## INDIAN SCHOOL SOHAR

TERM 2 EXAMINATION (2023-2024)
ECONOMICS (030)
MAX MARKS: - 80
DATE: 13 /02/2024
TIME: 3 HOURS

## General Instructions:

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

1. This question paper comprises two sections $\mathbf{A}$ and $\mathbf{B}$.
2. All questions are compulsory. Marks are indicated against each question.
3. Question numbers $\mathbf{1 - 8}$ and $\mathbf{1 7 - 2 4}$ are very short-answer questions carrying $\mathbf{1}$ mark each. They are required to be answered in one word or one sentence each.
4. Question numbers $\mathbf{9 - 1 0}$ and $\mathbf{2 5 - 2 6}$ are short-answer questions carrying $\mathbf{3}$ marks each. Answers to them should not normally exceed $\mathbf{6 0 - 8 0}$ words each.
5. Question numbers $\mathbf{1 1} \mathbf{- 1 4}$ and $\mathbf{2 7 - 2 9}$ are also short-answer questions carrying $\mathbf{4}$ marks each. Answers to them should not normally exceed 80-100 words each.
6. Question numbers $\mathbf{1 5} \mathbf{- 1 6}$ and $\mathbf{3 0 - 3 1}$ are long answer questions carrying $\mathbf{6}$ 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 $\mathbf{2}$ questions of one mark, $\mathbf{2}$ questions of three marks, $\mathbf{2}$ questions of four marks and $\mathbf{2}$ questions of six marks. Only one of the choices in such questions must be attempted.

## SECTION A (STATISTICS FOR ECONOMICS)

1. Read the following Assertion (A) and Reason (R) and choose the correct alternative:

Assertion (A): Diagrammatic representation of data makes the data quite simple and intelligible.
Reason (R): It helps in the proper analysis of the data and helps in the comparative study of the data.

## Alternative:

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

## OR

Read the statements and choose the correct alternative
Statement - I Sample Method is better than the Census Method for gathering information.

Statement - II Sample method saves time as well as the energy of the investigator.
A. Only Statement I is true
B. Only Statement II is true
C. Both Statement I \& Statement II are true
D. Both Statement I \& Statement II are false.
2. Read the following statements: Assertion (A) and Reason (R). Choose one of the correct alternatives:

Assertion(A): In inclusive series, there is a gap between the upper limit of a class interval and the lower limit of the next class interval.

Reason (R): In an open-end series, lower limit of the first-class interval and the upper limit of the last class is the same.

## Alternatives:

A. Both Assertion (A) \& Reason (R) are True \& Reason (R) is the correct explanation of Assertion (A)
B. Both Assertion (A) \& Reason (R) are True \&Reason (R) is not the correct explanation of Assertion (A).
C. Assertion (A) is True, but Reason (R) is False.
D. Assertion (A) is False, but Reason (R) is True.

## Study the following data carefully and answer question 3 and 4 based on the same:

| Sp1q0 | 2p0q0 | \p1q1 | \p0q1 |
| :---: | :---: | :---: | :---: |
| 235 | 187 | 250 | 233 |

3. The value of index number for the above data using Laspeyres's method is
A. 125.67
B. 107.29
C. 116.12
D. 135.8
4. Index number for the base year is always considered as $\qquad$ .
A. 100
B. 1000
C. 10
D. 1
5. Identify the diagram that shows the frequency distribution analysis of capital investment in top firms.

A. Cumulative frequency curve
B. frequency curve
C. time series graph
D. frequency polygon
6. Read the following statement given below and choose the correct alternative.

Assertion (A): Attributes of a variable can vary from one investigator to another depending upon the method of statistical enquiry used.

Reason (R): Variables can take any value including integral and fractional values.

## Alternatives:

A. Both Assertion (A) and Reason (R) are true \& Reason (R) is the correct explanation of Assertion (A)
B. Both Assertion (A) and Reason (R) are true \& Reason (R) is not the correct explanation of Assertion (A)
C. Assertion (A) is true, but Reason (R) is false.
D. Assertion (A) is false, but Reason (R) is true.
7. Match the statements given under Column I with the correct option given under Column II

| Column I | Column II |
| :--- | :--- |
| 1. Caption | a. Heading of horizontal rows |
| 2. Simple table | b. Column heading |
| 3. Stubs | c. First order table |
| 4. Special purpose table | d. Summary table |

Alternatives:
A. 1. b, 2.c, 3.a, 4. d
B. 1. d, 2.b, 3.c, 4. a
C. 1. c, 2.a, 3.b, 4. d
D. 1. c, 2.a, 3.b, 4. d
8. Mean marks obtained by 200 students are 80. Later, it was found one value was read as 166 instead of 106. The correct Arithmetic mean of the data will be $\qquad$ .
A. 79.00
B. 70.90
C. 77.90
D. 79.70
9. What will be the angle representing the cost of raw material shown in the pie chart?

