E 8227

M.C.A. DEGREE EXAMINATION, NOVEMBER/DECEMBER 2005.

Second Semester

CA 145 — OBJECT ORIENTED PROGRAMMING

Time : Three hours Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. What is object oriented programming?

2. What is object based language?

3. What is dynamic allocation?

4. What are pointers?

5. Define class.

6. What is the use of constructor?

7. Distinguish between overloading and overriding.

8. What is template?

9. What is class interface?

10. Mention the major tasks in object oriented design.

PART B — (5 × 16 = 80 marks)

11. (i) What is operator overloading? List out the rules to overload an unary operator.

(ii) Write a C++ program to add two matrices using overloaded + operator.

(6 + 10)

12. (a) (i) Explain the characteristics of OOPs.

(ii) List out the applications of OOPs. (8 + 8)

Or

(b) (i) