

GANGA INTERNATIONAL SCHOOL
HOLIDAY HOMEWORK
CLASS – XII (COMMERCE)

ENGLISH

The students are suggested to regularize their study schedule during holidays, by allocating fixed time to every subject, completing 3 topics every day will let you enjoy the vacation without any stress. The holiday homework is to be submitted on the first day. Absolutely no extension will be given for submitting the home work. **HOLIDAY HOME WORK IS TO BE DONE IN A SEPARATE NOTE BOOK**

1. Read the novel ‘Invisible Man’, Make notes on each chapter using abbreviations.
2. Make a mind map of the novel by writing the chapter number, title and four main points on white sheet with bright sketch pens. It will help you to memorize the novel easily for the oral test/quiz.
3. Watch the following movies:
 - My Fair Lady
 - Sound of Music
 - Gravity and Theory of Everything
 - Evans Almighty
 - Life of Pie
 - Despicable Me.

Write a critical appreciation mentioning the moral of any two movies.

4. Cut and paste five Display Advertisements.
5. Cut and paste five Posters on Social issues.
6. Read the newspaper daily and cut and paste any five positive and negative reports and write them down in your notebook.
7. Read ‘Wings of Fire’ and in 200 hundred words write summary of it.
8. Being in a crucial year of your life, it becomes imperative for you to make a roadmap of the career you would like to pursue. Make a flow chart of highlighting the names of colleges/institutions offering the courses of your interest. Percentage required for admission. Future prospects and other relevant information.
9. Make a chart on the poems of the following poets.
 - Roll No. : 1-10- Robert Frost
 - Roll No. : 11-20 -William Wordsworth
 - Roll No. : 21-30- P B Shelly
 - Roll No. : 31- 40- S T Coleridge
10. Make working model on any topic of your choice from grammar.
11. Write a biography in 200-250 words on any writer from your text books.
12. Follow the new innovations and achievements by the youngsters trending on social medial.
13. Find the story of ‘Forest man of India write it in your own words.
14. Write a speech on the degrading moral situation of the present form of society.
15. “Animals in the zoos” – How far do you support this? Write a speech on this.
16. “Newspapers and Electronics media work as the face of different political parties”. Write a Speech either in for or against the topic.
17. Write a speech on the 5 things you want to change about your country.
18. Write a speech on the dire necessity of the change in present politics in India.
19. Write a character sketch of Mrs Hall, give examples from the text to illustrate that she is a mercenary.
20. Write a character sketch of Griffin, explaining whether he is a genius or a mad man.
21. Write a character sketch of Marvel, how does he prove to be smarter than anyone else, illustrate.

22. Kemp is an illustration of science with morality, explain.
23. Collect 20 inspiring quotations by great thinkers on success, aims humility, honesty, importance of reading, importance of education and importance of parents, with the name of the source, your name and admission no. and date of birth. These will be published in Akashganga.
24. Collect five inspiring short stories with moral lesson for publication in the school magazine.
25. Write/ collect inspiring poems on every day themes.

ACCOUNTANCY

A. Do the comprehensive project given by teacher.

B. Fundamentals of Partnership, Change in Profit Sharing and Admission of a Partner.

- 1 A and B are partners sharing profits and losses equally. Business is being carried from premises owned by A on a yearly rent of Rs.24000. A is entitled to salary of Rs.1,20,000 per annum and B is to get commission @ 5% of net sales, which during the year was Rs.30,00,000. Net profit for the year ended 31st March, 2016 before providing for rent was Rs. 5,00,000. You are required to draw profit and loss appropriation account.
- 2 A and B are partners sharing profits equally. They admit C into partnership, C paying only 60,000 for premium out of his share of Rs.1,08,000 for 1/4th share of profit. Goodwill account appears in the books at Rs.3,00,000. Give the necessary journal entries.
- 3 A and B are partners with capitals of Rs.60,000 and Rs.20,000 respectively on 1st April,2015. The trading Profit for the year ended 31st March, 2016 was Rs.24,000. Interest on capitals is to be allowed @ 6% p.a. B is entitled to a salary of Rs.6,000 p.a. The drawings of the partners were Rs.6,000 and Rs.4,000 respectively. Interest on drawings for A being Rs.200 and for B Rs.100. Show how profit will be divided between A and B and also show the capital accounts if they are fixed.
- 4 A and B are partners sharing profits and losses in ratio of 3:1. On 1st April, 2015 their capitals were A Rs.50,000 and B Rs.30,000. During the year ended 31st March, 2016, they earned net profit of Rs.74,000. The terms of partnership are :
 - a) Interest on capital is to be allowed at 6% p.a.
 - b) A will get commission @ 2% on turnover.
 - c) B will get a salary of Rs.500 per month.
 - d) B will get commission of 5% on profits after deduction of interest, salary and commission (including his own commission)
 - e) A is entitled to a rent of Rs. 2000 per month for the use of his premises by the firm. It is paid to him by cheque at the end of every month.
 Partners drawings for the year were A – Rs. 8000 and B – Rs. 6000. Turnover for the year was Rs.3,00,000. After considering the above factors You are required to prepare Profit and Loss Appropriation Account and Capital Accounts of the partners.
- 5 A and B are partners in a firm sharing profits and losses in the ratio of 3:2. The following was the Balance sheet of the firm as on 31.03.2010:

Liabilities	Rs.	Assets	Rs.
<u>Capitals</u>		Sundry Assets	80,000
A	60,000		
B	20,000		
	80,000		80,000

The profits of Rs.30,000 for the year ended 31.03.2010 were divided between the partners without allowing interest on capital @ 12% and salary to A @ Rs. 1,000 per month. During the year, A withdrew

Rs.10,000 and B Rs. 20,000 . Pass necessary adjustment entries.

