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) Price elasticity of demand of a commodity is affected by the number of its substitutes.

(ii) The law of variable proportions is a long-term phenomenon.

(iii) Price discrimination is possible in monopoly only.

(iv) Primary sector in India no longer provides employment to majority of the work force.

(v) Monetary policy is formulated and implemented by Government of India.

(2 marks each)

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

(i) Which of the following is not one of the basic micro economics questions —

(a) What to produce
(b) For whom to produce for
(c) How to make use of labour or machinery
(d) How to maximise social welfare.

(ii) Utility means —

(a) Power to satisfy a want
(b) Quality of a service
(c) Willingness of a person to purchase
(d) Desire to have a good.
(iii) In which market an individual firm cannot influence price —
   (a) Perfect competition
   (b) Monopoly
   (c) Monopolistic competition
   (d) Oligopoly.

(iv) The biggest source of domestic savings in India has been —
   (a) Household savings
   (b) Public sector savings
   (c) Government revenue surpluses
   (d) Corporate savings.

(v) Fiscal policy is connected with —
   (a) Issue of currency
   (b) Exports and imports
   (c) Public revenue and expenditure
   (d) All of the above.

(vi) Bank rate means —
   (a) Interest rate payable by RBI on deposits of commercial banks
   (b) Interest rate charged by banks on loans and advances
   (c) Interest rate payable on bonds
   (d) The rate at which RBI discounts the bills of exchange.

(vii) If marginal utility derived from the consumption of a commodity by the consumer is zero, the total utility will be —
   (a) Minimum
   (b) Maximum
   (c) Zero
   (d) None of the above.

(viii) Which one of the following cost curves always slopes downwards —
   (a) Total fixed cost curve
   (b) Short-run average cost curve
   (c) Average variable cost curve
   (d) Average fixed cost curve.
(ix) Which theory is generally studied in micro economics —
(a) Price theory
(b) Income theory
(c) Employment theory
(d) None of the above.

(x) The headquarters of World Trade Organisation (WTO) is located at —
(a) New York
(b) Doha
(c) New Delhi
(d) Geneva.

(1 mark each)

2. (a) Distinguish between any three of the following:
(i) ‘Change in supply’ and ‘change in quantity supplied’ with the help of diagram(s).
(ii) ‘Internal economies of scale’ and ‘external economies of scale’.
(iii) ‘Balance of trade’ and ‘balance of payments’.
(iv) ‘Monopoly’ and ‘monopolistic competition’.

(3 marks each)

(b) Re-write the following sentences after filling-in the blank spaces with appropriate word(s)/figure(s):
(i) Production function is defined as the __________ relationship between input and output.
(ii) A firm is a __________ unit engaged in the task of producing or selling of some specified goods or services.
(iii) The concept of socialist economy has its origin in the drawbacks of __________.
(iv) India has __________ reserves of high quality iron ore.
(v) The National Rural Employment Guarantee Scheme was implemented from February, 2006 in __________ identified districts of the country.
(vi) __________ is the apex institution of Indian financial system.

(1 mark each)
3. Attempt any three of the following :
   (i) “Economics is not an exact science.” Comment.
   (ii) “Rapid industrialisation is necessary for fast economic development.” Comment.
   (iii) “Urbanisation is a resource costly phenomenon for an economy like ours.” Comment.
   (iv) What is ‘World Trade Organisation’ (WTO) ? Discuss its objectives.

   (5 marks each)

4. Attempt any three of the following :
   (i) Examine the factors which influence the quality of the labour force.
   (ii) Explain the basic concepts of costs which a firm considers in short-run.
   (iii) Explain the different components of money supply in India.
   (iv) What are the major components of receipts and expenditure that are included in the preparation of budget of Government of India ?

   (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) A single fact, even though numerically expressed cannot be called statistics.
   (ii) It is safe to take the published statistics at their face value without knowing their meaning and limitations.
   (iii) Median is a positional average.
   (iv) A relative measure of dispersion cannot be used to compare dispersions of two or more distributions.
   (v) The purpose of forecasting is to provide future data with perfect precision.

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

(i) The most acceptable and comprehensive definition of statistics in the sense of numerical data is given by —
   (a) Bowley
   (b) Fisher
   (c) Horace Secrist
   (d) A.K. Sen.

(ii) Which of the following statistical techniques is useful for economic planning —
   (a) Time series analysis
   (b) Index numbers
   (c) Forecasting techniques
   (d) All of the above.

