

Roll No.....

Time allowed : 3 hours

Maximum marks : 100

Total number of questions : 8

Total number of printed pages : 7

P A R T – A

*(Answer Question No.1 which is compulsory
and any two of the rest from this part.)*

1. (a) State, with reasons in brief, whether the following statements are correct or incorrect :
- (i) In economics, controlled experiments are possible.
 - (ii) Demand for a commodity by a consumer is not the same thing as his desire to buy it.
 - (iii) In a modern economy, most of the production takes place for self-consumption.
 - (iv) A trade deficit invariably means a deficit on the current account in balance of payments.
 - (v) The evolution of money is a discontinuous process.
- (2 marks each)*
- (b) Choose the most appropriate answer from the given options in respect of the following :
- (i) Human wants are –
 - (a) Always fixed
 - (b) Unlimited
 - (c) Limited
 - (d) Likely to decrease over time.
 - (ii) In a capitalist economy, basic economic problems are primarily solved by –
 - (a) Government intervention
 - (b) Market mechanism
 - (c) Creating unlimited resources
 - (d) A mixture of government intervention and free market.
 - (iii) If a product is inferior, then income effect is –
 - (a) Positive
 - (b) Negative
 - (c) Zero
 - (d) Either positive or negative.

- (iv) Total product is maximum, when –
- (a) Marginal product is maximum
 - (b) Average product is maximum
 - (c) Marginal product is equal to zero
 - (d) Marginal product is equal to average product.
- (v) In the short run, total cost is equal to –
- (a) Variable cost
 - (b) Fixed cost
 - (c) Fixed cost + variable cost
 - (d) Marginal cost + average cost.
- (vi) A firm in the perfect competition faces a –
- (a) Perfectly inelastic demand curve
 - (b) Perfectly elastic demand curve
 - (c) Perfectly inelastic supply curve
 - (d) Perfectly elastic supply curve.
- (vii) A firm maximises profits where –
- (a) Marginal revenue = marginal cost
 - (b) Marginal revenue = average cost
 - (c) Marginal revenue = average revenue
 - (d) Marginal revenue = total cost.
- (viii) The sector of the Indian economy which provides largest employment is –
- (a) Agriculture
 - (b) Industry
 - (c) Service
 - (d) None of the above.
- (ix) The agency that estimates national income in India is –
- (a) Central Statistical Organisation (CSO)
 - (b) Reserve Bank of India (RBI)
 - (c) National Sample Survey Organisation (NSSO)
 - (d) Ministry of Finance, Government of India.

(x) The Reserve Bank of India was nationalised in the year –

- (a) 1935
- (b) 1949
- (c) 1969
- (d) 1980.

(1 mark each)

2. (a) Distinguish between **any three** of the following :

- (i) 'Cardinal utility' and 'ordinal utility'.
- (ii) 'Inferior goods' and 'Giffen goods'.
- (iii) 'GDP at factor cost' and 'GDP at market price'.
- (iv) 'Primary deposits' and 'derived deposits'.

(3 marks each)

(b) Re-write the following sentences after filling-in the blank spaces with appropriate word(s)/figure(s) :

- (i) A consumer compares _____ from the goods purchased with the price to be paid for it.
- (ii) Addition to total cost on account of the production of an additional unit is called _____.
- (iii) The process of rapid industrialisation of the Indian economy began with _____ plan.
- (iv) The base year for the current new series of national income estimates in India is _____.
- (v) The acquisition of fixed assets and accumulation of stocks is known as _____.
- (vi) _____ of demand measures the responsiveness of the quantity demanded of a good to changes in its own price, other things remaining the same.

(1 mark each)

3. Attempt **any three** of the following :

- (i) "Economics can be defined as a study of an economic system." Elaborate.
- (ii) "Capital is a man-made productive resource." Explain.
- (iii) Discuss the negative impact of high population growth on economic development.
- (iv) Discuss the currency note issue function of the Central Bank.
- (v) State the objectives of World Trade Organisation (WTO).

(5 marks each)

4. Attempt **any three** of the following :

- (i) Discuss the significance of irrigation for agriculture operations in India. What are the drawbacks of irrigation system in our country ?
- (ii) What is 'price discrimination' ? State the conditions necessary for price discrimination.
- (iii) What do you mean by 'globalisation' ? Mention the sources of gains from globalisation.
- (iv) Explain Fisher's version of Quantity Theory of Money.
- (v) Discuss two immediate causes of economic crisis of 1991 in India.

(5 marks each)

P A R T – B

(Answer Question No.5 which is compulsory and any two of the rest from this part.)