- 6 X,Y and Z shared the profits of Rs.7,50,000 in the ratio of 2 :2:1 without providing for interest on Y's Loan. Y granted a loan of Rs.5,00,000 in the beginning of accounting year, whereas the partnership deed is silent on interest on loan and the profit sharing ratio. Give necessary adjustment entry.
- 7 A , B and C entered into a partnership on October 1 , 2004 to share profits and losses in the ratio of 3:2:1. A , however, personally guaranteed that C's share of profit after charging interest on capital at 5% p.a. would not be less than Rs. 30, 000 in any year. The capital contributions were A : Rs. 3 lakhs, B : Rs. 2 lakhs; and C : Rs. 1 lakh . The profits for the year ended 31st march 2005 were Rs. 1,20,000. Show distribution of profits.
- 8 A, B and C are partners in a firm sharing profits and losses in ratio of 2 : 2:1. Their Capitals are Rs.1 lac; 80,000 and Rs.70,000 respectively. For the year 2015-16, interest on capital was credited to them @ 9% instead of 12%. Give the adjustment journal entry.
- 9 Ajay and Mohan were partners in a firm. The partnership agreement provided that interest on drawing was to be charged @ 12% p.a. Ajay had withdrawn the following amounts during the year ended 31.12.2005.

<u>Date</u>	<u>Amount Withdrawn</u>
01.01.2005	Rs. 10,000
31.03.2005	Rs. 16,000
01.07.2005	Rs. 20,000
31.12.2005	Rs.4,000

Calculate interest on Ajay's drawing

- 10 S, K and R are partners in a firm sharing profits in the ratio of 3:2:1 respectively. R wants that he should share profits of the firm equally in future. He further wants that change in profit sharing should be applicable retrospectively for the last three years. Other partners have no objection to this. The profits for the last three years were Rs.60,000; Rs. 47,000; and Rs.55,000. Pass adjusting entry.
11. P,Q and R are partners in a firm sharing profits in the ratio of 2:2:1 on 1.4.2007 the partners decided to share future profits in the ratio of 3:2:1. On that day balance sheet of the firm shows General Reserve of Rs 50,000. Pass entry for distribution of reserve.
- 12 On 1st April, 2014, an existing firm had asset of Rs.75,000 including cash of Rs.5,000. The partners' capital accounts showed a balance of Rs.60,000 and the reserve constituted the rest. If normal rate of return is 10 % and the goodwill of the firm is valued at Rs.24,000 at four years' purchase of super profit, find the average profit of the firm.
- 13 X, Y and Z are partners sharing profits and losses in the ratio of 5 : 3: 2. They decide to share future profits and losses in the ratio of 2:3:5 with effect from 1st April 2016. Following items appear in the Balance Sheet as at 31st March, 2016.

General Reserve	Rs.75,000	Advertisement Suspense A/c(Dr)	Rs50,000
Contingency Reserve	Rs.12,500	Profit and Loss Account(Cr)	Rs.37,500

Pass necessary journal entries.

- 14 a) A and B share profits and losses in the ratio of 4:3, they admit C with 3/7th share; which he gets 2/7th from A and 1/7 from B. What is the new profit sharing ratio?
- b) A & B are partners sharing profits in the ratio of 3:2. C is admitted. C gets 3/20th from A and 1/20th from B. Calculate new and sacrifice ratio.
- c) X & Y are partners share profits in the ratio of 5:3. Z the new partner gets 1/5 of X's share and 1/3rd of Y's share. Calculate new ratio.
- d) P & Q are partners sharing profits in the ratio of 5:3. They admit R for 1/4th share and agree to share between them in the ratio of 2:1 in future. Calculate new ratio.

- 15 A and B were partners in the ratio of 7:5. C was admitted for $\frac{1}{6}$ th share. The new ratio was decided as 13:7:4 respectively. C brings Rs. 2,00,000 as his share of capital but was not able to bring any cash for his share of goodwill/premium. The firm's goodwill at the time of C's admission was valued at Rs.1,92,000. Pass journal entries.
- 16 P and Q were partners in the ratio of 5 : 3. R was admitted for $\frac{1}{5}$ th share which he will acquire $\frac{1}{6}$ th from P and $\frac{1}{30}$ from Q. R brings Rs.15,000 as his share of goodwill out of his share of Rs.27,000. No goodwill appears in the books of the firm. Pass journal entries and also find out the new profit sharing ratio.
- 17 Usha and Asha are partners in a firm sharing profits in the ratio of 3 :2. Their balance sheet as at 31st March, 2016 was:

Liabilities	Amt	Assets	Amt
Creditors	10,000	Debtors	22,000
Provident Fund	8,000	Less Provision	<u>1,000</u>
General Reserve	30,000	for doubtful debts	
Workmen Compensation Reserve	15,000	Stock	11,000
Capital A/c's		Bank	21,000
Usha	15,000	Land and Building	18,000
Asha	<u>10,000</u>	Plant and Machinery	12,000
		Advertisement Expenditure	5,000
	88,000		88,000

They admit Tanya as a partner on 1st April, 2016 for $\frac{1}{6}$ th share in profits. It was decided that

- Value of land and building be increased by Rs.3,000.
- Value of stock be increased by Rs.2,500.
- Provision for doubtful debts be increased by Rs.1500
- Liability for Workmen compensation reserve was determined at Rs. 20,000
- Tanya brought Rs. 15,000 as capital and premium of Rs. 10,000 in cash.

Prepare Revaluation Account, Partners' Capital Accounts and the Balance sheet of the new firm.

- 18 Following was the balance sheet of A and B who were sharing profits in the ratio of 2:1 as at 31st March, 2016:

Liabilities	Amt	Assets	Amt
Sundry Creditors	32,950	Building	25,000
Capitals		Plant and machinery	17,500
A	Rs.15,000	Stock	10,000
B	<u>Rs.10,000</u>	Sundry Debtors	4,850
	25,000	Cash in hand	600

	57,950		57,950
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They agreed to admit C into the partnership on the following terms:

- C was to bring Rs.7,500 as his capital and Rs.3,000 as goodwill for 1/4th share in the firm.
- Values of Stock and Plant and Machinery were to be reduced by 5%.
- A reserve was to be created in respect of Sundry debtors Rs.375.
- Building Account was to be appreciated by 10%

Pass necessary journal entries to give effect to the arrangements. Prepare Revaluation Account, Capital accounts and balance sheet of the new firm.

