

## B.Sc. II Semester Examination

Computer Science

Paper-I (Compulsory)

### OBJECT ORIENTED PROGRAMMING USING C++

Time : Three Hours]

[Maximum Marks : 50

- Note :** 1. All questions are compulsory and carry equal marks.  
2. Draw neat and labelled diagram wherever necessary.

1. a) What are features of object oriented programming? 5
- b) Differentiate between-
  - i) Defining member function inside the class.
  - ii) Defining member function outside the class. 5

Or

- c) Write a program to implement class 'Item' having following members.  
Data member :- item name and item cost.  
Member function:- get data ( ) and put data ( ). 5
- d) Explain static data member with suitable example. 5

2. a) What is constructor? Explain copy constructor giving suitable examples.
- b) List rules for operator overloading. List the operators that can not be overloaded.

Or

- c) Explain parameterised constructor with suitable example.
- d) Describe the importance of destructors. Write a program to illustrate use of destructor.

3. a) Define Inheritance. Explain multilevel inheritance with example.
- b) Explain 'New' and 'Delete' operator giving suitable example.

Or

- c) Explain "this pointer" giving suitable example.
- d) What do you mean by dynamic initialization of objects? How is dynamic initialization of objects achieved.

4. a) What is virtual function? What are the rules for creating virtual functions?
- b) What is Exception Handling? Explain handling uncaught exception.

- c) Why there is need for pure virtual function. Explain with suitable example. 5
- d) Explain Exception handling model write rules handling exception successfully. 5

5. Attempt any ten

- a) Write statement to create objects S1,S2,S3,S4 of class student.
- b) List any two access specifiers.
- c) What is an object?
- d) What is default argument?
- e) What is Binary operator overloading?
- f) Write two characteristics of constructor.
- g) State relationship between base class and derived class.
- h) Give diagrammatic representation of multiple inheritance.
- i) Give purpose of default constructor used in base class.
- j) In which section of a class, virtual function should be defined for getting its optimum benefit
- k) What happens when the exception is thrown outside a try block?
- l) What is fault tolerant?

1×10