B K BIRLA CENTRE FOR EDUCATION
SARALA BIRLA GROUP OF SCHOOLS
SENIOR SECONDARY CO-ED DAY CUM BOYS' RESIDENTIAL SCHOOL
ANNUAL EXAMINATION (2024-25)
ECONOMICS (030)

CLASS: XI   **TIME: 3 hrs**
DATE: 18/02/2025   **MAX. MARKS: 80**
Admission no.:   **Roll No.:**

General Instructions:

This question paper contains **two** parts:

Part A - Statistics for Economics (40 marks)

Part B – Micro Economics (40 marks)

All questions in both the sections are compulsory.

- Questions No.**1 – 10 and 18 – 27** are very short-answer questions carrying 1 mark each. They are required to be answered in one word or one sentence each.
- Questions No. **11–12 and 28 – 29** are short-answer questions carrying 3 marks each. Answers to them should not normally exceed 60-80 words each.
- Questions No. **13 – 15 and 30 – 32** are also short-answer questions carrying 4 marks each. Answers to them should not normally exceed 80-100 words each.
- Questions No. **16 – 17 and 33 – 34** are long-answer questions carrying 6 marks each. Answers to them should not normally exceed 100-150 words each.
- Answers should be brief and to the point and the above word limits should be adhered to as far as possible.

STATISTICS – 40 MARKS

1. Shailja submitted a school project on the growth of the telecommunication industry in India.   1)
She follows the steps listed below. Arrange the steps in logical order:

i. Using average and correlation coefficients to analyse numerical information

ii. Collection of data about market share and revenue of various telecom service providers

iii. Organization of data in proper sequence

iv. Presentation of data in the form of tables diagrams and graph

v. Interpretation of data by determining the degree of relationship between various economic variables expressed

a) i , iii, v, ii, iv   **b) i , iv, v, ii, iii**

c) ii , iii, iv, v, i   **d) iii, iv, v, i, iii**

Alternatives:

a) Both statements are true.

b) Both statements are false.

c) Statement 1 is true and Statement 2 is false.

d) Statement 2 is true and Statement 1 is false.

2. Read the following statements carefully and choose the correct alternatives given below: 1)

Statement 1 – Sample method provides better results than survey.

Statement 2 – Sample collect information from every individual from the universe.

Alternatives:

a) Both statements are true.

b) Both statements are false.

c) Statement 1 is true and Statement 2 is false.

d) Statement 2 is true and Statement 1 is false.

3. 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) Census method	i) Data collected from published or unpublished sources
b) Sampling method	ii) Data is collected from each and every unit of population
c) Primary data	iii) Data collected by the investigator himself for the first time for some specific purpose.
d) Secondary data	iv) Data is collected from representative items of a population.

a) (a) – (i), (b) – (ii), (c) – (iii), (d) – (iv)   b) (a) – (ii), (b) – (iv), (c) – (iii), (d) – (i)
c) (a) – (iii), (b) – (ii), (c) – (iv), (d) – (i)   d) (a) – (iv), (b) – (iii), (c) – (i), (d) – (ii)

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

4. Assertion: In case of secondary data, source note is given at the bottom of the table. 1)
  Reason: Source note helps the reader locate primary data.

5. The average weight of a group of 25 boys was calculated to be 52 kg. It was later discovered that 1)
the weight of the boy was wrongly read as 45 kg instead of 54 kg. What is the correct average weight.
  a) 52.36 kg   b) 48.2 kg
  c) 49.84 kg   d) 51.64 kg

6. Series are arranged for calculation of median in: 1)
a) Ascending order   b) Descending order
c) Any one out of (a) and (b)   d) None of the above

7. An index number of 150 indicates that the value is…………. times that of the base period. 1)
a) 150   b) 1.5
c) 50   d) none of these

8. The following data shows marks of a student in a class, in four subjects except 1)
  economics.   40, 50, 55, 58
  How many marks did the student score in economics such that the average marks is 56.2
  a) 78   b) 56.2
  c) 50.75   d) 100

9. 'D' denotes the difference between: 1)
a) Ranks of series I and series II   b) Mean deviation and standard deviation
c) Positive and Negative correlation   d) Coefficient of variation and correlation

10. For a skewed distribution, median = 30 and mode is = 35. What is the value of mean?   1)
a) 35   b) 30
c) 32.5   d) 27.5

11. 'Statistical methods help analyse economic problems and formulate policies to solve them'.   3)
Explain this statement.