- 19 a) A and B are partners in a firm sharing profits and losses in the ratio of 3:2. They admit C into partnership for 1/5th share. C brings in Rs.30,000 as capital and Rs. 10,000 as goodwill. At the time of admission of C, goodwill appears in the balance sheet of A and B at Rs.3,000. The new profit sharing ratio is 5:3:2. Pass journal entries.
- b) A, B and C are partners sharing profits and losses in ratio of 2 : 2:1. D is admitted as a new partner for 1/6th share. C will retain his original share. Calculate new profit sharing ratio and sacrificing ratio.
- 20 Ravi and Mohan were partners in a firm sharing profits in ratio of 7:5. Their respective fixed capitals were Ravi Rs.10,00,000 and Mohan Rs. 7,00,000. The partnership deed provided for the following:
- Interest on capital @ 12% p.a.
 - Ravi's salary Rs.6000 per month and Mohan's salary Rs.60,000 per year.

The profit for the year ended 31-3-2007 was Rs.5,04,000 which was distributed equally, without providing for the above. Pass an adjusting entry.

- 21 A, B and C were partners in the ratio of 3:2:1. On 1st January 2005, they have decided to share profit in future in equal proportion. Goodwill is to be valued at 2 years purchase of the average of last three years profits. The past three years' profits were as follows:

Year	Profits(Rs.)
2002	45,000
2003	60,000
2004	75,000

Pass necessary journal entry for the adjustment of goodwill.

- 22 Arti and Bharti are partners in a firm sharing profits in 3:2 ratio. They admitted Sarthi as a new partner and new profit sharing ratio will be 2:1:1. Sarthi brought Rs. 5,00,000 as capital and Rs.1,00,000 for her share of premium(goodwill). Goodwill already appeared in the books of Arti and Bharti at Rs.60,000. Pass the necessary journal entries in the books of the new firm for the above transactions.
- 23 Lata and Mamta are partners with capitals of Rs.3,00,000 and Rs.2,00,000 respectively sharing profits as Lata 70% and Mamta 30%. During the year ended 31st March 2016 they earned a profit of Rs. 2,26,440 before allowing interest on partner's loan. The terms of partnership are as follows:
- Interest on capital is to be allowed @ 7% p.a.
 - Lata to get a salary of Rs.2,500 per month
 - Interest on Mamta's Loan account of Rs.80,000 for the whole year.
 - Interest on drawings of partners at 8% per annum. Drawings being Lata Rs.36,000 and Mamta Rs.48,000 .
 - 1/10th of the distributable profit should be transferred to General Reserve. Prepare the Profit and Loss Appropriation Account

- 24 Usha and Asha are partners in a firm sharing profits in ratio of 3:2. Their balance sheet as at 31st March, 2016 was:

Liabilities		Amt	Assets		Amt
Creditors		27,000	Cash		24,000
General Reserve		18,000	Debtors		48,000
Bills Payable		5,000	Less: Provision for debt		<u>4,800</u>
Capital A/cs			Stock		30,000
Usha	40,000		Patents		7,400
Asha	<u>35,000</u>		Building		20,400
		75,000			
		1,25,000			1,25,000

Neelam is admitted into the partnership giving her 1/5th share in profits. Neelam is to bring Rs.30,000 as her capital and 10,000 as her share of premium.

- i) Stock to be reduced by 10% and the provision for doubtful debts be reduced by Rs. 2,400.
 - ii) Patents to be valueless
 - iii) There was a claim against the firm for damages amounting to Rs.2,000. The claim has now been accepted .
- Prepare Revaluation Account, Capital Accounts and Balance sheet of the new firm.

- 25 A and B are partners sharing profits in the ratio of 3:2. They admit C into the partnership with 1/4th share in future profits. The new profit sharing ratio is 5 : 4 : 3. C brings into business Rs.50,000 for his capital but could not bring amount for goodwill. The firm's goodwill on C's admission was valued at Rs.48,000. Pass journal entries.

BUSINESS STUDIES

Solve the following problems:

1. Kamal, Khan and David are partners in a firm engaged in the distribution of dairy products in Madhya Pradesh. Kamal is a holder of Senior Secondary School Certificate from Central Board of Secondary Education with Business Studies as one of his elective subjects. Khan had done his post – graduation in Hindi literature and David in Dairy Farming. One day there was a serious discussion between Khan and David regarding the nature of 'Management as a Science'. Khan argued that Management was not a science whereas David was of the opinion that Management was a science. Kamal intervened and corrected both Khan and David about the nature of Management as a Science with the help of his knowledge of Business Studies.

Explain how Kamal would have been able to satisfy both Khan and David.

2. In ABC Ltd. the purchase department purchased 15 tons of raw material for the production department. However, the production department required only 10 tons. Due to this reason, goods were over – produced and were not accepted by sales department. As a result, some goods remained unsold. Which aspect of management is lacking in this case?

3. Pramod Ltd. is a highly reputed company. Different functions are performed by different people in this company, who are bound together in a hierarchy of relationships. Each person in the hierarchy is responsible for

successful completion of a particular task. Mr. Gurpreet is responsible for the welfare and survival to the organisation. He formulates overall organizational goals and strategies for their achievement. Mr. Rahul ensures that quality of output is maintained, wastage of materials is minimized and safety standards are maintained. Mr. Savinder assigns necessary duties and responsibilities to the personnel and motivates them to achieve desired objectives.

At what levels of management are Mr. Gurpreet Mr. Rahul and Mr. Savinder working in Pramod Ltd.? Justify your answer.

