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(July)

STATISTICS

(Elective/Honours)

(Applied Statistics)

[STEH-4 (TH)]

Marks : 56

Time : 3 hours

*The figures in the margin indicate full marks
for the questions*

Answer **five** questions, selecting **one** from each Unit

UNIT—I

1. (a) Write a brief note on different sources of demographic data. 4
- (b) What is 'life table'? What purpose does it serve? Define all the notations and terminology related to 'life table'. 2+2+4=8
2. What do you mean by fertility? Describe briefly different measures of fertility and write their merits and demerits. 12

UNIT—II

3. (a) What do you mean by statistical quality control? Write down the advantages and limitations of SQC. 4
- (b) Describe control chart and control limits. 4
- (c) Write down the difference between \bar{X} -chart and R -chart. 3
4. Write notes on the following :
1½+1½+2+2+2+2=11
 - (a) Producer's risk
 - (b) Consumer's risk
 - (c) ASN function
 - (d) OC function
 - (e) Single-sampling plan
 - (f) Double-sampling plan

UNIT—III

5. What is an index number? Describe briefly the problems that are involved in the construction of an index number of prices. Write the uses of index number. 11
6. Describe different methods of construction of index numbers. Write the limitations of index number. 11

(3)

UNIT—IV

7. (a) What do you mean by a time series?
Mention the models of time series.
Describe the different components of
time series. 1+1+4=6
- (b) Describe the following : 2½×2=5
- (i) Estimation of trend by the moving
average method
- (ii) Estimation of seasonal variation by
the link relative method
8. (a) Write in brief : 4
- (i) Static laws of demand and supply
- (ii) Price elasticity of demand
- (b) The demand curve and supply curve of
a commodity are given by
 $d = 19 - 3P - P^2$ and $S = 5P - 1$. Find the
equilibrium price and quantity
exchanged. 1
- (c) Write notes on the following : 1½×4=6
- (i) Income distribution
- (ii) Pareto's law
- (iii) Lorenz curve
- (iv) Gini's coefficient

(4)

UNIT—V

9. What is official statistics? What purpose does
it serve? Write a note on present official
statistical system of India. 11
10. Write notes on the following : 5½×2=11
- (a) Agricultural statistics of India
- (b) Financial and banking statistics

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