12. Find out the arithmetic mean using the step deviation method: 3)

Item	Number of families
More than 0	28
More than 10	24
More than 20	14
More than 30	4

OR

The following table shows monthly wage rate of workers in a factory. Find out the average wage rate by short cut method.

Wage rate	20-29	30-39	40-49	50-59	60-69
No. of students	20	10	6	4	5

13. What is the difference between the construction of a Questionnaire and a Schedule?   4)
Highlight some of the desired qualities of a good questionnaire.

14. In a sample study about coffee habits in two cities 'A' and 'B' was received.   4)
City 'A' females were 40%, total coffee takers were 45% and male non-coffee takers were 20%.
City 'B' males were 55%, male non- coffee takers were 30% and female coffee takers were 15%.
Represent the above data in a tabular form. Name the different parts of a table.

15. Calculate the mode from the following data (Use Grouping method)   4)

Marks(X)	0-10	10-20	20-30	30-40	40-50	50-60	
No. of students	5	6	10	4	7	3	

OR

Find out the median value with the help of the following data:

Marks	No. of students
1 – 5	6
6 – 10	9
11 – 15	15
16 – 20	11
21 - 25	9

16. (a) Construct index number of prices of 2004 for the following data by: 4+2)
   (i) Laspeyres's method   (ii) Paasche's method

COMMODITY	PRICE (P_0)	QUANTITY (Q_0)	PRICE(P_1)	QUANTITY(Q_1)
A	10	30	12	50
B	8	15	10	125
C	6	20	6	30
D	4	12	6	20

   (b) Explain two points as to how index numbers are useful.

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

  (a) Construct Index Number of prices from the data given below by applying Fisher's Method.   3 + 3

COMMODITIES	BASE YEAR		CURRENT YEAR	
	PRICE	QUANTITY	PRICE	QUANTITY
A	5	25	6	30
B	10	5	15	6
C	2	15	3	20
D	3	12	5	15

  (b) Describe the three main problems which are faced in construction of Index number of prices.

17. (a) Calculate Spearman's rank correlation from the following data: 3+3)

X	80	78	75	75	68	67	60	59
Y	12	13	14	14	14	16	15	17

  (b) Calculate correlation coefficient by step deviation method:

PRICE	5	10	15	20	25
DEMAND (kgs)	40	35	30	25	20

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ECONOMICS – 40 MARKS

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18. In which situation, can PPC be a straight line: 1)
    a) When MRT is decreasing   b) When MRT is increasing
    c) When MRT is constant   d) None of these

19. In case of two goods the condition of consumer equilibrium is: (choose the correct alternative)   1)
(a) $MUx.Px = MUy.Py$ (b) $MUx/Px = MUy/Py$
(c) $MUx. MUy. = Px. Py$ (d) $MUx Py/ MUy Px$

20. A firm is operating with 3 workers and the production is 136 units. Now that it has decided to   1)
add another worker and it was noticed that the production went up to 160 units. Based on the above
information, calculate the Marginal product of 4th unit of worker.
a) 160 units   b) 36 units
c) 24 units   d. 136 units

21. The cost of self-owned inputs of a firm is known as _____ 1)
a) Implicit cost   b) Imputed Cost
c) Explicit cost   d) Both a & b

22. A firm, while keeping its price constant, is able to sell more of its output. 1)
What will be the shape of the MR curve of the firm?
a) MR curve will be upward sloping   b) MR curve will be downward sloping
c) MR curve will be a horizontal straight-line   d) MR curve will be a vertical straight line

