General Instructions:
i)   This question paper contains two sections:
               Section A – STATISTICS FOR ECONOMICS
               Section B – INTRODUCTORY MICROECONOMICS
ii)   Questions 1-10 and 18-27 are very short answer questions of 1 mark each.
        Answer them in one sentence each/write the correct option on your answer sheet.
iii)   Questions 11-12 and 28-29 are short answer questions of 3 marks each.
        Answer them in a maximum of 60 to 80 words each.
iv)   Questions 13-15 and 30-32 are short answer questions of 4 marks each.
        Answer them in a maximum of 80 to 100 words each.
v)   Questions 16-17 and 33-34 are long answer questions of 6 marks each.
        Answer them in a maximum of 100 to 150 words each.

SECTION - A   (STATISTICS FOR ECONOMICS)

1.   Define statistics in the singular sense.   1
                                          (OR)
     Identify the statement which is not part of statistics in the plural sense.   1
     (Choose the correct alternative)
     a)   Aggregate of facts   b)   Collected for a pre-determined purpose
     c)   Interpretation and analysis of data   d)   Collected in a systematic manner

2.   Read the following statements: Assertion (A) and Reason (R). Choose the correct alternative
     from those given below.   1
     ASSERTION (A):   Selection of items for a sample is done by 'chance' but not by 'choice of
                          the investigator' in case of Non-Random sampling.
     REASON (R):   In Non-Random sampling, every item of the universe does not have an
                          equal chance of being selected in the sample and judgement of the
                          investigator plays an important role in selection of the sample.
     Alternatives:
     a)   Both Assertion (A) and Reason (R) are true and Reason (R) is the correct
             explanation of the Assertion (A).
     b)   Both Assertion (A) and Reason (R) are true, but Reason (R) is not the correct
             explanation of the Assertion (A).
     c)   Assertion (A) is true, but Reason (R) is false.
     d)   Assertion (A) is false, but Reason (R) is true.

3.   State any two limitations of statistics.   1

4.   Identify secondary data from the following options. (Choose the correct alternative)   1
     a)   Data collected by a newspaper correspondent during elections.
     b)   Data collected from Sarvekshana journals of NSSO.
     c)   Data collected by a researcher on academic performance in Delhi schools.
     d)   Data collected by government officials for Census of India.

5.   Write one point of difference between inclusive and exclusive series.   1

6.   Data pertaining to state-wise production of wheat would be a case of _____ classification.
     (Choose the correct alternative)   1
     a)   Chronological   b)   Spatial
     c)   Qualitative   d)   Quantitative

7.   Which of the following is not true about Telephonic Interviews? (Choose the correct alternative)   1
     a)   It is cheaper than other methods and can be conducted in short period of time.
     b)   This method can cover investigation over a large area.
     c)   Reactions of the respondents can be observed for supplementary information.
     d)   It is possible to assist the respondent by clarifying the questions.

8.   The sum of deviations of items from their mean is always _____.   1
       (Fill up the blank with the correct answer)

9.   When all the observations in a given series were increased by 5, the new mean was found to
       be 12. What was the original mean? (Choose the correct alternative)   1
       a)   5   b)   7   c)   12   d)   10

10.   State any two merits of Arithmetic mean.   1

11.   With the help of a sample table, describe the parts of a table.   3
                                     (OR)
       Tabulate the given information: 3
       In 2020, out of a total of 1,250 applicants in a college, 800 were from commerce stream.
       There were 600 girls in all, out of which 330 were from science stream.
       In 2022, the total number of applicants was 2,000 out of which 900 were boys.
       The number of students from science stream was 800, out of which 450 were girls.

12.   Represent the following year-wise data on number of students using a percentage bar diagram: 3

| No. of | Years | |
Students in	2021	2022
Class X	250	400
Class XI	100	350
Class XII	150	250

13.   a)   Explain any two functions of statistics.   (2+2)
       b)   Discuss the importance of statistics to the government.

14.   a)   What do you mean by random sampling?   (1+3)
       b)   Explain the Mailed Questionnaire method of collecting primary data. Also, state one
              merit and one demerit of this method.

15.   Construct a histogram from the following distribution of total marks obtained by 70 students.
       Also, find the mode graphically.   4

Marks (midpoints)	145	155	165	175	185
No. of students	10	18	20	12	10

                                     (OR)
       Draw a less-than ogive for the given data. Also, find the median graphically.   4

Age (in years)	20-30	30-40	40-50	50-60	60-70
No. of persons	10	15	10	20	5

16.   a)   Differentiate between primary and secondary data. Give one example of each.
       b)   Discuss any three essential features of a good questionnaire to be used for
              conducting a survey.   (3+3)

17.   a)   Find the arithmetic mean for the given data using step deviation method.
              (Take Assumed Mean = 35)   (4+2)

Marks	0-10	10-20	20-30	30-40	40-50	50-60
No. of students	5	10	25	30	20	10

       b)   The mean weight of 40 boys in a class is 70 kg and that of 60 girls is 50 kg.
              Find the combined mean weight of all students in the class.
                                     (OR)

a) Find the missing frequencies X and Y if the mean is 41 marks and total number of observations is 60.