4. The management of Kavita Ltd. strongly believes that the members of an organisation should work towards fulfilling the common organisational goals. This requires team work and integration of efforts of all individuals, departments and specialists. This is because all the individuals and departments depend on each other for information and resources to perform their respective activities. Managers need to reconcile differences in approach, timing, effort or interest. At the same time it should enable all its members to grow and develop. Thus, there is a need to harmonise individual goals and organisational goals.

- (a) Which concept of management is highlighted in the above description.
- (b) State any three features of the concept identified in (a).
- (c) Identify and explain the characteristic of management which is reflected from the above description.

5. Sunaina is the branch manager of United Handicraft Pvt. Ltd. The company's objective is to promote the sales of Indian handloom and handicraft products. Its sells fabrics, furnishings, readymade and household items are made out of traditional Indian fabrics. Sunaina decides quantities, variety, colour and texture of all the above items and then allocates resources for their purchase from different suppliers. She appoints a team of designers and crafts people in the company, who developed some prints for bed covers in bright colours of silk. Although they looked very impressive, they were more expensive than they had planned to sell. Average customer could not afford to buy it. Praising their effort, Sunaina suggested that they should keep the silk bed covers for special occasions like Diwali and Christmas and offer the cotton bed covers on a regular basis to keep costs under control.

Identify the functions of management which Sunaina performs by quoting the lines from the above case.

6. Select a business enterprise with which you are familiar. From your recollection of current events (events you may have read about in newspaper or magazines or have heard about on television or radio) identify some of the important environmental force, which have had impact on this enterprise.

7. A company wants to modernize its product. What functions or decisions should be taken by each level to carry on this task?

8. From business magazine, annual reports, newspaper or internet find out what changes are taking place in companies relating to corporate governance, production practices etc. prepare a scrapbook. Prepare a report of the same.

9. Visit a factory. Find about their production system and method of wage payment. Prepare a report.

10. Visit a business organization and study its administration. Prepare a report on Principles of Management and write the comments whether the organization is following the Principles of Management or not.

11. Draw a diagram depicting the divisional structure of your school.

12. What does the term span of management refer to?

13. The Court passed an order to ban polythene bags as

- (i) The bags are creating many environmental problems which affect the life of people in general.
- (ii) Society in general is more concerned about quality of life.

The Government decided to give subsidy to jute industry to promote this business:

Innovative techniques are being developed to manufacture jute bags at low rates. Incomes are rising and people can afford to buy these bags.

Identify the different dimensions of Business Environment by quoting the lines from the above particulars.

14. Navya is the marketing manager of a company selling mobile phones. She plans the target sale of 2000 mobile phones per month. She allocates necessary resources to execute the plan. She has six salesmen working under her. She works with them, guiding and motivating them to achieve the target sales. At the end of the month, after comparison of actual sales with the target sales she found that actual sales exceeded the target sales. She rewards the efficient employees to motivate them.

(a) How does Navya prove the importance of management ?

(b) Also state any two values which she wants to communicate to the society by her behaviour.

15. Divya, a Class – XII commerce student, just attended her first lecture of business studies wherein she was taught, “all the managers working together in an organization constitute management.” She goes through her book and finds a point that ‘management is an intangible force.

After considering this point she is of the view that the word ‘in’ is wrongly included as managers can be seen. So, according to her, management is a tangible force. Do you support her view? Give reason.

16. The production manager of garment manufacturing asked the foreman to achieve a target production of 100 shirts per day. But he did not give him the authority to requisition of tools and materials from the stores department. Can the production manager blame the foreman if he is not able to achieve the desired target? Explain briefly the principle relating to the situation.

17. A manager should have the right to punish a subordinate for willfully not obeying a legitimate order but only after sufficient opportunity has been given to his or her case. Name the management principle highlighted here.

18. In the marketing department of ABC Electronics Limited, the members of the sales team, get guidance from sales supervisor as under –

(a) For prices, discounts, etc. from Supervisor – A

(b) For quality of different brands from Supervisor – B

(c) For the details of different distributors from Supervisor – C

On the basis of the above details, mention the name of the principle of management and technique of scientific management which have been followed or violated and how?

19. The purchase manager of XYZ Ltd. gave order to supply raw material @ Rs. 1,200 per quintal to his relative while same quality raw material is available @ Rs. 1,000 per quintal by another supplier. Which principle of management is being violated in the given case?

20. The production manager of Anuj Ltd. instructs a salesman to go slow in selling the product, while the marketing manager is insisting on fast selling to reach the target. Which principle of management is being violated here?

21. Premier Publications a book publishing company, identifies ‘CBSE new design of question paper’ and an opportunity early and publishes it book as per that changed CBSE pattern much before its competitors. Which environment awareness is being identified by Premier Publications?

22. The government encouraged foreign company to invest in some sectors of retailing. The argument is:

(a) Customer can purchase a product of these companies as their incomes are rising.

(b) It will be increase in innovations which will provide new way of reducing goods. This will ultimately improve the quality of life.

Identify the 'Business Environment' under four different dimensions coaching the line from the above description.

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

- (a) Its consumption is injurious to health.
- (b) People are becoming more conscious about health and fitness.

It is indicate the government's attitude toward the business. There is a fall in government revenues.

Identify the 'Business Environment' under four different dimensions quoting the lines from the above para.

24. The Finance Minister reduced the repo rate to overcome recession. Which dimension of business environment is highlighted by the statement?

25. The Reserve Bank of India (RBI) increases the cache river freight (CRR) by 0.25 basis points to overcome the inflationary trends in the economy. Identify the dimension of business environment highlighted by the statement.

ECONOMICS

Introduction and Central Problems of an Economy

QUESTION SET –I

Q1. Define the following concepts:

- i. Micro Economics
- ii. Macro Economics
- iii. Positive Economics
- iv. Normative Economics
- v. Economic Problems
- vi. Market Economy
- vii. Centrally Planned Economy
- viii. Production Possibility Curve
- ix. Opportunity Cost
- x. Marginal Opportunity Cost

QUESTION SET-II

Q2. Defend or refute the following statements. Write 'Yes or 'No with reason.