23. Subsidy on the production of a commodity results in…………... 1)
a) Increase in supply   b) Decrease in supply
c) Both a & b   d) No change in supply

24. 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

 Assertion (A): There is absence of abnormal profits and abnormal losses in the long run in case of   1)
perfect competition
Reason (R): Under perfect competition, there are no artificial and natural barriers for entry of new firms and
exit of exiting firms

25. _____ refers to the minimum price, fixed by the Government, which is above the equilibrium price.   1)
(a) Price floor   (b) Minimum Support Price
(c) Both (a) and (b)   (d) none of these

26. Alternatives:
(a) Both the statements are true.
(b) Both the statements are false.
(c) Statement 1 is true and Statement 2 is false
(d) Statement 2 is true and Statement 1 is false

 Statement1: Price floor is also known as support price which is normally fixed below the   1)
equilibrium price to protect the producers.
Statement2: Price ceiling is the Government fixed price, which is normally above the equilibrium price.

27. In a perfectly competitive market: 1)
(a) Firm is a price maker and industry is a price taker
(b) Firm is a price taker and industry is a price maker
(c) Both are price makers
(d) Both are price takers

28. Why is PPC concave in shape? Use diagram.   3)

29. Explain the meaning of diminishing MRS with the help of a numerical example.   3)
OR
Determine consumer's equilibrium with the help of utility analysis in case of a single commodity.

30. The MU schedule for goods A and B is given. Price of both the goods is ₹1 each and income   4)
of Mr. Narendra is assumed to be ₹6. How many units of both the goods should be purchased by him so that
his total utility is maximised? Draw diagram to show consumer's equilibrium.

UNITS	1	2	3	4	5	6
MU_A	14	12	10	6	4	2
MU_B	13	12	10	3	2	1

31. Giving reason, state whether the following statements are true or false: 4)
(i) AP will increase only when MP increases.
(ii) Under diminishing returns to a factor TP continues to increase till MP reaches zero.

OR

What is the behaviour of (a) Average Fixed Cost and (b) Average Variable Cost as more and more units
of a good are produced?

32. (a) Market for a good is in equilibrium. There is simultaneous decrease both in demand and supply   2)
 but there is no change in price. Show diagrammatically.
   (b) How and where are prices determined for a perfectly competitive firm? Explain with the help
of a diagram.   2)

33. Read the following news article and answer the questions that follow.

CNG, piped cooking gas price hiked in Mumbai on rise in input costs

After Delhi, CNG price in Mumbai has been hiked by Rs 2/- per kg and the rate of cooking gas
piped to houses by Re 1 due to rise in input costs. Mahanagar Gas Ltd, which retails CNG to automobiles
and piped natural gas to households for cooking purposes in Mumbai and surrounding cities, said the
increased prices will come into effect from the intervening night of July 8 and 9.
 "To meet the increasing volume of CNG and domestic piped natural gas (PNG) segments and due to further
shortfall in domestic gas allocation, MGL is sourcing additional market priced natural gas (imported LNG)
which has resulted in higher gas cost," the firm said in a statement.
(Source: Business Standard E paper Jul 08 2024)
a. Show diagrammatically the effect of "Rise in input prices" on the supply of CNG and PNG.   2)
b. Government decides to reduce taxes on import of CNG & PNG. Explain how will it affect
supply of a commodity? Use diagram.   2)
c) The price of CNG increases from Rs.75/- to Rs.77/- and supply increases from 100kg to 150kgs.
Calculate elasticity of supply and comment on its elasticity.   2)

OR

a. Define price ceiling. Explain 'black marketing' as a direct consequence of price ceiling.   4)
b) Explain the effect on equilibrium price and quantity when (i) income of the consumer increases
and (ii) Decrease in price of substitute good. Draw diagram only.   2)

34. (i) If the price of X commodity increases and the demand for Y commodity falls.   3)
How are the two commodities related to each other. Explain with the help of a diagram the effect of this
change on the demand for commodity Y.

   (ii) Explain Law of Demand with two assumptions and two exceptions.   3)