₹ 50,000. [Ans=₹ 8333.33]
7. Given below is the consumption function in an economy: C= 100 + 0.5Y. With the help of numerical example show that in this economy as income increases APC will decrease.
8. Initial Investment = ₹500 crore Multiplier = 5
Calculate the increase in National Income.
9. Case Study (CBSE Pattern)
The government increased public investment to create employment and improve infrastructure. As a result, people's incomes increased, leading to higher spending on goods and services. This further increased the incomes of producers, creating a chain reaction throughout the economy.
Answer the following questions:
(i) Name the concept explained in the above case. (1 Mark)
(ii) How does a higher Marginal Propensity to Consume (MPC) affect this concept? (1 Mark)
(iii) Why does an increase in investment lead to a multiple increase in national income? (1 Mark)
10. In developing countries like India, people spend a high percentage of their income so that APC and MPC are high. Yet, value of the multiplier is low. Why?

5.	INFORMATICS PRACTICES

DataFrame and SQL

1. Create the following DataFrame using **Dictionary of Lists**.

Name	Class	Eng	B.st
Amit	XII	85	78
Riya	XII	91	89
Karan	XII	76	82
Sneha	XII	88	90
Ankit	XII	80	75

2. Create the above DataFrame using **List of Lists**, **List of Dictionaries**, **Dictionary of Series**.
3. Create the same DataFrame with custom row labels
4. S1 S2 S3 S4 S5
5. Create an empty DataFrame and then add the above data into it. Use the DataFrame created above.
6. Display all column names.
7. Display row labels.
8. Display the shape of the DataFrame.
9. Display the total number of elements.
10. Display the number of dimensions.
11. Display the data types of every column.
12. Display the values of the DataFrame.
13. Display the transpose of the DataFrame.
14. Rename the column **Eng** to **English**.
15. Rename row labels
    S1→A
    S2→B
    S3→C
    S4→D
    S5→E
16. Rename both row labels and column names together.
17. Rename all columns as
    Student Name
    Class
    English
    Business Studies
18. Set **Name** as the index.
19. Reset the index.
20. Display only the **Name** column.
21. Display only students scoring more than 80 in English.
22. Display only Name and Business Studies columns.
23. Change the index to Roll Number and reset it back.
24. Insert a Total column after Business Studies.
25. Delete the last row.
26. Save only Name and English columns into a new CSV file.
27. Read the CSV file and display the last three records.
28. Replace all English marks less than 80 with 80.
29. Rename the Name column to Student_Name.
30. Display only rows S2 to S4 and columns English and Business Studies.

Database Query using SQL

Table Name: STUDENT

Name	Class	Stream	Age	Eng	Maths
Aman	XII	Science	17	85	92
Riya	XII	Commerce	18	78	70
Mohit	XI	Science	16	88	95
Neha	XII	Humanities	17	90	68
Arjun	XI	Commerce	16	76	72

Simran	XII	Science	18	81	89
Karan	XI	Science	17	69	74
Priya	XII	Commerce	17	92	80
Rahul	XI	Humanities	16	74	65
Sneha	XII	Science	18	87	96

Q1. Create the above table **STUDENT** with appropriate data types.
Q2. Insert all the above records into the STUDENT table.
Q3. Display all records of the STUDENT table.
Q4. Display Name and Stream of all students.
Q5. Display details of students whose Stream is 'Science'.
Q6. Display Name and Maths marks of students studying in Class XII.
Q7. Display Name and ROUND(Eng).
Q8. Display Name and left(Maths,3).
Q9. Display Name and instr(stream, 'I').
Q10. Display Name and MOD(Maths,5).
Q11. Display Name and POWER(2,3).
Q12. Display student names in uppercase.
Q13. Display student names in lowercase.
Q14. Display first three characters of each student's name.
Q15. Display the length of each student's name.
Q16. Display Name and concatenate Name with Stream.
Q17. Display current date.
Q18. Display current date and current time.
Q19. Display all students sorted by Name.
Q20. Display students sorted by Maths marks in descending order.
Q21. Display students sorted first by Stream and then by Eng marks descending.
Q22. Display the average English marks stream-wise.
Q23. Display the maximum Maths marks class-wise.
Q24. Display the total number of students in each Stream.
Q25. Display Stream-wise average English marks where average is greater than 80.
Q26. Display Class-wise maximum Maths marks where maximum marks are greater than 90.