Marks	20	30	40	50	60	70
Frequency	8	**X**	20	10	**Y**	4

b) The mean marks of 100 students were found to be 40. It was found that one observation was misread as 23 instead of 33. Find the correct mean.   4+2

SECTION – B   (INTRODUCTORY MICROECONOMICS)

18. After the Point of Satiety where MU=0, any increase in consumption of the good will lead to_____ : (Choose the correct alternative)   1
    a)   fall in total utility and rise in marginal utility.
    b)   fall in total utility and marginal utility falls and becomes negative.
    c)   rise in total utility and fall in marginal utility.
    d)   Both total utility and marginal utility fall and become negative.

19. Match the Items in Column I with those in Column II and choose the correct alternative given below: 1

Column I	Column II
A. Determination of price of a good.	i. Positive Economics
B. India has a very high rate of growth of population.	ii. Macroeconomics
C. Study of general price levels in an economy.	iii. Normative Economics
D. RBI should keep a check on the rising rate of inflation in India.	iv. Microeconomics

Alternatives:
a)   A-ii, B-i, C-iv, D-iii   b)   A-ii, B-iii, C-iv, D-i
c)   A-iv, B-i, C-ii, D-iii   d)   A-iv, B-iii, C-ii, D-i

20. If Marginal Rate of Transformation is constant, PPC would be : (Choose the correct alternative) 1
    a)   Convex to the origin   b)   Downward sloping straight line
    c)   Concave to the origin   d)   Upward sloping straight line

21. A consumer would buy more of X if: (Choose the correct alternative)   1
    a)   MRS < Px/Py   b)   MRS = Px/Py
    c)   MRS > Px/Py   d)   MRS= Py/Px

22. Which of the following is a property of the indifference curve? (Choose the correct alternative) 1
    a)   Indifference curve slopes upwards.
    b)   Indifference curve is concave to the origin.
    c)   Higher indifference curve represents higher level of satisfaction.
    d)   Two indifference curves can intersect each other.

23. If a rise in price of good Y leads to a rise in the demand for good X, then how are the two goods X and Y related and why?   1

24. How will introduction of new skill development institutes by the government affect the Production Possibility Curve of an economy?   1
(OR)
If an economy operates at a point below the PPC, what does it indicate?   1

25. Arrange the following coefficients of price elasticity of demand in descending order: 1
− 2.0, − 0.45, − 0.83, − 3.1

26. State the Law of Demand.   1

27.   Read the following statements carefully: 1
        Statement 1: In case of relatively inelastic demand, price elasticity is less than one.
        Statement 2: Percentage change in quantity demanded is more than percentage
                      change in price when demand is inelastic.
        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.

28.   Discuss the central problem of 'choice of technique' in an economy.   3
                                        (OR)
        What is an economic problem? Discuss the factors that lead to an economic problem.   3

29.   State the relationship between Total Utility and Marginal Utility.   3

30.   Define Production Possibility Curve. Why is it downward sloping and concave to the origin?   1+3

31.   With the help of diagrams, differentiate between 'increase in demand' and 'increase in
        quantity demanded' of a good.   4

32.   How does a consumer decide how much to buy of a commodity, given income of the
        consumer and price of the commodity?   4
                                        (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 and marginal utility of Y equal to 4, is the consumer in equilibrium? Give reasons.
        What will a rational consumer do in this situation?   4

33.   Read the following text carefully and answer the following questions: 2+4

        Most consumers have a limited amount of income to spend on the things they want to buy. So
        does Raju. Raju, for example, gets ₹250 to spend each week that he can use to buy coffee worth
        ₹10 per cup and the burgers that cost him ₹25 each that he eats for lunch. The Budget Line
        gives all the combinations of two goods Raju can buy such that he completely exhausts his
        income.

        The Budget Line gives the market requirement while the Indifference curve for the consumer
        gives the consumer's preferences. It is where the two curves are tangent to each other that one
        arrives at the consumer's equilibrium so that what the consumer wants to buy and what he is
        capable of buying, given his income and prices of the two goods, are identical.

        a)   What will be the equation of Budget Line for Raju? What is the slope of his
                Budget Line?
        b)   Explain the conditions of consumers equilibrium using Indifference Curve analysis.

34.   a)   At a price of ₹25 per unit the quantity demanded of a commodity is 500 units.
                When its price falls by 10%, the quantity demanded rises by 100 units. Calculate
                its price elasticity of demand and comment on the elasticity.

        b)   Explain the effect of an increase in the income of a consumer on the demand curve
                for a given good X. Use diagram. Give reasons for your answer.   3+3
                                        (OR)
        a)   Explain the effect of an increase in the price of a substitute good on the demand
                curve for a given good X. Use diagram. Give reasons for your answer.

        b)   How do the following factors affect price elasticity of demand for a good?
                Explain with the help of examples.
                i)   Number of Substitutes   ii)   Nature of the commodity   3+3

-x-x-x-x-x-x-x-x-