

Time: 3-hour
Total No of Questions:34
Total No of printed pages:6

M.M:80

General instructions:

1. This question paper contains two sections:
Section A – Introductory Microeconomics
Section B – Statistics for Economics
2. All the questions in both the sections are compulsory. Marks are indicated against each question.
3. Question number 1 to 10 and 18 to 27 are Very Short-Answer Questions carrying 1 mark each.
4. Question number 11 & 12 and 28 & 29 are Short-Answer Questions carrying 3 marks each.
5. Question number 13 to 15 and 30 to 32 are also Short-Answer Questions carrying 4 marks each.
6. Question number 16 & 17 and 33 & 34 are Long Answer Questions carrying 6 marks each.

SECTION A: INTRODUCTORY MICROECONOMICS

Q1 Resource allocation is considered efficient when _____ (1)

- a) increase in production of one is possible without reducing the production of the other.
- b) increase in production of one good is possible only if production of other good falls.
- c) production of both can be increased.
- d) production of both can be decreased.

Q2 Read the following statements - Assertion (A) and Reason (R). Choose the correct alternative from the options that follow. (1)

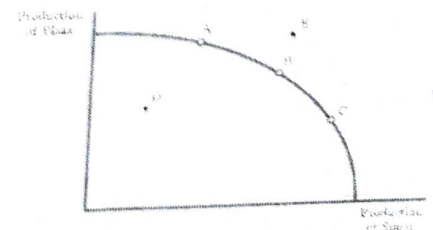
Assertion (A): Positive Economics refrains from economic value judgments.

Reason (R): Positive statements can be verified as true or false by comparing with statistical data

- a) Both (A) and (R) are true and (R) is the correct explanation of (A).
- b) Both (A) and (R) are true and (R) is not the correct explanation of (A).
- c) (A) is true, but (R) is false.
- d) (A) is false, but (R) is true

Q3 Which of the following is a correct statement? (1)

- a) Point 'E' represents an attainable combination.
- b) Point 'D' represents economy producing less than its potential.
- c) Point 'A', 'B', 'C' represents unattainable combinations.
- d) PPC is upward sloping curve.



Q4 Consumer consumes two goods X and Y, how will Budget Line (BL) be affected if price of X falls, price of Y and income of household remains constant. (1)

- a) Budget Line rotates inwards on the Y axis.
- b) Budget Line shifts out to the right.
- c) Budget Line remains unaffected.
- d) Budget Line rotates outwards on X axis.

Q5 If price of Good A is Rs 15/unit and that of Good B Rs 60/Unit, the consumer Marginal rate of substitution at the point of equilibrium will be _____.

- a) 3 b) 75 c) 45 d) 4

Q6 Monotonic preferences in an indifference curve analysis means that: (1)

- a) Total utility increases as quantity of goods with the consumer increases.
 b) Total utility decreases as quantity of goods with the consumer increases.
 c) Total utility increases as quantity of goods with the consumer decreases.
 d) Total utility is constant with more consumption.

Q7 Read the following statements - Assertion (A) and Reason (R). Choose the correct alternative from the options that follow. (1)

Assertion (A): When the price of a good increases, demand for its substitute good falls and vice versa.

Reason (R): Substitute goods are those goods which can be interchanged for use.

- a) Both (A) and (R) are true and (R) is the correct explanation of (A).
 b) Both (A) and (R) are true and (R) is not the correct explanation of (A).
 c) (A) is true, but (R) is false.
 d) (A) is false, but (R) is true

Q8 The table below represents: (1)

P_Y (Rs)	Q_Y (Units)
20	150
20	110

- a) Increase in Demand b) Contraction of Demand
 c) Change in Quantity Demanded d) Decrease in Demand

Q9. Demand curve slopes downward because of α $\frac{1}{P}$. (1)

Q10 The demand functions of three consumers present up in the market are (1)
 $Q_{Da} = 30 - 2P$, $Q_{Db} = 40 - 3P$, $Q_{Dc} = 50 - 4P$. Market demand at price of Rs 7 will be:

- a)60 b)63 c)57 d)65

Q11 Elaborate on the central problem of 'What to produce' faced by an economy. (3)

Q12 Using a well labelled graph explain how does the behavior of Marginal Utility impact (3)
 the Total Utility derived from consuming any good.

Q13 a) Explain why is P.P.C concave to origin? (2+2=4)

b) Illustrate on a suitably labeled graph, the impact on India's Production possibility frontier when the Government had introduced MGNREGA, an unemployment generation program.

Q14 A consumer consumes only two goods X and Y whose prices are Rs 4 and Rs 5 per (4)
 unit respectively. If consumer chooses a combination of goods with marginal utility of X equal to 24 and that of Y equal to 40.

Is the consumer in Equilibrium? If not, then what should consumer do to reach equilibrium.

Q15 Read the passage and answer the following questions.

(2+1+1=4)

An analysis by Care Edge Ratings shows that the demand for vehicles powered by traditional fuels is progressively shifting towards those that utilise alternative fuels. The share of petrol vehicle sales, as a percentage of total vehicle sales, has recorded a significant decline, decreasing from 86% in 2020 to 76% in 2023 while for diesel vehicles it has slightly decreased from 12% in 2020 to 11% in 2023. The sales volume of alternative fuel-driven vehicles recorded a growth of more than 400% in Calendar

Year (CY) 2023 as compared to CY2020, though on a much smaller base.

At present, EVs offer the lowest lifetime cost, followed by CNG. Demand for EVs is booming, driven by government incentives, reducing battery costs, and rising fuel costs, especially petrol and diesel. India aims for 30% of all vehicle sales to be electric by 2030.