A. 80
B. 52
C. 84
D. 25
10. The world is facing the Covid pandemic even now. During its initial days, government of India conducted tests of citizens on a frequent interval to ensure that virus does not spread to the community. This is an example of which of the following types of survey?
A. Sample survey
B. Census survey
C. Both Census and sample survey
D. Neither Census nor sample survey
11. From the following table, find out Median.

| Income (in ₹) | $100-200$ | $100-300$ | $100-400$ | $100-500$ | $100-600$ |
| :--- | :--- | :--- | :--- | :--- | :--- |
| No. of people | 15 | 33 | 63 | 83 | 100 |

OR
Calculate mode of the following distribution. Locate the Mode graphically:

| Class | Below 15 | Below 20 | Below 25 | Below 30 | Below 35 | Below 40 | Below 45 |
| :--- | :---: | :--- | :--- | :--- | :--- | :--- | :--- |
| Frequency | 3 | 10 | 26 | 38 | 47 | 52 | 55 |

12. A total number of 1890 women were interviewed for jobs in a chemical company. Out of the total applicants, 450 were from textile areas and the rest from non-textile areas. Amongst the married women who belonged to textile areas, 310 were experienced and 60 were inexperienced, while from the non-textile areas, the corresponding figures were 250 and 320 . The total number of inexperienced women was 1250, of whom 80 resided in textile areas. Of the total number of women, 950 were unmarried and of those, the number of experienced women in the textile and non-textile areas was 60 and 20, respectively. Tabulate the given data.
13. The following table shows Birth and Death rate (per thousand) in India according to the Census Reports between 1931 to 2021(hypothetical figures). Present the data in the form of a multiple bar diagram:

| Year | 1931 | 1941 | 1951 | 1961 | 1971 | 1981 | 1991 | 2001 | 2021 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Birth Rate | 46 | 45 | 40 | 42 | 41 | 37 | 32.5 | 22.5 | 27.5 |
| Death Rate | 36 | 31 | 27 | 23 | 19 | 15 | 11.5 | 12 | 7.3 |

OR
The following information shows the number of students studying in various faculties in three academic years. Draw a percentage bar diagram.

| Year | No. of students |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
|  | Fine Arts | Science | Commerce | Humanities |
| $2013-14$ | 400 | 800 | 500 | 300 |
| $2014-15$ | 400 | 1200 | 800 | 400 |
| $2015-16$ | 300 | 1500 | 1000 | 500 |

14. The following table shows the age of a sample of husbands and their wives. calculate the coefficient of correlation from the following data.

| Husband's age | 30 | 32 | 34 | 35 | 37 | 38 | 40 | 42 | 44 |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Wife's age | 22 | 25 | 27 | 28 | 29 | 30 | 31 | 32 | 33 |

15. What are the various sources of collecting secondary data? What precautions are necessary to be taken to make secondary data suitable for use?
16. Construct the Consumer Price Index Number for 2005 based on 2004 from the following data.
A. Aggregative Expenditure Method
B. Family Budget Method

| Commodity | Prices (in ₹) |  | Quantity (in units) |
| :---: | :---: | :--- | :---: |
|  | 2011 | 2019 |  |
| A | 10 | 15 | 15 |
| B | 8 | 12 | 20 |
| C | 20 | 24 | 10 |
| D | 32 | 40 | 5 |
| E | 15 | 20 | 6 |
| F | 12 | 18 | 2 |
| G | 8 | 10 | 1 |

OR
From the following data, calculate index number using.
A. Laspeyres's method
B. Pasche's method
C. Fisher's method

| Items | A | B | C | D |
| :--- | :---: | :---: | :---: | :---: |
| Base year price (in ₹) | 10 | 15 | 8 | 9 |
| Base year quantity | 6 | 4 | 5 | 3 |
| Current year price (in ₹) | 12 | 20 | 16 | 1 |
| Current year quantity | 8 | 5 | 3 | 6 |

17. A. 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 two other features of statistics.
B. A candidate obtains $46 \%$ marks in English, $67 \%$ in mathematics, $53 \%$ in Hindi, $72 \%$ in History and

58\% in Economics. It is agreed to give triple weights to marks in English and double weights to marks in Mathematics as compared to other subjects. Calculate weighted mean.

## SECTION B (INTRODUCTORY MICROECONOMICS)

18. Read the statements marked as Assertion (A) and Reason (R) and choose the correct option:

Assertion (A): MC should cut MR from below.
Reason ( R ): After equilibrium point MC should be greater than MR or MC is rising.

## Alternatives.

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

Read the statements and choose the correct option:
Statement - I: Law of diminishing marginal utility state the relation between price and quantity demand of a commodity.

Statement - II: The consumer will buy more units only when the price falls.

