NKT/KS/17/5100

Bachelor of Science (B.Sc.) Semester–II (C.B.S.) Examination
COMPUTER SCIENCE
(Object Oriented Programming Using C++)
Compulsory Paper–1

Time : Three Hours]   [Maximum Marks : 50

N.B. :— (1) **All** questions are compulsory and carry equal marks.

(2) Draw neat and labelled diagram wherever necessary.

EITHER

1. (A) What are classes and objects ? Describe syntax for declaring a class with suitable example. 5

   (B) Explain features of OOP's. 5

   OR

   (C) Write a program to implement class :

   (I) Data member

   (i) Name of cricket player

   (ii) Score in last two matches.

   (II) Member function

   (i) To assign initial values

   (ii) To compute total and average score

   (iii) To display data. 5

   (D) What is the purpose of static data member ? Explain with example. 5

EITHER

2. (A) Explain the need of copy constructor with example. 5

   (B) How is constructor invoked ? Explain usage of constructor giving suitable example. 5

   OR

   (C) Explain default constructor with example. 5

   (D) Explain unary operator overloading with example. 5

EITHER

3. (A) What is inheritance ? List its types. Explain single inheritance with example. 5

   (B) Write a program to illustrate the use of this pointer and explain. 5

OR

(C) What is an abstract class ? How will you define it ? Give an example.   5

(D) What is derived class ? Explain giving suitable example.   5

EITHER

4. (A) Draw and explain exception handling model.   5

(B) Write a short note on fault tolerant design techniques.   5

OR

(C) What are virtual functions ? State rules for virtual functions.   5

(D) How will you handle an uncaught exception ?   5

5. Attempt all :

(a) Explain private and public specifier.   2½

(b) Differentiate between constructors and destructors.   2½

(c) Explain multilevel inheritance.   2½

(d) What meaning does it convey :

    (i) Hit the exception

    (ii) Throw the exception ?   2½