- i. Increase in labour productivity shifts PPC to right.
- ii. PPC is also known as transformation curve.
- iii. An economy always produces on PP curve but not inside it.
- iv. PPC shifts rightward when economy achieves growth of resources.
- v. Slope of PP curve indicates the marginal rate of transformation
- vi. Only planned economies face the central problems, not the free economies.
- vii. In a planned economy all central problems are solved by price mechanism.
- viii. Massive unemployment shifts the PPC to the left.
- ix. PPC shows attainable combinations of output.
- x. PP curve is convex to the origin.
- xi. Any point below the PP curve shows the inefficient utilization of resources.
- xii. Marginal rate of transformation goes on increasing.

QUESTION SET-III

Q3. Write your comment on each of the following statement.

- i. Macro economics is concerned with the determination of total output, total employment and general price level.
- ii. PP curve can shift as well as rotate.
- iii. Scarcity and choice are inseparable.
- iv. The problems of 'How to Produce' is basically related to the distribution of resources.
- v. All positive statements are capable of empirical verification.
- vi. Indian economy is the mixed economy.
- vii. PPC slopes downward from left to right because an economy cannot increase the production of one good with production of another good.
- viii. Each point of PPC shows the bundles of two goods that an economy can produce with the optimum use of resources and technology.
- ix. By increasing our resources we can solve our central problems once for all.
- x. Economics is a social science not a natural science.
- xi. If resources are not efficiently utilized, we are outside the PP curve
- xii. Choice between consumer goods and capital goods refer to the problem of how to produce.

QUESTIONS SET-IV

Q4. Draw a PP curve with the help of imaginary data and show the following situations

- i. Fullest utilization of resources
- ii. Under utilization of resources
- iii. Growth of resources

Q5. Why MRT goes on increasing when we move along the PP curve?

Consumer' Equilibrium

Questions set -I

Q6. Define the following Concepts-

- i. Consumer's Equilibrium
- ii. Utility
- iii. Marginal Utility
- iv. Cardinal Approach
- v. Ordinal Approach
- vi. Budget line
- vii. Indifference curve
- viii. Indifference set

QUESTION SET-2

Q7. Defend or refute the following statements giving reasons.

- i. Indifference curve is diagrammatic presentation of Indifference set.
- ii. Indifference map refers to a set of indifference curves.
- iii. Budget line shows non attainable combinations of two goods
- iv. Indifference curve is based on marginal rate of transformation.
- v. Budget line shifts rightward when either the prices of two goods fall or the income of the consumer rises.
- vi. Total utility starts declining when marginal utility becomes negative.
- vii. According to the law of DMU, intensity of desire for a commodity goes on falling when more units of it are consumed by the consumer continuously at a given point of time.
- viii. If IC is convex to the origin MRS should be diminishing.
- ix. Consumer reaches in the state of equilibrium at that level of consumption at which the marginal utility obtained from the last unit of commodity is exactly equal to marginal utility of money sacrificed.

QUESTIONS SET-III

Q7. Answer the following question in sixty words.

- i. What is MRS?
- ii. Why should MRS diminish?
- iii. What is the condition of consumer's equilibrium if consumer consumes more than one good with his money income?
- iv. Explain the determination of consumer's equilibrium under the indifference curve and budget line approach.
- v. Why is IC convex to the origin?
- vi. Under which situation, budget line (i) shifts (ii) rotates.
- vii. Give any two exceptions of law of diminishing marginal utility.
- viii. How does a consumer decide as to how much quantity of a commodity he should consume?
- ix. What is equations of budget line? Explain with the help of an example.

Theory of Demand

QUESTION SET -I

Q8. Define the following concepts

- i. Demand
- ii. Quantity Demanded
- iii. Substitute Goods
- iv. Complimentary Goods
- v. Movement along with demand curve
- vi. Shifting of demand curve
- vii. Extention and Contraction of demand
- viii. Increase and Decrease in demand
- ix. Normal goods
- x. Giffen Goods
- xi. Income effects
- xii. Substitution effects
- xiii. Demand function
- xiv. Demand curve

QUESTION SET-II

Q9. Defend or refute the following statements giving reasons

- i. Demand for a commodity can exist independent of its price.
- ii. Rise in demand of a commodity due to fall in its price is extension of demand.
- iii. In case of inferior goods law of demand fails.
- iv. All inferior goods may not be Giffen goods but all Giffen goods are always inferior goods.
- v. In case of substitute goods a fall in price of Good X causes a fall in demand of Good Y
- vi. In case of complimentary good a rise in price of Good X causes a rise in demand of Good Y.
- vii. Changes in income causes shift in the demand curve whereas change in price does not.
- viii. In Movement along with demand curve, demand curve either shift rightwards or leftwards from the original demand curve.
- ix. In case of normal good price effect is negative but income effect is positive.
- x. Law of demand states the positive relationship between the price and demand of the commodity.
- xi. In case of inferior good law of demand fails.

QUESTION SET -III

Complete the following sentences

- i. When price of a commodity increases, demand for the commodity _____
- ii. When demand of a commodity increases, the demand curve _____
- iii. When demand curve shifts, price of commodity _____
- iv. Change in income causes shift in demand curve whereas change in price does not.
- v. In case of movement along with demand curve, demand moves from _____

- vi. In case of shifting of demand curve the demand curve _____
- vii. In case of Giffen goods price effect is _____ and income effect is _____
- viii. Law of demand fails in case of (i) _____ (ii) _____
(iii) _____
- ix. When price of Coke rises the demand for Pepsi _____
- x. When the price of car rises the demand of petrol _____

Charts and Projects

- Make two informative charts on any topics related to Economics to be displayed in your -Class.
- Using various internet sites, make a project on various saving and investment options in India.
- Make a project on the Online functioning of National Stock Exchange.

