

Roll No.....

Time allowed : 3 hours

Maximum marks : 100

Total number of questions : 8

Total number of printed pages : 8

**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) The nature of economic system is determined by the type of ownership over means of production.
  - (ii) A computer application may have utility for one person but no utility for another.
  - (iii) Product differentiation is present in perfect competition.
  - (iv) Transfer payments are excluded while calculating national income.
  - (v) Monetary policy is meant to deal with inflation only.

*(2 marks each)*

- (b) Write the most appropriate answer from the given options in respect of the following :
- (i) 'General price theory' comes under the scope of —
    - (a) Micro economics
    - (b) Macro economics
    - (c) Both Micro and Macro economics
    - (d) None of the above.
  - (ii) In case of Giffen goods, demand curve will be —
    - (a) Upward sloping towards right
    - (b) Downward sloping towards right
    - (c) Parallel to X-axis
    - (d) Parallel to Y-axis.
  - (iii) For luxury goods, income elasticity of demand is —
    - (a) Greater than one
    - (b) Less than one
    - (c) Equal to zero
    - (d) Equal to one.

- (iv) Which cost in short run diminishes regularly with increase in output —
- (a) Total fixed cost
  - (b) Average fixed cost
  - (c) Average total cost
  - (d) Total cost.
- (v) What should a firm do when marginal revenue is greater than marginal cost —
- (a) Firm should continue with that output
  - (b) Firm should expand output
  - (c) Firm should cut down the output
  - (d) Firm should stop production.
- (vi) How many days of employment in a financial year is guaranteed under the Mahatma Gandhi National Rural Employment Guarantee Act, 2005 —
- (a) 100 Days
  - (b) 150 Days
  - (c) 200 Days
  - (d) 240 Days.
- (vii) Which of the following organisation measures national income in India —
- (a) UNO
  - (b) NSSO
  - (c) CSO
  - (d) SEBI.
- (viii) Which of the following ranks first in India's import list —
- (a) Capital goods
  - (b) Petroleum and oil
  - (c) Fertilizer
  - (d) Iron and steel.
- (ix) 'Globalisation' is likely to increase with —
- (a) More protectionism
  - (b) An increase in tariff
  - (c) More trade within country
  - (d) Greater trade flows between countries.

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- (x) Indian rupee is fully convertible on —
- Capital account
  - Current account
  - Both capital and current accounts
  - None of the above.

(1 mark each)

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

- 'Positive economics' and 'normative economics'.
- 'Economies of scale' and 'diseconomies of scale'.
- 'Revenue budget' and 'capital budget'.
- 'Commercial bank' and 'central bank'.
- 'Firm' and 'industry'.

(3 marks each)

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

- The study of economics at the aggregate level is termed as \_\_\_\_\_.
- If a consumer is spending a large proportion of his budget on a good, price elasticity of demand of that good would be \_\_\_\_\_.
- The law of variable proportions explains the behaviour of a \_\_\_\_\_.
- \_\_\_\_\_ came into existence to overcome the difficulties of barter system.
- The phenomenon of industry and business units running in persistent loss and erosion of net worth is known as \_\_\_\_\_.
- In India, dependency ratio is high because of a high proportion of persons below the age of \_\_\_\_\_ years.

(1 mark each)

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

- "Capitalist system is self regulatory." Explain.
- How does the quantity of output change when some factors of production are kept constant and others are varied ? Explain.
- Discuss the usefulness of national income estimates in policy formulation.
- Define 'bank rate'. How does it help in controlling credit ?

(5 marks each)

4. Attempt *any three* of the following :

- (i) Explain price elasticity of demand. Discuss the factors that determine the price elasticity of demand.
- (ii) How are the price and output determined in a market where there is only one seller ?
- (iii) “Changing composition of India's external trade reflects the changing nature of its economy.” Comment.
- (iv) “Globalisation leads to a more inequitable distribution of income and loss of national sovereignty.” Comment.

(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) Individual unrelated numbers or attributes are not statistics.
- (ii) Census is a very costly method of investigation.
- (iii) Value of median depends on magnitude of items.
- (iv) A low Gini co-efficient indicates less equal distribution of income.
- (v) Index numbers are specialised averages.

