

## BSc Sem.-4 Examination

CC-205

Statistics

May-2025

Time : 2-30 Hours]

[Max. Marks : 70

- Q.1(A) What is index number? Give its uses and applications. 7  
 (B) Explain some of the important methods of constructing price index numbers 7  
 OR
- (A) Write a note on wholesale price index numbers. Discuss its economic importance 7  
 (B) Explain fixed based index numbers and chain based index numbers for the construction of index number. Also give its merits and demerits. 7
- Q.2(A) Explain time reversible tests and factor reversible tests. 7  
 (B) What is meant by (i) base shifting, (ii) splicing and (iii) deflating of index numbers? 7  
 OR
- (A) What is Fisher's index number? Why it is called ideal index number? 7  
 (B) What is cost of living index number? Give importance of family budget method for constructing cost of living index number? 7
- Q.3(A) Give the meaning of time series and state the importance of its study? 7  
 (B) Explain briefly the components of time series. 7  
 OR
- (A) What do you mean by seasonal variations? How will you differentiate it from cyclical variations? 7  
 (B) Explain the method of moving averages for obtaining trends. States its merits and demerit? 7
- Q.4(A) Write a detail note on vital statistics 7  
 (B) Give the meaning of crude and standardized death rates. How are they used in comparing the standards of health in two cities? 7  
 OR
- (A) Explain the terms: General fertility rate, Infant mortality rate and Crude birth rate. 7  
 (B) Explain method of collecting demographic statistics. 7
- Q.5 Answer the following questions. (Attempt any Seven) 14

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- 1 Purchasing power of money can be accessed through which index number?
  - 2 Which is the best suitable measure of central tendencies to construct index number?
  - 3 Which Index number satisfy time reversal test?
  - 4 State the formula of Dorbish- Bowle's Index Number.
  - 5 If the index number of Fisher's and Paasche' s are respectively 147.48 and 150 then the index number for Laspeyer's is \_\_\_\_\_.
  - 6 What does "a" represents in a trend line  $y=a+bx$ ?
  - 7 Define seasonal indices.
  - 8 "Method of moving averages can be used for forecasting the future". Is the following statement true? Justify your answers.
  - 9 "Secular trend represents a sudden change in the movement of time series" Is the following statement true? Justify your answers.
  - 10 Define TFR.
  - 11 Define SFR.
  - 12 If for a city CBR=30, total population =4,00,000 then total number of live births \_\_\_\_\_
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