TIME: 3 HOURS   **Max Marks – 80**

GENERAL INSTRUCTIONS: -

1. This question paper contains two sections:

    Section A – Statistics for Economics

    Section B – Micro Economics
2. This paper contains 20 Multiple Choice Questions of 1 mark each.
3. This paper contains 4 Short Answer Questions of 3 marks each to be answered in 60 to 80 words.
4. This paper contains 6 Short Answer Questions of 4 marks each to be answered in 80 to 100 words.
5. This paper contains 4 Long Answer Questions of 6 marks each to be answered in 100 to 150 words.

Q. No.	SECTION A – STATISTICS FOR ECONOMICS	MARKS

1   Read the following statements carefully**: -**

Statement 1: Median is also known as arithmetic average.

Statement 2: Arithmetic Mean, Median and Mode for a series are not related to each other.

In light of the given statements, choose the correct alternative from the following:
 a) Statement 1 is true and Statement 2 is false.
 b) Statement 1 is false and Statement 2 is true.
 c) Both Statements 1 and 2 are true.
 d) Both Statements 1 and 2 are false.   1

2   Choose the correct statement from the following.
 a) Ogive can be of three types.
 b) Bar graph is a two dimensional diagram.
 c) Histogram can be used to locate median on the graph.
 d) Arithmetic Line graph is also called time series graph.   1

3   When two variables X and Y change in such a way that the scatter diagram is a straight downward sloping line, then, what will be the value of coefficient of correlation between them?

                                                        (Choose the correct alternative)

 a)   0
 b)   (-)1
 c)   + 1
 d)   0.5   1

4   Which of the following is not a characteristic of a good questionnaire?
 a) Questions should be in simple language.
 b) Series of questions should move from specific to general.
 c) Questions should be precise and clear.
 d) Questions should not use double negatives.   1

1

5   Which of the following are economic activities?

  I) Purchasing a laptop online

  II) A beggar begging at a traffic signal.

  III) A priest in a temple being paid a regular salary.

  IV) Watching a movie with family in a cinema hall.

Alternatives: -

  a) I & II

  b) I, II & III

  c) II & III

  d) I, III & IV   1

6   "Kabir collected data for the last 7 years regarding the enrolment of students in class 10 & class 12 of government schools of Delhi on the basis of gender." This data will be classified as: -

Alternatives: -

  a) Qualitative classification

  b) Quantitative classification

  c) Chronological classification

  d) Geographical classification   1

7   Read the following statements: Assertion (A) and Reason (R). Choose the correct alternative from those given below.

Assertion (A): Component data can be presented using a pie diagram.

Reason (R): Pie diagram is a graphical method of presenting data.

Alternatives: -

  a) Both Assertion (A) and Reason (R) are true and Reason (R) is the correct explanation of Assertion (A).

  b) Both Assertion (A) and Reason (R) are true, but 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. 1

8   Anuradha secured 60, 45 and 78 marks in English, Mathematics and Economics respectively. It was decided to give twice the weightage to mathematics than the other two subjects. What will be Anuradha's average score ?

  a) 90

  b) 60

  c) 57

  d) 61   1

9 Which of the following is NOT correct about coefficient of correlation?

(Choose the correct alternative)

Alternatives: -
   a) It has no unit
   b) Negative value indicates inverse relation between variables
   c) Its value lies between -1 and 1
   d) Its magnitude is affected by change of origin and change of scale   1

10 Which of the following is used by RBI to measure changes in consumer prices?
   A) Consumer Price Index Numbers for Industrial Workers
   B) All-India Combined Consumer Price Index
   C) All-India Urban Consumer Price Index
   D) All-India Consumer Price Index Numbers for Agricultural Labourers .   1

11 Calculate mode from the following data: -

Mid value	15	25	35	45	55	65
No. of Students	5	8	12	16	28	15

3

OR

If the Arithmetic Mean of the following series is116, find the missing value.

3

Wages (₹)	110	112	113	117	?	125	128
No. of workers	25	17	13	15	14	8	6

12 Define the following:
   a) Consumer
   b) Producer
   c) Service provider   3

13 You need to conduct a survey regarding the most popular Hindi entertainment channel among teenagers of Delhi. How would you design and choose your sample of study? Give reasons in support of your answer.   4

14 A) Draw a frequency polygon for the following data: -

Age group	18-24	24-30	30-36	36-42	42-48	48-54	54-60
No. of workers	16	24	21	11	45	8	6

4

For visually impaired candidates only in lieu of Q14 (A)
A) Differentiate between primary and secondary data.   4

OR

B) Differentiate between individual and discrete series with help of a numerical example.   4

15 Comment whether the following statements are true or false. Give reasons.

(i) The sum of deviation of items from median is zero.

