DF-1725
M. Sc. I. T. & ICT (Programme) (Sem. III) Examination
March / April – 2016
Object Oriented Programming

Time : 3 Hours] [Total Marks : 70

Instruction :

1 Answer the following. (Any THREE) [18]
   1 Difference between POP and OOP.
   2 List and explain different varieties of functions you can define in C++.
   3 State and explain the most appropriate way to initialize and clean up objects
      in C++ with example.
   4 Write a note on input stream and output stream with example of overloading
      insertion and extraction operator for ‘matrix’ class.

2 Answer the following. (Any THREE) [18]
   1 Explain references in C++. Explain functions with arguments passed by
      value and reference with example.
   2 Write a note on different type conversions for user defined data types with
      appropriate example.
   3 Justify the use of friend function in operator overloading with an appropriate
      example.
   4 Explain use of runtime polymorphism with example.

3 Answer the following. (Any TWO) [18]
   1 Write a C++ program that takes input of 10 products objects and sort them
      according to their price.
   2 Develop ‘string’ class with given functionalities:
      - length
      - Reversing the string
      - Palindrome or not
      - Overload + operator
      - Overload * operator (“abc” * 3 will print o/p : abcabcabc )

DF-1725] 1 [Contd...
3 Develop required classes to implement data, time and datetime with functionality to display them in different formats. (At least two formats for each class)

4 Do as directed. (Any FOUR) [16]
1 Which exceptional conditions may arise in a program? How to handle them? Explain with example.
2 Write a C++ program to count number of sentences in a file.
3 Explain setw and endl with example.
4 Write a note on templates with example.
5 Differentiate virtual function and pure virtual function.