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(20623)
M.Sc. - IV Sem.

Printed Pages : 3
Roll No.

14157

M.Sc. Examination, June-2023

STATISTICS

Economics Statistics and Demography
(H-4033)

Time : 3 hours] [Maximum marks : 50

Note: Attempt all the sections as per instructions.

Section-A

(Very Short Answer Questions)

Note: This section contains five questions, all questions will be compulsory. Each question carries 2 marks. $5 \times 2 = 10$

1. Explain Time-Series? What are its various components? 2
2. Define vital statistics with examples. 2
3. Write various measures of fertility and explain any one of them. 2
4. Explain the Force of Mortality. 2
5. Explain how the principle of least squares is used to estimate trend in a time series. 2

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Section-B

(Short Answer Questions)

Note: This section contains three questions, attempt any two questions. Each question carries 5 marks, $2 \times 5 = 10$

6. Discuss with assumptions, the component of a complete life table. 5
7. Explain variate difference method with assumptions. 5
8. What is an Engel's curve and how will you determine it on the basis of family budget data? Write some situations in budget data? Write some situations where Engel's law will be applicable. 5

Section-C

(Detailed Answer Questions)

Note: This section contains four questions, attempt any three questions. Each question carries 10 marks. Answer is required in detail. $3 \times 10 = 30$

9. (a) Explain 'Ratio to trend' method for determining seasonal fluctuations of a given time series. 5
- (b) Explain the method of fitting trend by Gompertz curve. 5

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- ✓ 10. Distinguish between complete and Abridge life table.
Discuss the construction of an abridge life table.
Also explain the importance of a life table. 10
- ✓ 11. Define autoregression and autocorrelation. Obtain
correlogram for harmonic series and discuss its
nature. 10
12. (a) Explain price and income elasticities of
demand. Present a method of estimating price
elasticity of demand from time series data. 5
- (b) State Pareto's law of income distribution and
discuss its limitations. 5