**INDIAN SCHOOL SOHAR**

**TERM 1 EXAMINATION (2023 – 2024)**

**ECONOMICS (030)**

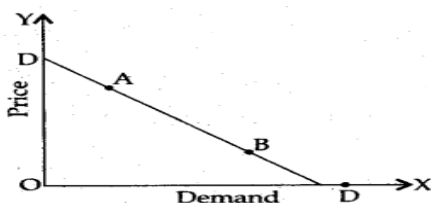| | |
|---|---|
| **CLASS: - XI** | **MAX MARKS: - 80** |
| **DATE:  19/09/2023** | **TIME: 3 HOURS** |

**General Instructions:**

**Read the following instructions very carefully and strictly follow them:**

1. This question paper comprises two sections **A** and **B**.

2. All questions are **compulsory**. Marks are indicated against each question.

3. Question numbers **1 – 8** and **17** – 24 are very short-answer questions carrying **1** mark each. They are required to be answered in **one word** or **one sentence** each.

4. Question numbers **9** – 10 and **25 – 26** are short-answer questions carrying **3** marks each. Answers to them should not normally exceed **60 – 80** words each.

5. Question numbers **11 – 14** and **27 – 29** are also short-answer questions carrying **4** marks each. Answers to them should not normally exceed **80 – 100** words each.

6. Question numbers **15 – 16** and **30 – 31** are long answer questions carrying **6** marks each. Answers to them should not normally exceed **100 – 150** words each.

7. There is no overall choice. However, an internal choice has been provided in **2** questions of one mark, **2** questions of three marks, **2** questions of four marks and **2** questions of six marks. Only one of the choices in such questions must be attempted.

## SECTION A

1. Let TR be total revenue, Q be quantity of output, and 'n' the number of units, then marginal revenue equals: (choose the correct alternative)  [1]

   A.  TRn – TRn – 1 only

   B.  $\frac{\text{Change in TR}}{\text{Change in Q}}$ only

   C.  Both (A) and (B)

   D.  None of the above

2. DD is a demand curve, A and B are two points on it. Price elasticity of demand at point A is:

   

   A.  less than elasticity of demand at B.

   B.  equal to elasticity of demand at B.

   C.  greater than elasticity of demand at B.

   D.  less than 1.

**Read the following case study and answer questions 3 and 4 based on the same.**
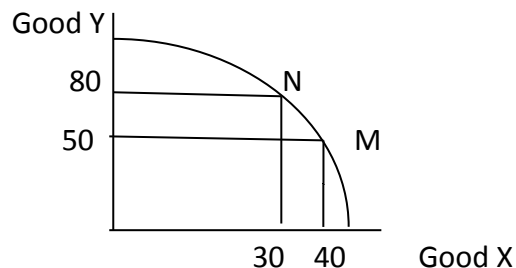
If our income rises, we generally tend to buy more of the goods. More income would mean more pens, more shirts, more shoes, more cars and so on. But there are exceptions. If initially, you are buying coarse grain, how would you take your increase in income now? Perhaps, as a first step, you would discard the consumption of inferiors. Surely, this happens in the deserts of Rajasthan where the rich minority eats wheat while the poor majority eats Bajra as their staple food.

3.  As a result of rise in consumer's income, the demand curve for coarse grain (inferior good)    [1]

    A.  becomes a horizontal straight line      B.  becomes a vertical straight line

    C.  shifts to the right                   D.  shifts to the left

4.  Inferior goods are those whose income effect is_____. (Negative/ Positive)    [1]

5.  Identify the correct sequence of alternatives given in Column II by matching them with respective items in Column I    [1]

| Column I | Column II | |
|---|---|---|
| a. Consumer's equilibrium | I. | $\frac{\Delta Y}{\Delta X}$ |
| b. Slope of the IC | II. | Budget line rotates to the right starting from Y axis |
| c. $P_x$ falls | III. | Consumer should move downward to the right along the IC |
| d. $MRS_{XY} > \frac{P_X}{P_Y}$ | IV. | Optimum choice of the consumer |

  **Alternatives:**

    A.  a -I, b -III, c -IV, D- I               B.  a -IV, b -I, c -II, D- III

    C.  a -III, b -IV, c -II, D- I            D.  a -IV, b -II, c -I, D- III

6.  Slope of PPC between point N and point M is:    [1]

    a.  3

    b.  20

    c.  2.5

    d.  3.5

7.  If a firm's production department data says that the total variable cost for producing 8 units and 10 units of output is ₹ 2,500 and ₹ 3,000 respectively, marginal cost of 10th unit will be.    [1]

    A.  ₹ 100                          B.  ₹ 150

    C.  ₹ 500                          D.  ₹ 250

8.  **Read the following statement carefully. Write True or False with reason.**    [1]

"The AC and the AVC tend to intersect at some level of output."