To encourage the growth of charging stations, the Indian government has launched several schemes to incentivize the development of alternative fuel infrastructure, such as subsidies and grants.

While EVs have a higher upfront cost, their lower fuel and maintenance expenses, coupled with government incentives, make them relatively more cost-competitive compared with petrol and diesel vehicles in the long run, especially for high-mileage drivers.

a) 'While EVs have a higher upfront cost, their lower fuel and maintenance expenses, make them relatively more cost-competitive compared with petrol and diesel vehicles in the long run, especially for high-mileage drivers'.

Illustrate using a well labelled diagram Impact on Demand for EV cars.

b) State any two reasons that will make demand for EV vehicle elastic with respect to its own price.

c) Does the demand of a commodity always rise when the price of other related good increases. Defend or Refute giving reason.

Q16 a) How is Budget set different from Budget line?

(2+4=6)

b) Explain the determination of Consumer's Equilibrium with the help of Indifference curve analysis using ordinal approach.

Q17 a) A consumer buys 18 units of a good at a price of Rs 9 per unit. The price elasticity of demand for the good is (-)1. Calculate the number of units the consumer will buy at a price of Rs 10 per unit. (3+3=6)

b) When the price of a good falls from Rs 10 to Rs 8 per unit, its demand rises from 20 units to 24 units. What is the price elasticity of demand using Total Expenditure method? Also Illustrate the elasticity of demand on the graph.

SECTION B: STATISTICS FOR ECONOMICS

Q18 _____ and _____ are the non-sampling errors that can occur during a statistical survey. (1)

Q19 Census method is suitable for investigation in which of the following situation: (1)

- The size of population is large.
- high degree of accuracy is not required.
- there are widely diverse items.
- intensive examination of widely diverse items is not required.

Q20 To conduct a survey of an illiterate respondent, the best method for collection of data will be: (1)

- Indirect interview
- Personal interview
- Information from local sources
- Mailed Questionnaire

Q21 Read the following statements carefully and choose the correct alternative from the following: (1)

Statement 1: Random sampling method is impartial and economical.

Statement 2: In Sampling method only limited number of items are investigated.

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.

Q22 In an exclusive series:

(1)

- a) Both class limits are considered.
- b) The upper limit is excluded.
- c) Both class limits are excluded.
- d) Lower limit is excluded

Q23 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 Continuous variable	i) The values of variable skip from one integer to another.
B Spatial classification	ii) Variable can assume value in fraction.
C Discrete variable	iii) Classification of Data according to geographical location.
D Chronological classification	iv) Classification of Data according to time period.

- a) (A)-(iv); (B) -(iii); (C) - (i); (D) - (ii)
- b) (A)-(ii); (B) -(iii); (C) - (i); (D) - (iv)
- c) (A)-(iii); (B) -(ii); (C) - (iv); (D) - (i)
- d) (A)-(ii); (B) -(i); (C) - (ii); (D) - (iv)

Q24 The degree values of following expenditures of an average working class Family, for constructing a pie chart, would be

(1)

Items	Food	Clothing	Housing	Fuel	Electricity
Total Expenditure (%)	20	40	25	5	10

- a) 75, 120, 20, 60, 85
- b) 72, 120, 18, 54,
- c) 72, 144, 90, 18, 36
- d) 74, 126, 24, 56, 80

Q25 The sum of deviations of the items from the mean is:

(1)

- a) Zero
- b) Minimum
- c) Maximum
- d) One

Q26 Mean of 200 observations is found to be 60. If at the time of computation two items are wrongly taken as 97 and 46 instead of 89 and 84, find the corrected mean of the series.

(1)

- a) 59.50
- b) 60.50
- c) 59.85
- d) 60.15

Q27 A shoe trader should consider the _____ size of shoes, while placing an order of shoes of various sizes.

- a) modal b) median c) mean d) both (a) and (b)

Q28 Distinguish Primary Data and Secondary Data.

Q29 Out of total number of 5000 people who applied for DDA flats, 2550 were males. Out of total applicants, 3100 were of the service class and others, business class. The number of male applicants who belong to business class were 900. Tabulate the given information.

Q30 a) State two objectives of classification. (1+3=4)

b) Prepare a frequency distribution by Inclusive method taking class interval of 7 from the following data:

28	17	15	22	29	21	23	27	18	12
1	8	3	10	5	20	16	12	8	4
3	36	27	18	9	2	4	6	32	31
11	9	7	1	5	37	32	28	26	24

Q31 The following table shows Production of Electricity from different sources in India during 2020-21 to 2023-24. Present the data using a Sub-Divided Bar diagram. (4)

Year	Hydro-Electricity (in million KWTs)	Thermal Electricity (in million KWTs)
2020-21	46	64
2021-22	49	71
2022-23	48	82
2023-24	51	89

Q32 From the following distribution construct the 'More than' ogive: (4)

Capital (in lakh)	Number of Companies
0-10	5
10-20	12
20-30	15
30-40	22
40-50	14
50-60	4

Q33 a) Calculate Arithmetic Mean of the following data by Short-cut method and taking assumed mean as 25. (4+2=6)

Marks(X)	C.f
Less than 10	5
Less than 20	12
Less than 30	24
Less than 40	40
Less than 50	46
Less than 60	50

b) In a firm 70 workers of the textile unit get a mean wage of Rs 300 while the remaining 30 workers of the non-textile unit get a mean wage of Rs 200. Find the mean wage distributed by the firm.

Q34 a) Calculate Median from the following data:

(4+2=6)

Age (in Years)	No. of Persons
0-10	8
10-20	30
20-30	40
30-40	12
40-50	10

b) Calculate Mode from the above series by Inspection method.