OR

Make a project on any one

- E- Commerce Company engaged in online retail business.
- Make a power point presentation on Bombay Stock Exchange.

MATHEMATICS

1. If $A = \begin{pmatrix} 3 & -5 \\ -4 & 2 \end{pmatrix}$ Show that $A^2 - 5A - 14I = 0$ and hence find A^{-1} .

2. If $A = \begin{bmatrix} 2 & -1 \\ 3 & 4 \end{bmatrix}$, $B = \begin{bmatrix} 5 & 7 \\ 2 & 4 \end{bmatrix}$, $C = \begin{bmatrix} 2 & 5 \\ 3 & 8 \end{bmatrix}$ Find a matrix D such that $CD - AB = 0$.

3. If $A = \begin{bmatrix} 3 & -2 \\ 4 & -2 \end{bmatrix}$, find k so that. $A^{-1} = kA - 2I$

4. Find X and Y if. $3X - Y = \begin{bmatrix} 1 & 1 \\ -1 & 1 \end{bmatrix}$ and $X - 3Y = \begin{bmatrix} 0 & -1 \\ 1 & -1 \end{bmatrix}$

5. Find B if $\begin{bmatrix} 2 & 5 \\ -3 & 7 \end{bmatrix} B = \begin{bmatrix} 17 & -1 \\ 47 & -13 \end{bmatrix}$

6. If $A = \begin{bmatrix} 3 & 1 \\ 7 & 5 \end{bmatrix}$, find a and b such that $A^2 + aI = bA$, where I is unit matrix of order 2.

7. Express $A = \begin{bmatrix} 6 & 1 \\ 3 & 4 \end{bmatrix}$ as a sum of a symmetric and a skew – symmetric matrix.

8. If $A = \begin{bmatrix} 1 & 1 & 1 \\ 1 & 2 & -3 \\ 2 & -1 & 3 \end{bmatrix}$ find A^{-1} and use it solve the system of equations:

$$\begin{aligned} x + y + 2z &= 0 \\ x + 2y - z &= 9 \\ x - 3y + 3z &= -14 \end{aligned}$$

9. If $A = \begin{bmatrix} 2 & -1 & 1 \\ -1 & 2 & -1 \\ 1 & -1 & 2 \end{bmatrix}$ and $B = \begin{bmatrix} 3 & 1 & -1 \\ 1 & 3 & 1 \\ -1 & 1 & 3 \end{bmatrix}$ find the product AB and use this result to solve the following system of equations:
- $$\begin{aligned} -x + 2y - z &= 4 \\ x - y + 2z &= -3 \end{aligned}$$

system of equations:

10. If $A = \begin{pmatrix} 3 & 1 \\ -1 & 2 \end{pmatrix}$, show that $A^2 - 5A + 7I = 0$

11. If $A = \begin{pmatrix} \cos \alpha & \sin \alpha \\ -\sin \alpha & \cos \alpha \end{pmatrix}$, then verify that $A \cdot A' = I$.

12. Without expanding the determinant

$$\begin{vmatrix} a & b & c \\ b & c & a \\ c & a & b \end{vmatrix}$$

(i) show that $a+b+c$ is a factor of the determinant

(ii) prove that $\begin{vmatrix} x+y & x & x \\ 5x+4y & 4x & 2x \\ 10x+8y & 8x & 3x \end{vmatrix} = x^3$

(iii) prove that $\begin{vmatrix} 1/a & a^2 & bc \\ 1/b & b^2 & ca \\ 1/c & c^2 & ab \end{vmatrix} = 0$

(iv) prove that $\begin{vmatrix} b+c & c+a & a+b \\ q+r & r+p & p+q \\ y+z & z+x & x+y \end{vmatrix} = 2 \begin{vmatrix} a & b & c \\ p & q & r \\ x & y & z \end{vmatrix}$

13. If $A = \begin{pmatrix} 1 \\ -5 \\ 7 \end{pmatrix}$ and $B = (3, 1-2)$, verify that $(AB)' = B'A'$.

14. Using determinants, find the area of the triangle whose vertices are $(-2,4)$, $(2,-6)$ and $(5,4)$. Are the given points collinear?

15. $A = \begin{pmatrix} 1-3 & 2 \\ 2 & 0 & 2 \end{pmatrix}$ and $B = \begin{pmatrix} 2 & -1 & -1 \\ 0 & 1 & -1 \end{pmatrix}$, find a matrix C such that $A + B + C$ is a zero matrix.

16. Construct a 2 X 3 matrix whose elements in the ith row and jth column are given by

$$(i) \frac{3i-j}{2} \quad (ii) \frac{2i+3j}{2} \quad (iii) \frac{(i-2j)^2}{2}$$

$$A = \begin{pmatrix} 2 & 3 \\ 1 & 2 \end{pmatrix}$$

17. If $f(x) = x^2 - 4x + 1$, find $f(A)$, when

$$A = \begin{pmatrix} -1 & 2 \\ 3 & 4 \end{pmatrix}, \text{ and } B = \begin{pmatrix} 3 & -1 \\ 1 & 5 \end{pmatrix}$$