(ii) Median is unduly affected by extreme observations.   4

16 Calculate Karl Pearson's coefficient of correlation for the following data: -

Price	5	6	7	8	9
Demand	45	42	39	36	33

6

OR

Calculate Rank Correlation for the following data: -

6

X	21	43	32	56	12	9	34
Y	33	23	14	17	26	48	18

17 Prepare Laspeyre's price index for the following data: -

Items	2020		2022	
	Price	Quantity	Price	Quantity
A	42	10	45	16
B	51	15	57	20
C	30	12	38	15
D	25	14	20	20
E	15	20	16	21

6

SECTION B – MICROECONOMICS

18 "What to produce?" is a central problem related with _____.
   a) Choice of types of goods to be produced
   b) Choice of quantities in which goods will be produced.
   c) Choice of technique of production.
   d) Both a) & b)

1

19 Which of the following is NOT a factor affecting price elasticity of demand for a commodity?
   a) Price of complementary good
   b) Nature of the commodity
   c) Price of substitute goods
   d) Income of the consumer

1

20 Read the following statements – Statement 1 and Statement 2.

Statement 1: Marginal revenue is the rate of change of total revenue.
Statement 2: Average product is also known as the product line of the firm.

In light of the given statements, choose the correct alternative from the following: -

Alternatives: -
   a) Both Statement 1 and Statement 2 are true.
   b) Both Statement 1 and Statement 2 are false.
   c) Statement 1 is true but Statement 2 is false.
   d) Statement 1 is false but Statement 2 is true.

1

21 Read the following statements - Assertion (A) and Reason (R). Choose one of the correct alternatives given below: -

Assertion (A): Marginal cost is variable cost only.

Reason (R): Average Fixed Cost is always falling.

Alternatives: -

    a) Both Assertion (A) and Reason (R) are true and Reason (R) is the correct explanation of Assertion(A)

    b) Both Assertion (A) and Reason (R) are true and 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.

1

22 "Decrease in supply' is caused by which of the following

(Choose the correct alternative)

    Alternatives: -

      a) Decrease in income of the consumer
      b) Increase in price of the commodity
      c) Increase in price of inputs
      d) Decrease in price of competitive good

1

23 Which of the following is NOT a feature of perfect competition market?

      a) Homogeneous product
      b) Large number of buyers and sellers
      c) Interdependence among firms
      d) Normal profits in the long run

1

24 Which of the following is true about Total Cost?

      a) It is the sum of average cost and marginal cost.
      b) Its curve is 'U' shaped
      c) It is a sum of implicit and explicit cost .
      d) It is also known as Variable Cost.

1

25 A government intervention in the market in the form of 'Price ceiling generally creates a situation of _____ in the market which may result in _____.

(Choose the correct alternative)

    Alternatives: -

      a) Excess supply , black marketing
      b) Excess demand , black marketing
      c) Excess supply , income stability
      d) Excess demand , income stability

1

26 A market for a good is in equilibrium. The government announces an increase in the tax imposed on the good, then what will be the correct order of the chain effects that will follow in the market.

      I) Supply curve shifts to the left while demand remains unchanged.

      II) The new equilibrium price is more than the initial price.

      III) There is excess demand at the equilibrium price.

      IV) This leads to competition among buyers which puts a upward pressure on the price.

Alternatives: -

    a) I, II, III, IV

    b) IV, I, II, III

    c) I, III, IV, II   1

    d) IV, II, I, III

27 From the set of the events given in column I and corresponding facts given in Column II, choose the *incorrect* pair of statements: -

	Column I		Column II
A	Perfect competition	**(i)**	AR = MR
B	Excess supply	**(ii)**	Downward pressure on price
C	Excess demand	**(iii)**	Competition among sellers
D	Equilibrium price	**(iv)**	Demand intersects supply

Alternatives: -

    a) A-I

    b) B-II

    c) C-III

    d) D-IV   1

28 A producer supplies 200 units of a good at ₹10 per unit. Price elasticity of supply is 2. How many units will the producer supply if price rises by 10%?   3

29 Differentiate between positive and normative economics. Give examples of each.   3

OR

Differentiate between microeconomics and macroeconomics ?   3

30 Explain the relation between average revenue and marginal revenue.   4

31 Ashima has ₹ 1500 with her which she wants to spend on two goods, X and Y. Cost of good X is ₹15 per pack and good Y costs ₹ 75 per unit. Based on the information given, answer the following questions.

    a) What is the equation of Ashima's budget line?   1

    b) If price of good X becomes ₹ 25, then what will be the new equation of the budget line ?   1

    c) Will Ashima be able to buy a combination of 45X + 10Y? Will she be able to buy this combination at the new price? Give reasons.   2

OR

If demand for a good falls from 50 units to 45 units due to a rise in its price from ₹ 10 to ₹12 per unit,

    a) What can you say about the price elasticity of demand for the good using total expenditure method? Give reasons.   3

    b) What type of goods are generally characterized by this type of elasticity?   1

32 A market for a good is in equilibrium. Along with an improvement in the technology for producing the commodity, the consumers expect the price of the commodity to fall in future. What will be the impact on the market equilibrium for the good? Explain.   4

33 A consumer consumes two goods X and Y and is in a state of equilibrium. Prices of the goods are P_x and P_y respectively. Explain what will happen if

    I. P_x rises   3

    II. $MRS_{xy} > P_x/P_y$ 3

34 Study the table below and answer questions that follow: -

Output	0	1	2	3	4	5	6	7	8
TC	20	30	38	44	49	53	59	67	80

    a) Find total variable cost and marginal cost for the above table.   3
    b) Explain with reasons, the shape of average variable cost.   3

OR

State and explain the conditions for the profit maximizing output for a firm. Give reasons for your answer.   6