Roll No..........................

Time allowed : 3 hours   *Maximum marks : 100*

Total number of questions : 8   *Total number of printed pages : 7*

PART—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 true or false :

    (i) In a capitalist economy, all means of production are exclusively owned by the government.

    (ii) A straight line demand curve has the same elasticity at each point on the curve.

    (iii) Transfer incomes are excluded from the calculation of national income.

    (iv) In the short-run, a firm that is operating at its shutdown point is earning no profit or no loss.

    (v) Depreciation of a currency makes the exports costlier and hence proves inflationary.

(2 marks each)

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

    (i) A consumer will continue to purchase a good until its —

      (a) Marginal utility falls to zero

      (b) Total utility falls to the level of price

      (c) Marginal utility falls to the level of its price

      (d) Total utility falls to zero.

    (ii) Quantity theory of money explains the relationship between quantity of money and —

      (a) Level of employment

      (b) National income

      (c) General price level

      (d) Quantity of investment.

    (iii) Which one of the following curves is not 'U' shaped —

      (a) Average variable cost curve

      (b) Average cost curve

      (c) Average fixed cost curve

      (d) Marginal cost curve.

(iv) Which one of the following was not the immediate cause of the 1991 economic crisis —

(a) Rapid growth of population

(b) Severe inflation

(c) Expanding fiscal deficits

(d) Rising current account deficit.

(v) Which one of the following is not a function of the central bank —

(a) Monopoly of note issue

(b) Custodian of foreign exchange reserves

(c) Lender of the last resort

(d) Conduct of fiscal policy.

(1 mark each)

(c) What is meant by 'credit creation' by the commercial banks ? Illustrate its process.

(5 marks)

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

(i) 'Value in use' and 'value in exchange'.

(ii) 'Revenue budget' and 'capital budget'.

(iii) 'A firm' and 'an industry'.

(iv) 'Quantitative credit control measures' and 'qualitative credit control measures'.

(3 marks each)

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

(i) The _____ is defined as that time period over which a firm can vary all factors of production.

(ii) In the modern economy, most of the production does not take place for _____.

(iii) An important reason for migration of population from rural to urban areas has been the comparative lack of _____ in the rural areas.

(iv) _____ came into existence to overcome the difficulties of the barter system.

(v) The _____ is essentially a place where member governments try to sort out trade problems they face with each other.

(vi) National income estimates do not cover _____ even though they may be adding to national product.

(1 mark each)

3. (a) Define 'market mechanism'. How does it help us to deal with the problem of allocation of resources ?

(5 marks)

(b) What do you mean by the term 'revenue' ? Examine the relationship between average revenue and marginal revenue when a firm is faced with a linear downward sloping demand curve.

(5 marks)

(c) Discuss the structure of the Indian economy as a mixed economy.

(5 marks)

4. Attempt *any three* of the following :
   (i) Explain the income effect and substitution effect of a change in the price of a good.
  (ii) "Product differentiation and selling expenses form the foundation of monopolistic competition." Explain.
 (iii) Discuss the major objectives of Five Year Plans in India.
 (iv) Define 'liquidity'. Discuss the factors which influence liquidity of an asset.
  (v) Discuss briefly the measures taken by the government to bring in structural reforms in Indian economy.

(5 marks each)

PART — 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 true or false :
   (i) Statistical laws are not exact.
  (ii) Arithmetic mean is very much affected by extreme observations.
 (iii) A distribution having higher value of dispersion is said to be more uniform or consistent.
 (iv) The coefficient of correlation is not independent of origin and scale of measurement.
  (v) Index numbers are the specialised averages.

(2 marks each)

(b) Choose the most appropriate answer from the given options in respect of the following :
   (i) In ancient times, statistics was known as —
      (a) The science of kings
      (b) The science of Statecraft
      (c) Political arithmetic
      (d) All of the above.

(ii) Statistical data are of two types. These are —

    (a) Primary data and technical data

    (b) Primary data and secondary data

    (c) Primary data and personal data

    (d) None of the above.