## Alternatives:

A. Statement I is true, and Statement II is false
B. Both statements I and II are true
C. Statement I is false, and Statement II is true
D. Both statements I and II are false
19. The curve shown below is associated with which of the following situation:

A. Increase in price of complementary goods
B. Decrease in price of complementary goods
C. Increase in price of substitute goods
D. Increase in price of normal goods
20. The average product curve in the input- output plane, will be $\qquad$ .
A. S' shaped curve
B. an inverse 'S' shaped curve
C. 'U' shaped curve
D. an inverse ' $U$ ' shaped curve
21. Match the statements given under Column I with the correct options given in Column II

| Column I Column II |  |
| :--- | :--- |
| 1. Production Function | a. Period in which output can be changed by changing all factors. |
| 2. Law of returns | b. Marginal physical product |
| 3. Long run | c. Technological relationship between physical input and output of a good |
| 4. Marginal returns | d. Law of Variable Proportion |

A. 1. c, 2. d, 3.a, 4. b
B. 1. a, 2. c, 3. d, 4. b
C. 1. b, 2. c, 3. a, 4. d
D. 1. d, 2. b, 3. c, 4. a
22. A balloon seller has decided to sell all the balloons at a fixed price of $₹ 10$ each. Here the TR curve will be.
A. horizontal straight line parallel to the $X$ axis.
B. Positively sloped straight line from the origin
C. Vertical straight line parallel to the $Y$ axis.
D. Downward sloping straight line from the origin.
23. There is a sudden change in climatic conditions resulting in hot weather. Assuming no change in the price of cold drinks, it will lead to:
A. Upward movement along the market demand curve
B. Rightward shift in market demand curve
C. Downward movement along the market demand curve
D. Leftward shift in market demand curve
24. In a free capitalist economy, central problems are solved by.
A. The government
B. The planning commission
C. The price mechanism
D. The capitalist
25. If Marginal rate of transformation is constant, shape of the production possibility frontier will be: -
A. Convex to the origin
B. Concave to the origin
C. Downward sloping straight line
D. Upward sloping straight line
26. Which of the following statement is true?
A. Stock refers to the total quantity of a commodity available with the seller at any given time.
B. Stock refers to the total quantity of a commodity available with the buyer at any given time.
C. Stock refers to the total price available with the seller at any given time.
D. Stock refers to the total cash of a commodity available with the seller at any given time.
27. A market for a good is in equilibrium. If there is an improvement in the technology for producing the commodity, then what will be the correct order of the chain effects that will follow in the market?
I. The supply curve shifts to the right while demand remains unchanged.
II. The new equilibrium price is less than the initial price.
III. There is excess supply at equilibrium price.
IV. This leads to competition among sellers which puts a downward pressure on the price.

## Alternatives: -

A. I, II, III, IV
B. IV, I, II, III
C. I, III, IV, II
D. IV, II, I, III
28. Explain the conditions of producer's equilibrium in terms of marginal revenue and marginal cost.

## OR

Short run costs are represented in the following curve. Discuss how they are related?

29. Read the passage given below and answer the questions based on common understanding.

A price floor is the lowest legal price that can be paid in a market for goods and services, labor, or financial capital. The best-known example of a price floor is the minimum wage, which is based on the normative view that someone working full time ought to be able to afford a basic standard of living. What is the common purpose of fixation of floor price by the government? Explain any two consequences of this nature of intervention by the government.
30. A consumer consumes only two goods, each priced at ₹ one per unit. If the consumer chooses a combination of the two goods with Marginal Rate of Substitution equal to 2 , is the consumer in equilibrium? Give reasons. Explain what a rational consumer will do in this situation.

## OR

A consumer consumes only two goods $X$ and $Y$ whose prices are ₹ 2 and ₹ 1 per unit, respectively. If the consumer chooses a combination of the two goods with marginal utility of $X$ being 4 and that of $Y$ also being 4 , is the consumer in equilibrium? Give reasons. Explain what a rational consumer will do in this situation. Use Marginal Utility Analysis
31. Complete the following table:

| Output | TC (in ₹) | AVC (in ₹) | MC (in ₹) | AFC (in ₹) |
| :---: | :---: | :---: | :---: | :---: |
| 0 | 30 |  |  |  |
| 1 | --- | --- | 25 | 30 |
| 2 | 78 | --- | --- | --- |
| 3 | --- | 23 | --- | 10 |
| 4 | --- | --- | 23 | --- |
| 5 | 150 | --- | --- | 6 |

32. The price elasticity of good $X$ is half the price elasticity of supply of Good $Y$. A $10 \%$ rise in the price of Good $Y$ results in a rise in its supply from 400 units to 520 units. Calculate the percentage change in quantity supplied of good X when its price falls from ₹ 10 to ₹ 8 per unit.
33. From the following schedule, find out the level of output, at which the producer is in equilibrium. Give reason for your answer.

| Output (units) | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Price | 24 | 24 | 24 | 24 | 24 | 24 | 24 |
| Total cost | 26 | 50 | 72 | 92 | 115 | 139 | 165 |
| OR |  |  |  |  |  |  |  |

OR
Identify the different output levels which mark the three phases of the operation of the Law of Variable proportion from the following table. Give reason behind each phase.

| Units of variable factor | 0 | 1 | 2 | 3 | 4 | 5 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| TP (in units) | 0 | 8 | 20 | 28 | 28 | 20 |

34. A. How does the increase in the taxes imposed by the government affect the market supply curve?
B. Explain the distinction between "change in quantity supplied" and "change in supply." Use diagram.
