Z 3507

M.C.A. DEGREE EXAMINATION, NOVEMBER/DECEMBER 2006.

Second Semester

MC 1652 — OBJECT ORIENTED PROGRAMMING

(Regulation 2005)

Time : Three hours Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. What is an abstraction?

2. State why class is user defined data type?

3. State any two ways as how inline functions speed up processing.

4. Give the syntax of the reference operator.

5. What operators can't be overloaded?

6. What is constructor overloading?

7. Can virtual functions be static? Is it possible to declare virtual function as friend for another class?

8. What is the role of throw and catch statement?

9. List out the uses of abstract type.

10. What is application framework?

PART B — (5 × 16 = 80 marks)

11. (a) Compare the paradigms procedural programming and object oriented programming. (16)

Or

(b) Explain the following object oriented features.

(i) Data abstraction

(ii) Concrete types

(iii) Abstract types and state how these features support the key features of object oriented paradigm. (16)

12. (a) Write a program to declare friend function in two classes. Calculate the sum of integer data members of both the classes using friend sum ( ) function. (16)

Or

(b) (i) What are inline functions? Discuss its advantages and disadvantages.

(ii) What is reference? Give the syntax of the referencing operator.

13. (a) Write a program using function overloading to compute the sum of the matrix and the sum of the diagonal elements of the given 3×3 matrix. (16)

Or

(b) (i) What is the difference between operator overloading and function overloading? (8)

(ii) Describe the rules for operator overloading. (8)

14. (a) With suitable examples, explain the different forms of inheritance in detail. (16)

Or

(b) (i) What is a template? Discuss about function template. (8)

(ii) Discuss the functions of keyworks try, catch and throw. (8)

15. (a) (i) Compare the usage of concrete types and abstract type. (8)

(ii) Explain the roles of classes. (8)

Or

(b) (i) Discuss the uses of handles. (8)

(ii) Write short notes on actions and interface class. (8)