6. PHYSICAL EDUCATION

Easy Level (7 Questions)

1. Define child growth and development.
2. What is the meaning of anatomy?
3. What is physiology?
4. Name any two benefits of sports participation for women.
5. What is the Female Athlete Triad?
6. Name the three types of muscles in the human body.
7. What is the function of the skeletal system?

Medium Level (7 Questions)

8. Differentiate between growth and development.
9. Explain the importance of sports participation for children.
10. Describe the components of the Female Athlete Triad.
11. Explain the functions of the muscular system during physical activity.
12. Discuss the role of bones and joints in movement.
13. Explain the structure and functions of the respiratory system during exercise.
14. Describe the effects of regular exercise on the cardiovascular system.

Hard Level (6 Questions)

15. Discuss the physical, psychological, and social benefits of sports participation for children and women.
16. Explain the causes, symptoms, and prevention of the Female Athlete Triad.
17. Analyse the adaptations of the cardiovascular and respiratory systems to regular physical

	training. 18. Explain the structure and functions of the human skeletal system and its importance in sports performance. 19. Compare voluntary and involuntary muscles with suitable examples related to sports. 20. Discuss the role of anatomy and physiology in improving sports performance and preventing sports injuries.
7.	**APPLIED MATHS**

Level 1:

1. If x, y, z are positive real numbers, then find the least value of (x + y) (y + z) (z + x).

2. Solve the following inequalities for real x:

(i) $\frac{5-2x}{3} \leq \frac{x}{6} - 5$. (ii) $7 \leq \frac{3x+11}{2} \leq 11$.

3. If $x\sqrt{1+y} + y\sqrt{1+x} = 0$, $x \neq y$, then prove that $\frac{dy}{dx} = -\frac{1}{(1+x)^2}$.

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

5. If $y = (a + bx)e^{cx}$ prove that $y_2 - 2cy_1 + c^2 y = 0$

6. It takes 6 hours for three pipes, X, Y and Z to fill a tank. When the three worked together for 2 hours, Z was closed and, X and Y filled the remaining tank in 7 hours. How many hours would it take Z alone to fill the tank?

7. If two pipes can fill a tank in 24 and 20 minutes respectively and another pipe can empty 3 gallons of water per minute from that tank. When all the three pipes are working together, it takes 15 minutes to fill the tank. What is the capacity of the tank?

8. Pipe A can fill the tank 3 times faster in comparison to pipe B. It takes 36 minutes for pipe A and B to fill the tank together. How much time will pipe B alone take to fill the tank?

9. If X can run 48m and Y 42m, then in a race of 1km, X beats Y by

10. In a race, A beats B by 15 metres and C by 29 metres. If B and C run over the course together, B wins by 15 metres. What is the length of the course?

Level 2

11. How many litres of water will have to be added to 1125 litres of the 45% solution of acid so that the resulting mixture will contain more than 25% but less than 30% acid content?

12. A manufacturer has 600 litres of 12% solution of acid. How many litres of 30% acid solution must be added to it so that the acid content in the resulting mixture will be more than 15% but less than 18% acid?

13. Solve the following inequalities:

(i) $2x + 1 < |2x + 1|$ (ii) $|3x| \geq |6 - 3x|$

14. Solve the systems of linear inequalities graphically:

1. $x + y \leq 6,\ x + y \geq 4$.
2. $2x + 3y < 12,\ x \geq 2,\ y \geq 1$.

15. If $y = \left(\frac{x+1}{x-1}\right)^{\sqrt{x}}$, find $\frac{dy}{dx}$.

Level 3

16. Differentiate: $y = \left(\frac{x^2+1}{x^2-1}\right)^{\sqrt{x^2+1}}$.

17. If $y = \ln\left(\frac{\sqrt{1+x^2}+x}{\sqrt{1+x^2}-x}\right)$, find $\frac{dy}{dx}$.

18. If $(x^2 + y^2)^2 = 16xy$, find $\frac{dy}{dx}$.

19. Find $\frac{d^2y}{dx^2}$, if $y = x^x$.

20. If $y = \ln\left(x+\sqrt{x^2-1}\right)$, show that $(1 - x^2)\frac{d^2y}{dx^2} - x\frac{dy}{dx} = 0$.

8.	**MARKETING**

Level 1: Knowledge & Recall (Basic)

This section tests fundamental definitions, core concepts, and direct factual recall based on the curriculum.

