

B.Sc. (NEP) Sem.-4 Examination**DSC-C-242****Statistics****April-2025****Time : 2-00 Hours]****[Max. Marks : 50**

- Q.1 (A)** Define fixed base and chain base index number. State the difference between them. (05)
- (B)** What is index number? Give its uses and limitations. (05)
- OR**
- (A)** What is wholesale price index number? Give its merits and demerits (05)
- (B)** What is Fisher's index number? Why is it ideal? (05)
- Q.2 (A)** What is meant by time series? Explain any seasonal component of time series. (05)
- (B)** Explain moving average method to determine trend. (05)
- OR**
- (A)** Explain additive and multiplicative models of time series. (05)
- (B)** Explain the use of time series method in data with example. (05)
- Q.3 (A)** Define vital statistics. Explain the uses of vital data and limitations. (05)
- (B)** Explain the methods of collecting of vital/demographic data. (05)
- OR**
- (A)** Write a note on crude birth rate and crude death rate. (05)
- (B)** Write a short note on life table. (05)
- Q.4 (A)** What is elasticity? Explain elasticity of demand by mathematical economics. (05)
- (B)** Discuss the concept of cost function. How is it related to revenue and profit maximization? (05)
- OR**
- (A)** Differentiate between price elasticity, income elasticity, and cross elasticity of demand. (05)
- (B)** Write a short note on average revenue and marginal revenue. (05)

Q.5 Answer the following Question. (Any ten).

(10)

1. Define: Marginal function of revenue.
2. Explain $GRR > NRR$.
3. Define: Circular test
4. What is difference between CDR and SDR.
5. Define: Value Index
6. What is base year?
7. Define: Infant Mortality
8. What is monopoly?
9. What is the slope of a perfectly elastic supply curve?
10. Mention one use of elasticity in economics.
11. Interpret $GRR = 0.7$.
12. What is I_x in a life table?
13. What is a trend?
14. Difference between seasonal and cyclical variation.