<div align="center">**OR**</div>

"As output increases the difference between TC and TVC tends to fall."

9. From the set of statements given in Column I and Column II, choose the correct pair of statements: [1]

| Column I | Column II |
|---|---|
| a. Microeconomics | I. Deals with the aggregates at the level of the economy as a whole |
| b. Choice | II. Process of selection from available limited alternatives |
| c. Positive Economics | III. Involves value judgement |
| d. Normative Economics | IV. Statements as based on facts and figures related to past, present, or future |

**Alternatives:**

A. a- I

B. b-II

C. c-III

D. d-IV

10. Which of the following diagrams correctly represents the relationship between TC, TVC and TFC? [1]



11. Explain the causes of the inverse relationship between price and quantity demand? {3}

**OR**

Explain any three differences between change in quantity demanded and change in demand.

12. A person starts a goods transport business. He purchases a goods carrier using partly his own savings [3]
and partly borrows money. He drives the carrier himself. What are the explicit costs and implicit costs
directly identifiable in it? Give reason for your answer.

13. Distinguish between [4]
    A. Ordinal utility and cardinal utility
    B. Perfectly elastic demand and perfectly in elastic demand.

14. Suppose a consumer can afford to buy 6 units of Good 1 and 8 units of Good 2. She spends her entire [4]
income the prices of the two goods are ₹6 and ₹ 8 respectively.
    A. How much is the consumer's income?
    B. What happens to the budget set if both the prices as well as the income double?
    C. If a consumer has monotonic preferences, can she be indifferent between the bundles (10, 8) and
       (8, 6)?
    D. How does the budget line change if the consumer's income increases to ₹40 but the prices
       remain unchanged?

**OR**

A consumer consumes only two goods X and Y whose prices are ₹4 and ₹ 5 per unit respectively. If the
consumer chooses a combination of the two goods with marginal utility of X equal to 5 utils and that of Y
utils equal to 4, is the consumer in equilibrium? Give reasons. What will a rational consumer do in this
situation? Use utility analysis.

15. Complete the following table. [4]

| Output (units) | AFC in ₹ | AC in ₹ | AVC in ₹ | MC in ₹ |
|---|---|---|---|---|
| 1 | | 140 | | 50 |
| 2 | | | 45 | |
| 3 | | | | 45 |
| 4 | 22.5 | | 48 | |
| 5 | 18 | | 52 | |

16.  A. When the price of a commodity X falls by 10 percent, its demand rises from 150 units to 180 [6]
        units. Calculate its price elasticity of demand. How much should be the percentage fall in its price
        so that demand rises from 150 units to 210 units?

     B. Production in an economy is below its potential due to unemployment. Government starts
        employment generation schemes. Explain its effect using production possibilities curve.

**OR**

     A. Explain with the help of an example and a suitable diagram, how the demand for a given good is
        affected by a rise in the price of a substitute good.

B. Explain any three properties of an indifference curve.

17. A. Explain the relation between Marginal Cost and Average Variable Cost with the help of diagram. [6]

B. What is the Average Fixed Cost of a firm? Why is an Average Fixed Cost Curve a rectangular Hyperbola? Explain with help of a diagram.

**SECTION B**

18. **Read the statements carefully and choose the correct alternatives given below.** [1]

**Statement 1**: in simple arithmetic mean, all items of a series are given equal significance.

**Statement 2**: in weighted arithmetic mean, different items are accorded different weights depending on their relative importance.

**Alternatives:**

A. Both statements are true.

B. Both statements are false.

C. Statement 1 is true and statement 2 is false.

D. Statement 1 is false and statement 2 is true.

19. An advertisement agency mailed 100 questionnaires to the viewers to know the impact of the advertisement. It received only one questionnaire back. It is not possible to apply statistics because. [1]

A. It does not deal with quantitative data        B. It is not confidential.

C. The answers replied is not clear.        D. It does not deal with single result.

20. Identify the correct sequence of alternatives given in Column II by matching them with respective items in Column I. [1]

| Column I | Column II |
|---|---|
| a. Exclusive series | I. Upper limit of the last class interval is missing. |
| b. Discrete variable | II. Frequency values are expressed as percentage of the total frequency |
| c. Open end series | III. Value of the upper limit of a class interval is not included in that class |
| d. Relative frequency | IV. Assume value in complete number. |

**Alternatives:**

A. a – IV, b – III, c – I, d - II        B. a – III, b – IV, c – I, d - II

C. a – II, b – IV, c – III, d - I        D. a – IV, b – II, c – I, d - III

21. Average income of 50 families is ₹ 3000. Of these, the average income of 12 families is ₹ 1800. The average income of the remaining families is: [1]

A. ₹ 2590        B. ₹ 3379

C. ₹ 2900        D. ₹ 3500

22. Drawing a lottery uses [1]

    A. Random sampling                B. Quota sampling

    C. Purposive sampling           D. Cluster sampling

**Read the following passage carefully and answer questions 23 and 24 based on the same.**

Descriptive statistics are used to organize and summarize data whether they come from the studies of populations or samples. However, another type of statistics called inferential statistics is needed to make generalization from samples to populations. For example, if a poll of 1000 registered voters indicates that 55% approve of how the president is handling the economy inferential statistics can be used to compute a margin of error, which is an allowance for possible fluctuations due to sampling. Thus, if the margin of error is 4 %points, we can be confident that the true percentage of the population which approve is between 51% and 59%. Although inferential statistics perform an important function when we have sampled, they are not needed when we analyse the data of entire populations since there is no sampling error when we do not sample.