18. Find a matrix X such that $2A + B + X = 0$, where

19. Using properties of determinants, show that:

$$(i) \begin{vmatrix} a+x & y & z \\ x & a+y & z \\ x & y & a+z \end{vmatrix} = a^2(a+x+y+z)$$

$$\begin{vmatrix} 1 & a & bc \\ 1 & b & ca \\ 1 & c & ab \end{vmatrix} = 0$$

$$(iii) \begin{vmatrix} x+4 & x & x \\ x & x+4 & x \\ x & x & x+4 \end{vmatrix} = 16(3x+4)$$

$$(ii) \begin{vmatrix} 1 & x & x^3 \\ 1 & y & y^3 \\ 1 & z & z^3 \end{vmatrix} = (x-y)(y-z)(z-x)(x+y+z)$$

$$(v) \begin{vmatrix} a+b+c & c & -b \\ -c & b+c+a & -a \\ -b & a & c+a+b \end{vmatrix} = 2(a+b)(b+c)(c+a)$$

$$(vi) \text{ Prove that } \begin{vmatrix} 1+a & 1 & 1 \\ 1 & 1+b & 1 \\ 1 & 1 & 1+c \end{vmatrix} = abc(a+1/a+1/b+1/c)$$

$$(vii) \begin{vmatrix} b+c & c+a & a+b \\ c+a & a+b & b+c \\ a+b & b+c & c+a \end{vmatrix} = 2(a+b+c)(ab+bc+ca-a^2-b^2-c^2)$$

20. Solve the following system of equations:

i. $3x + 4y + 7z = 14, 2x - y + 3z = 4, x + 2y - 3z = 0$

ii. $2x - z = 3, 5x + y = 7, y + 3z = -1$

iii. $x + 2y - 3z = 6, 3x + 2y - 2z = 3, 2x - y + z = 2.$

iv. $x + y + z = 1, x - 2y + 3z = 2, x - 3y + 5z = 3$

v. $x - y + z = 3, 2x + y - z = 2, -x - 2y + 2z = -1.$

vi. $x + y + z = 6, x + 2y + 3z = 14, x + 4y + 7z = 30$

vii. $x + 2y - 3z = -4, 2x + 3y + 2z = 2, 3x - 3y - 4z = 11$

viii. $5x + 3y + z = 16, 2x + y + 3z = 19, x + 2y + 4z = 25$

ix. $2x + 6y = 2, 3x - z = -8, 2x - y + z + 3 = 0.$

x. $2/x + 3/y + 10/z = 4$, $4/x - 6/y + 5/z = 1$, $6/x + 9/y - 20/z = 2$

$$A^{-1} \text{ if } A = \begin{pmatrix} 1 & 2 & 5 \\ 1 & -1 & -1 \\ 2 & 3 & -1 \end{pmatrix}$$

21. Find Hence, find the following system of equations: $x+2y+5z=10$, $x-y-z+2=0$, $2x+3y-z+11=0$.

22. If $A = \begin{pmatrix} 3 & 2 \\ 1 & 1 \end{pmatrix}$, find the values of a and b such that $A^2 + Aa + b = 0$. hence find A^{-1} .

23. If $\begin{bmatrix} -1 & 3 & 4 \\ 5 & -1 & 2 \end{bmatrix}$ is additive inverse of $\begin{bmatrix} 2x & -3 & y \\ x+t & -z & 2z \end{bmatrix}$. Find x, y, z and t

24. Find value of x, (i) If matrix A is not invertible. $A = \begin{vmatrix} 4 & -3 & 1 \\ -6 & 7 & -4 \\ 1 & -2 & x \end{vmatrix}$

(ii) $\begin{bmatrix} 0 & x+2 & 2-x \\ 1-2x & 0 & 2x-1 \\ 3x-8 & x-8 & 0 \end{bmatrix}$ is a skew symmetric.

25. Classify the following system of equations as consistent or inconsistent. If consistent solve it.
 $x - y + 3z = 6$, $x + 3y - 3z = -4$ and $5x + 3y + 3z = 10$

NOTE:

- Make notes of formulae of Trigonometry, Conic Sections, Straight Lines, Permutation and Combinations, Three Dimensional Geometry, Limits and Derivatives on separate sheets.
- To revise concepts learnt in previous classes and to be used in XII
- (i) Find the image of the point (3,8) with respect to the line $x + 3y = 7$ assuming the line to be plane mirror.
- (ii) Write the equation of line passing through (5,4) and parallel to the line $y = x + 1$.
- (iii) Prove that $\cos^2 x + \cos^2 (x + \pi/3) + \cos^2 (x - \pi/3) = 3/2$
- (iv) Find the general solution of the equation $\sec^2 2x = 1 - \tan 2x$
- (v) Solve the following system of inequalities graphically:
 $3x + 2y < 60$; $y \geq 2x$; $x < 15$; $y > 0$ and $x > 0$
- (vi) Show that $\frac{\sin x - \sin 3x}{\sin^2 x - \cos^2 x} = 2 \sin x$
- (vii) Find the domain and range of the function $f(x) = [x]$ (Greatest Integer function). Also draw its graph.
- (viii) Find the probability that when a hand of 6 cards is drawn from a well shuffled deck of 52 cards, it contains (i) at least 3 kings (ii) all kings.
- (ix) Prove that: $\cos 20^\circ \cos 40^\circ \cos 80^\circ = 1/8$
- (x) Calculate the mean, variance and standard deviation for the following data:

Class	30-40	40-50	50-60	60-70	70-80	80-90	90-100
Frequency	3	7	12	15	8	3	2
- (xi) Suppose $f(x) = \begin{cases} a + bx, & x < 1 \\ 4, & x = 1 \\ b - ax, & x > 1 \end{cases}$ and if $\lim_{x \rightarrow 1} f(x) = f(1)$
What are the possible values of a and b?
- (xii) Evaluate $\lim_{x \rightarrow 1} \frac{x^{15}-1}{x^{10}-1}$.
- (xiii) Find the derivative of $\tan x$ using first principle.