5. (a) State, with reasons in brief, whether the following statements are correct or incorrect :

- (i) Statistics studies qualitative phenomenon.
- (ii) Sample study is suitable for large universe.
- (iii) Geometric mean cannot be calculated if one or more observations are zero or negative.
- (iv) Two variables having cause and effect relationship would have high correlation coefficient, but converse is not true.
- (v) Any year can be chosen as base year while constructing index numbers.

(2 marks each)

(b) Choose the most appropriate answer from the given options in respect of the following :

- (i) Statistics in plural sense refers to –
 - (a) Statistical data
 - (b) Statistical methods
 - (c) Applied statistics
 - (d) Inductive statistics.
- (ii) A researcher would prefer primary data when –
 - (a) Accuracy is very important
 - (b) Adequate funds are not available
 - (c) Time available to complete the study is very short
 - (d) Much accuracy is not required.

- (iii) The measure of central tendency which is most affected by extreme observations is –
- (a) Mean
 - (b) Median
 - (c) Geometric mean
 - (d) Mode.
- (iv) Out of the following which is not a measure of dispersion –
- (a) Mean deviation
 - (b) Standard deviation
 - (c) Harmonic mean
 - (d) Range.
- (v) The graphical representation of cumulative frequencies is termed as –
- (a) Histogram
 - (b) Ogive
 - (c) Frequency curve
 - (d) Histogram.
- (vi) r^2 represents –
- (a) Co-efficient of correlation
 - (b) Probable error
 - (c) Co-efficient of determination
 - (d) Co-efficient of non-determination.
- (vii) Study of time series enables us –
- (a) To understand the past behaviour of data
 - (b) To forecast the future behaviour
 - (c) To compare the actual performance with the expected performance.
 - (d) All of the above.
- (viii) Time reversal test is satisfied by –
- (a) Paasche's index number
 - (b) Laspeyre's index number
 - (c) Fisher's index number
 - (d) Walshe's index number.

- (ix) Out of the following which is a positional average –
- (a) Arithmetic mean
 - (b) Geometric mean
 - (c) Median
 - (d) Harmonic mean.
- (x) Seasonal variations in the time series can be observed if the time interval between successive observations is –
- (a) Greater than one year
 - (b) Equal to one year
 - (c) Less than one year
 - (d) None of the above.

(1 mark each)

6. (a) Distinguish between **any three** of the following :
- (i) 'Exclusive class' and 'inclusive class'.
 - (ii) 'Line diagram' and 'simple bar diagram'.
 - (iii) 'Deciles' and 'percentiles'.
 - (iv) 'Quantity index numbers' and 'value index numbers'.

(3 marks each)

- (b) Re-write the following sentences after filling-in the blank spaces with appropriate word(s)/figure(s) :
- (i) Descriptive statistics deals with _____.
 - (ii) Systematic arrangement of data into rows and columns is known as _____.
 - (iii) The difference between the largest and the smallest observation is called _____.
 - (iv) Probable error is a measure to test the reliability of an observed _____.
 - (v) When the value of dependent variable changes by a constant percentage, it is called _____.
 - (vi) _____ is a branch of applied mathematics which specialises in data.

(1 mark each)

7. (a) Discuss the usefulness of statistics in economics.

(5 marks)

- (b) To be a good statistical average, it must meet certain requisites. Discuss.

(5 marks)

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- (c) A helicopter flies around a square field, the sides of which measure 100 kms. each. The helicopter covers at a speed of 100 kms. per hour the first side, at 200 kms. per hour the second side, at 300 kms. per hour the third side and 400 kms. per hour the fourth side. Find out the average speed round the square.

(5 marks)

8. Attempt **any three** of the following :

- (i) Calculate standard deviation and co-efficient of variation from the following data using step deviation method :

Marks	10-20	20-30	30-40	40-50	50-60	60-70
No. of Student (s)	2	8	15	10	4	1

(5 marks)

- (ii) Calculate the trend values by the method of moving averages for the data given below. Assume that in the given sales data, 4-yearly cyclical variations is observed:

Year	Sales (Rs. in '000)
2000	500
2001	520
2002	550
2003	470
2004	510
2005	540
2006	560
2007	570
2008	590
2009	610

(5 marks)

- (iii) From the following chain base index numbers, find the fixed base index numbers :

Year	2005	2006	2007	2008	2009
Chain Base Index Number	80	110	120	90	140

(5 marks)

- (iv) Calculate Karl Pearson's co-efficient of correlation for the following data regarding price and demand of sugar using 25 and 16 respectively as the assumed average price per kg. (in Rs.) and average quantity demanded (in '000 kgs.) :

Price Per Kg. (Rs.)	21	22	23	24	25	26	27	28	29	30
Demand (in '000 Kgs.)	18	19	19	16	17	16	16	15	13	11

(5 marks)

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