(2 marks each)

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

- (i) 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.
- (ii) The optimum size of a sample depends on —
  - (a) Reliability
  - (b) Accuracy
  - (c) Freedom from bias
  - (d) All of the above.

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- (iii) If we draw a perpendicular line on X-axis from the point of intersection of both 'less than' and 'more than' cumulative frequency curves, we get the value of —
- (a) Mode
  - (b) Median
  - (c) Arithmetic mean
  - (d) Third quartile.
- (iv) The sum of deviations of individual observations is zero when deviation is taken from —
- (a) Mode
  - (b) Median
  - (c) Arithmetic mean
  - (d) Geometric mean.
- (v) Inter-quartile range includes —
- (a) First 50% of the items
  - (b) Central 50% of the items
  - (c) Last 50% of the items
  - (d) None of the above.
- (vi) Which of the following measures of dispersion is independent of frequencies of distribution —
- (a) Range
  - (b) Quartile deviation
  - (c) Mean deviation
  - (d) Standard deviation.
- (vii) Probable error of correlation coefficient ' $r$ ' is equal to —
- (a)  $0.6745 \frac{1 - r^2}{\sqrt{N}}$
  - (b)  $0.6745 \sqrt{\frac{1 - r^2}{N}}$
  - (c)  $0.6745 \frac{1 + r^2}{\sqrt{N}}$
  - (d)  $0.6745 \frac{1 - r^2}{N}$

- (viii) Fisher's index number satisfies —
- Time reversal test only
  - Factor reversal test only
  - Both time and factor reversal tests
  - None of the above.
- (ix) The trend is linear if —
- Growth rate is constant
  - Growth rate is positive
  - Growth rate is negative
  - None of the above.
- (x) In a set of individual observations, geometric mean is equal to —
- $\frac{\sum \log X}{N}$
  - Antilog  $\left[ \frac{\log X}{N} \right]$
  - Antilog  $\left[ \frac{\sum \log X}{N} \right]$
  - $\frac{\log \sum X}{N}$

(1 mark each)

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

- 'Exclusive classification' and 'inclusive classification'.
- 'Component bar diagram' and 'pie diagram'.
- 'Mean deviation' and 'standard deviation'.
- 'Seasonal variation' and 'cyclical variation'.
- '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) :

- \_\_\_\_\_ is indispensable for the functioning of a State.
- The \_\_\_\_\_ data should be used after careful scrutiny.
- \_\_\_\_\_ is the step preceding tabulation.

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- (iv) Square of the \_\_\_\_\_ is known as variance of the distribution.
- (v) The value of correlation coefficient is \_\_\_\_\_ of origin and units of measurement.
- (vi) \_\_\_\_\_ is the tendency of data to increase or decrease over a long period of time.

(1 mark each)

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

- (i) “Statistics can prove anything.” Comment.
- (ii) What is ‘questionnaire’ ? What are the merits and demerits of a questionnaire ?
- (iii) What is ‘business forecasting’ ? Explain the trend projection method of forecasting.
- (iv) Following figures relate to the imported quantity and value of cotton in a country. Present the same on graph paper :

Year	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13
Quantity ('000 Tons)	215	213	138	116	123	118
Value (₹ Crore)	101	137	77	53	58	57

(5 marks each)

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

- (i) Determine the median value from the following data :

Marks obtained	No. of candidates
1 – 5	7
6–10	10
11–15	16
16–20	32
21–25	24
26–30	18
31–35	10
36–40	5
41–45	1

(5 marks)

- (ii) Find Karl Pearson's coefficient of correlation between X and Y taking deviations from their actual means 49 and 45 respectively :

X	77	54	27	?	14	35	90	25	56	60
Y	35	58	60	40	50	40	35	?	34	42

(5 marks)

- (iii) In a certain factory, a unit of work is completed by A in 4 minutes, by B in 5 minutes, by C in 6 minutes, by D in 10 minutes and by E in 12 minutes. Determine their average rate of working.

(5 marks)

- (iv) From the following table prepare an ideal index number :

Items	Base Year		Current Year	
	Price (₹)	Total Expenditure (₹)	Qty. Purchased (Nos.)	Total Expenditure (₹)
A	5	250	60	600
B	2	200	80	160
C	4	240	50	300
D	4	280	60	600

(5 marks)