V Semester B.C.A. Examination, January/February 2025
(NEP Scheme) (Freshers/Repeaters)
CA-C22T : DATA ANALYTICS

Time : 2½ Hours

Max. Marks : 60

Instruction : *Answer **all** the Sections.*

SECTION – A

I. Answer **any four** questions. **Each** question carries **two** marks. (4×2=8)

1) Define the term data analytics.

2) What is predictive analytics ?

3) Give the meaning of sample space in probability.

4) Define following events :
   i) Complementary
   ii) Mutually exclusive

5) What is Z-Test in hypothesis testing ?

6) What are filters in Power BI ?

SECTION – B

II. Answer **any four** questions. **Each** question carries **five** marks. (4×5=20)

7) Explain data analytics life cycle.

8) Define Hypothesis. Explain Type I and Type II errors in hypothesis testing.

9) State and prove Baye's Theorem.

10) Explain Chi-Square Test with an example.

11) A Fair coin is tossed twice such that

E : Event of having both head and tail,

F : Event of having at most one tail.

Find P(E), P(F) and P(E/F).

12) What are the advantages of Power BI ?

SECTION – C

III. Answer **any four** questions. **Each** question carries **eight** marks. **(4×8=32)**

13) Explain different types of data analytics with example.

14) Write short notes on : **(4+4)**
   a) Text Analytics
   b) Web Analytics.

15) a) What is an event ? Give example. **(4+4)**

   b) Explain the terms : Mean, variance and standard deviation.

16) Explain the architecture components of Power BI.

17) Write the syntax of the following functions : IF, COUNTIF, IFS, SUMIF and AVERAGE in Excel.

18) Write a case study on Netflix business scenarios.