1. Define 'Price' in marketing terms. Provide the classic definition given by Philip Kotler.
2. What are the two major subdivisions under the Profitability Objectives of a firm's pricing policy?
3. Name any three internal (controllable) factors that directly influence a company's pricing decision.
4. Distinguish briefly between a cost floor and a demand ceiling in determining price.
5. Explain the concept of Psychological Odd Pricing with a practical market example.
6. What is meant by Everyday Low Pricing (EDLP)? Name a retail brand that successfully utilizes this strategy.
7. Define Price Skimming and state the ideal market scenario required to deploy it.
8. What does BEP (Break-Even Point) signify for a manufacturing business?
9. Define the term Loss Leader and explain why retail supermarkets use this method.
10. State the mathematical formula used to calculate the selling price under the Cost-Plus Pricing method.

Level 2: Application & Analysis (Intermediate)

This section requires applying pricing strategies to real-world scenarios, understanding relationships between factors, and analyzing operational mechanics.

1. Scenario Analysis: A premium tech brand launches a budget smartphone but charges significantly higher prices for its official protective cases and replacement chargers. Identify and explain this specific pricing method.
2. Compare and contrast Market Skimming and Market Penetration strategies across three dimensions: Initial Price, Target Consumer Segment, and Production Volume.
3. How does Demand Elasticity (an external factor) limit a firm's freedom to maximize profits through sudden price hikes?
4. Explain how Product Differentiation gives a firm the leverage to set prices independently of its closest competitors.
5. Mathematical Application: A manufacturing firm has a Total Fixed Cost of ₹5,000,000. The Variable Cost per unit is ₹150, and they plan to sell the product at ₹250 per unit. Calculate the Break-Even Point (BEP) in terms of unit volume.
6. Describe the 5 Dimensions of Discriminatory / Differential Pricing and explain how a railway system utilizes Time-based or Locational price differentiation.
7. Why is price considered the only active revenue generator among the 4 Ps of the Marketing Mix? Explain from the firm's perspective.
8. A leading luxury watch brand prices its new collection excessively high despite low manufacturing overheads. Analyze how Prestige Pricing Lines alter the consumer's perception of product quality.
9. Explain how Resale Price Maintenance (RPM) acts as a control mechanism between a manufacturer and its distribution intermediaries (wholesalers/retailers).
10. Differentiate between internal Corporate Objectives and external Supplier Power, illustrating how both simultaneously force a firm to adjust its pricing boundaries.

Level 3: Evaluation, Case Studies & HOTS (Advanced)

This section challenges high-order thinking skills, critical strategic evaluation, and comprehensive syntheses of multi-variable market conditions.

1. Case Study: Brand A enters a highly saturated consumer electronics market dominated by established legacy rivals. Instead of competing on price cuts, Brand A introduces a robust loyalty program, luxury packaging, and custom user settings to justify a 15% price premium. Evaluate this approach using the concept of Perceived Value-Based Pricing.
2. "If prices are too high, the business is lost. If prices are too low, the firm may be lost." Critically evaluate this statement by discussing the financial risks of underpricing versus the competitive risks of over-pricing.
3. Analyze how unexpected changes in macro-environmental external variables—specifically inflationary/slump cycles and regulatory/legal laws—can completely disrupt a firm's long-term internal pricing projections.
4. Variant Engineering: Using automotive or smartphone markets (e.g., Samsung Mid-tier A-series vs. Flagship S-series) as a reference framework, evaluate how a firm uses Price Lining Tiers to successfully capture diverse economic segments without diluting its core brand identity.
5. Examine the strategic rationale behind Combo Product Bundling (e.g., fast-food "$4 Value Meals"). How does combining complementary slow-moving items with high-demand items

	optimize a firm’s total inventory and overall margin mix? **6.** Compare a Sealed Bid Pricing framework used in government/corporate industrial tenders with open Competition-Oriented Pricing in consumer retail. Which method prioritizes cost structures over market dynamics? **7.** Employability skills **8.** How can motivation and a positive attitude be harnessed to enhance self-management skills in school or the workplace? **9.** What are the advantages of being able to identify the sources of your motivation and draw inspiration from them? **10.** How does personality influence the way individuals interact with and influence others in various contexts? **11.** Can you think of real-life examples where a person's personality traits have positively or negatively affected their relationships and work performance? **12.** Why is it important to differentiate between intrinsic and extrinsic motivation, and how can an understanding of these types of motivation improve one's goal setting and achievement?