(iii) Which of the following statements is not true about census investigation —
   (a) It is comprehensive
   (b) More time is required
   (c) Accuracy is very low
   (d) Cost is very high.

(iv) Which of the following is a mathematical average —
   (a) Median
   (b) Mode
   (c) Quartiles
   (d) Harmonic mean.

(v) Which of the following measures is suitable to study inequality of income and wealth —
   (a) Inter-quartile range
   (b) Mean deviation
   (c) Range
   (d) Lorenz curve.

(vi) The value of correlation coefficient ‘r’ is independent of —
   (a) Point of origin
   (b) Unit of measurement
   (c) Both (a) and (b)
   (d) Neither (a) nor (b).
(vii) Secular trend is the tendency of data to —
(a) Increase over a long period of time
(b) Decrease over a long period of time
(c) Stagnate over a long period of time
(d) Either (a) or (b) or (c).

(viii) Fisher’s ideal index number satisfies —
(a) Unit test
(b) Time reversal test
(c) Factor reversal test
(d) All of the above.

(ix) Tabulation of data is done —
(a) Before classification
(b) After classification
(c) No restrictions
(d) None of the above.

(x) Which of the following measures of central tendency can be used for further algebraic treatment —
(a) Geometric mean
(b) Harmonic mean
(c) Arithmetic mean
(d) All of the above.

(1 mark each)

6. (a) Distinguish between any three of the following:
   (i) ‘Continuous variable’ and ‘discrete variable’.
   (ii) ‘Exclusive series’ and ‘inclusive series’.
   (iii) ‘Frequency polygon’ and ‘frequency curve’.
   (iv) ‘Coefficient of variation’ and ‘variance’.

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

(i) Arrangement of data on the basis of certain characteristics is called __________ of data.

(ii) In a statistical enquiry, __________ is a person who answers to the set of questions included in the questionnaire.

(iii) In random sampling, each and every item of universe has __________ probability of being selected.

(iv) __________ measures the degree and intensity of relationship between two variables.

(v) Data which have been collected by somebody else are called __________.

(vi) A diagram having two dimensions is known as __________.

(1 mark each)

7. Attempt any three of the following:

(i) Briefly explain the various stages of statistical enquiry.  

(5 marks)

(ii) Differentiate between ‘census investigation’ and ‘sample investigation’. State the conditions in which census investigation is suitable.  

(5 marks)

(iii) Define ‘average’. What are the characteristics of a good average?  

(5 marks)

(iv) Present the following data in the form of histogram on a graph sheet:

<table>
<thead>
<tr>
<th>Weekly Wages (₹)</th>
<th>No. of Workers</th>
</tr>
</thead>
<tbody>
<tr>
<td>10-15</td>
<td>7</td>
</tr>
<tr>
<td>15-20</td>
<td>10</td>
</tr>
<tr>
<td>20-25</td>
<td>27</td>
</tr>
<tr>
<td>25-30</td>
<td>15</td>
</tr>
<tr>
<td>30-40</td>
<td>12</td>
</tr>
<tr>
<td>40-60</td>
<td>12</td>
</tr>
<tr>
<td>60-80</td>
<td>8</td>
</tr>
</tbody>
</table>

(5 marks)
8. (a) Calculate the mode from the following distribution:

<table>
<thead>
<tr>
<th>Wages more than (₹)</th>
<th>80</th>
<th>90</th>
<th>100</th>
<th>110</th>
<th>120</th>
<th>130</th>
<th>140</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of Workers</td>
<td>160</td>
<td>151</td>
<td>134</td>
<td>104</td>
<td>60</td>
<td>29</td>
<td>10</td>
</tr>
</tbody>
</table>

(b) Calculate coefficient of standard deviation from the following data:

<table>
<thead>
<tr>
<th>Marks Obtained</th>
<th>0-9</th>
<th>10-19</th>
<th>20-29</th>
<th>30-39</th>
<th>40-49</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of Students</td>
<td>12</td>
<td>15</td>
<td>40</td>
<td>22</td>
<td>11</td>
</tr>
</tbody>
</table>

(c) From the information given below, find out the coefficient of correlation:

- No. of pairs of observation: 10
- Assumed mean for X series: 82
- Assumed mean for Y series: 68
- Sum of deviations of X from assumed mean: \((-)\) 170
- Sum of deviations of Y from assumed mean: \((-)\) 20
- Sum of the multiplication of deviations of X and Y: 3,044
- Total of square of deviations of X: 8,288
- Total of square of deviations of Y: 2,264