- (xiv) Find the derivative of (i) $\frac{x^5 - \cos x}{\sin x}$ (ii) $(2 - 5x) \sin^n x$

INFORMATICS PRACTICES

Write answers in your fair copy:-

1. For your final board project, finalize topic and try to do complete case study. Try to collect all the information regarding your project, make data flow diagrams, screen flow diagram, finalize your data file structure, and finalize functions, validations and bring all such things in a File.
2. Prepare a 3 D chart/Model on any one topic from the following list:
 - Different Networking Topologies
 - Different Transmission Media
 - Different great inventions in Computer field
 - Famous IT personalities
 - Famous IT companies and their details
 - Few popular Computer/Mobile operating systems
 - Detail explanation of any free software
 - Future trends in IT Industry
3. Compare radio waves and micro waves.
4. Write down any two differences between HUB and SWITCH.
5. Explain the following protocols:-
 - i) TCP/IP
 - ii) SMTP
 - iii) PPP
 - iv) FTP
 - v) SQL
 - vi) OSS
6. What is the role of repeater in networking?
7. What do you mean by gateway?
8. Give atleast two differences between MAC address and IP address.
9. Explain the concept of Domain Name.
10. Explain the use of firewall in networking.
11. Write down the role of bridge in networking.
12. Expand the term modem and also explain its use in networking.
13. Name two encodings that are used for Indian language computing.
14. Name any four Indian scripts included in Unicode.
15. What do you mean by open standards?
16. Write down the name of any three:
 - Open Source software.
 - Freeware software.
 - Shareware software.
17. Explain the term proprietary software.
18. What is Cyber Law?
19. Anjali is a programmer at MagicBricks. To calculate wages to be paid to labourers she has developed the following GUI in NetBeans:

Male and Female labourers are respectively paid at the rate of Rs. 140./- per day and Rs. 160/- per day. Skilled laborers are paid extra at the rate of Rs. 50/- per day.

 - i. User must be able to select only one of the two radio buttons (Male and Female) at a time.
 - ii. Write code to calculate and display the Total wages in the corresponding label when the "Calculate Wages" button is clicked. Here total wages= no. of days worked *(wages+extra).
 - iii. Write code to Clear all the text fields for Clear button and exit the application when clicks on STOP button.
20. Globus Garments has developed a GUI application for their company as shown below:

The company accepts payments in 3 modes: cheque, cash and credit cards. The discount given as per mode of payments. The details are as follows:

Mode of payment	discount
Cash	8%
Cheque	7%
Credit Card	Nil

If the bill amount is more than 15000, then the customer gets an additional discount of 10% on Bill amount.

- i. Write the code to make the textfields for discount (named txtDisc) and Net Amount (named txtNetAmt) uneditable.
 - ii. Write code to do the following:
 - a) When Calculate Discount button is clicked the discount should be calculated as per the given criteria and it should be displayed in the discount textfield. Calculate NetAmount button (named btnCalcNetAmt) should also be enabled.
 - b) When “Calculate Net Amount” button is clicked the net amount should be calculated and it should be displayed in the net amount textfield.
 - c) When STOP button is clicked then application is closed.
21. In a table ‘Employee’, a column ‘Occupation’ contains many duplicate values. Which keyword would you use if you wish to list only different values.
22. Charvi wants to delete the records where the “FirstName” is “Rama” in ‘Emp’ table. She has entered the following SQL statement. An error is being displayed. Rewrite the correct statement..
23. Consider the Table “Infant” shown below:

Table: Infant

Note:

ItemCode	Item	DatePurchase	UnitPrice	Discount
101	Frock	2016-01-23	700	10
102	Cot	2015-09-23	5000	25
103	Soft Toy	2016-06-17	800	10
104	Baby Socks	2014-10-16	100	7
105	Baby Suit	2015-09-20	500	5

Discount column stores discount %

- i. To display the details about the Cot.
- ii. To list the names of items and their unit price that have price less than 800 and discount more than 5%.
- iii. To list the names of items and their date of purchase that were purchased after 31st december,2015.
- iv. To display the number of items that have more than 10% discount.
- v. To display Item code and unit price in decreasing order of unit price.
- vi. To increase the unit price of each item by 10% of their unit price.
- vii. To display the highest unit price of items.
- viii. To display the names of items that have ‘Baby’ anywhere in their item names.
- ix. Select MID(Item,1,2) From Infant;
- x. Select Avg(UnitPrice) From Infant Where DatePurchase>’2015-01-01’;

24. Consider the tables given below and answer the questions that follow:

Table: Workshop

WorkshopId	Title	NumSpeakers	MeantFor	Fee
551	Time Management	3	Senior Manager	7000
553	App Development	1	Computer Programmer	9000
554	Planning	2	Senior Manager	8000
556	Marketing Strategies	2	Junior Manager	9000

Table: Participant

ParticipantId	Name	WorkshopId
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100	Prabhu Shankar	551
101	Dev Sen	554
102	Fauzia Khan	551
103	Tom Winters	553

Write commands in SQL for I to iii given below:

- i. To display names of Participants along with workshop titles for only those workshops that have more than 2 speakers.
- ii. To display ParticipantId, Participant's name, WorkshopId for workshops meant for Senior Managers and Junior Managers.
- iii. To display WorkshopId, Title, ParticipantId for only those workshops that have fees in the range of 5000 to 8000.

25. Write SQL query to create a table 'Event' with the following structure:

Field	Type	Constraint
EventId	Varchar(50)	Primary Key
EventName	Varchar(30)	Not Null
Location	Varchar(50)	
ClientId	Integer	
EventDate	Date	

PHYSICAL EDUCATION

UNIT 3: YOGA AND LIFE STYLE

1. Elements of yoga.
2. Benefits of yoga.
3. Explain various types of yoga asana.
4. Treatment for various types of diseases by yoga.
5. Benefits of different asana.

UNIT 4: PHYSICAL EDUCATION & SPORTS FOR DIFFERENTLY ABLED

6. Concept of disabilities.
7. Explain types of disabilities.
8. Types of disorder, its causes and nature.
9. Advantage of physical activities for children.
10. Explain about ADHD, SPD, ASD, ODD, OCD.

UNIT 5: CHILDREN & SPORTS

11. Define motor development. What are the factors affecting motor development.
12. How is exercise beneficial for the development of children?
13. Why are physical activities so important in life?
14. Write about the safety concerns of food supplements for children and teen.
15. What are the advantages and disadvantages of weight training?