(iii) If the population is shown for each of the States in India, then we have data which are classified —

    (a) Chronologically

    (b) Geographically

    (c) Quantitatively

    (d) Qualitatively.

(iv) The difference between the maximum and minimum values in a given set of data is called —

    (a) Class interval

    (b) Frequency

    (c) Cumulative frequency

    (d) Range.

(v) In any pie-chart, the sum of central angle is —

    (a) 90º

    (b) 180º

    (c) 270º

    (d) 360º.

(vi) The value of the variable which occurs most frequently is called —

    (a) Mode

    (b) Mean

    (c) Median

    (d) Weighted mean.

(vii) Equation $Y_t = a.b^t$ represents —

    (a) Linear trend

    (b) Exponential trend

    (c) Parabolic trend

    (d) None of the above.

(viii) Which one of the following measures of central tendency can be used for further mathematical treatment —

(a) Median

(b) Arithmetic mean

(c) Mode

(d) None of the above.

(ix) Seasonal variations are absent if the time interval between successive observations is —

(a) Less than or equal to one year

(b) Equal to one year

(c) More than one year

(d) None of the above.

(x) The index number that uses base year quantities as weights is known as —

(a) Laspeyre's index

(b) Paasche's index

(c) Marshall-Edgeworth index

(d) Walsch's index.

(1 mark each)

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

(i) 'More than cumulative frequency table' and 'less than cumulative frequency table'.

(ii) 'Simple bar diagram' and 'multiple bar diagram'.

(iii) 'Linear correlation' and 'non-linear correlation'.

(iv) 'Time reversal test' and 'factor reversal test'.

(3 marks each)

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

(i) _____ is indispensable for functioning of the State.

(ii) _____ the size of sample, more accurate results are likely to be.

(iii) Graphical representation of a time series is known as _____.

(iv) The difference between upper and lower limits of a class gives _____ of the class.

(v) The sum of deviations of the variables from their median, ignoring '+' and '–' sign, is always _____.

(vi) _____ is always computed from arithmetic mean.

(1 mark each)

7. Attempt *any three* of the following :

    (i) Define 'statistics' and discuss its importance in business and management.

                                                  (5 marks)

    (ii) Define 'geometric mean'. Point out its merits and demerits.

                                                  (5 marks)

    (iii) From the following distribution of marks obtained by students in a certain examination, find the median marks :

Marks Obtained	0-20	21-30	31-40	41-50	51-60	61-70	71-80
No. of Students	38	42	120	72	60	36	32

                                                  (5 marks)

    (iv) What is 'Lorenz curve' ? What are its uses ?

                                                  (5 marks)

8. Attempt *any three* of the following :

    (i) Following information relate to payment of weekly wages to workers in two firms, Firm-A and Firm-B :

	Firm-A	*Firm-B*
No. of workers	160	150
Average weekly wages *(Rs.)*	560	575
Standard deviation of wages *(Rs.)*	20	25

      Find out — (i) Which firm's weekly wage bill is higher; and (ii) in which firm payment of wages is more uniform.

                                                  (5 marks)

    (ii) "Correlation fails to explain cause and effect relationship between the variables." Comment.

                                                  (5 marks)

    (iii) From the following information, calculate correlation coefficient between x and y :

$$\Sigma x = 36 \qquad\qquad \Sigma y = 60 \qquad n = 6$$
$$\Sigma(x - \bar{x})^2 = 50 \qquad \Sigma(y - \bar{y})^2 = 106$$
$$\Sigma(x - \bar{x})(y - \bar{y}) = -67$$

                                                  (5 marks)

Contd...

(iv) Calculate the trend values by the method of moving averages, assuming 4-yearly cycle from the following data :

Year	Production (In Lakh Tons)	Year	Production (In Lakh Tons)
2000	242	2006	251
2001	250	2007	257
2002	252	2008	260
2003	249	2009	265
2004	253	2010	262
2005	255		

(5 marks)

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