23. Which of the following is a feature of statistics in terms of numerical data? [1]

    A. Interpretation of qualitative data       B. Aggregate of facts

    C. Mutually related and comparable       D. Both B and C

24. If a teacher of Class XI estimates average height of the entire class based on average height of only a sample of students of the class, he is using: [1]

    A. Descriptive statistics            B. Inferential statistics

    C. Both A and B                 D. None of the above

25. From the set of statements given in Column I and Column II choose the correct pair of statements. [1]

| Column I | Column II |
|---|---|
| a. Primary source of data | I. Collection of data |
| b. Secondary data | II. Firsthand data |
| c. Direct personal investigation method | III. Collected data haver a less degree of originality |
| d. Enumerator's method | IV. A questionnaire is prepared according to the purpose of enquiry |

**Alternatives:**

    A. a - I                    B. b - II

    C. c – III                 D. d - IV

26. By which formula is combined arithmetic mean estimated? [1]

    A. $\bar{X}_{12} = \dfrac{X_1 + X_2 + \ldots + X_N}{N_2 + N_1}$         B. $\bar{X}_{12} = \dfrac{\bar{x}_1 N_1 + \bar{x}_2 N_2}{N_2 + N_1}$

    C. $\bar{X}_{12} = \dfrac{\bar{x}_1 + \bar{x}_2}{N_2 + N_1}$            D. None of these

27. In order to know the likings and disliking of the listeners of the programmes broadcast by Himachal Akash Vani, the latter is keen to collect data. Which method of collecting data will be suitable for it? [1]

    A. Direct personal investigation        B. Indirect oral investigation

    C. Mailing questionnaire survey        D. Enumerator's method

28. Define classification. Explain two main objectives of classification. [3]

29. We have the following data on the monthly expenditure on food (in ₹) for 30 households in a locality. [3]

| 115 | 223 | 212 | 205 | 196 |
|-----|-----|-----|-----|-----|
| 256 | 169 | 335 | 129 | 310 |
| 184 | 298 | 265 | 241 | 245 |
| 144 | 243 | 229 | 173 | 172 |
| 220 | 238 | 220 | 243 | 278 |
| 159 | 271 | 234 | 135 | 238 |

    A. Obtain a frequency distribution by taking a class interval of 50.

    B. What percentage of households spends less than ₹250 per month and what percentage of households spends more than ₹200 per month? Show the calculations.

**OR**

Convert the following data into a simple frequency distribution.

| 5 students obtained less than 3 marks |
|---|
| 12 students obtained less than 6 marks |
| 23 students obtained less than 9 marks |
| 33 students obtained less than 12 marks |

30. Define statistics in the singular sense. Identify and explain the stages of statistical study. [4]

**OR**

Suppose the 30% rise in prices has been due to several causes, like reduction in supply, increase in demand, shortage of power, rise in wages, rise in taxes etc. Which feature of statistics does it indicate? Explain any three other features of statistics

31. Calculate mean from the following data. [4]

| Marks | 10 -20 | 10 – 30 | 10 – 40 | 10 – 50 | 10 – 60 | 10 – 70 | 10 – 80 | 10 -90 |
|-------|--------|---------|---------|---------|---------|---------|---------|--------|
| No. of students | 4 | 16 | 56 | 97 | 124 | 137 | 146 | 150 |

32. Define questionnaire method of collecting primary data. What precautions must be taken while preparing questionnaire? [4]

33. A. A company has 800 managers. The mean salary paid to them is ₹ 3850. Later, it was found that the salary of two managers were wrongly taken as ₹ 2870 and ₹ 3645 instead of ₹ 2780 and ₹ 3654. Find [6]

the correct mean.

B. The following series gives the weekly wages. Mean marks are 11.66.

| Weekly wages (in ₹) | 40 – 43 | 43 – 46 | 46 – 49 | 49 – 52 | 52 - 55 |
|---|---|---|---|---|---|
| No. of workers | 3 | 6 | 9 | 13 | X |

34. Define classification of data. Explain the different methods of classification of data. Give examples. [6]

**OR**

Differentiate between

A. Inclusive classification and exclusive classification

B. Indirect oral investigation and direct personal investigation

C. Discrete series and continuous series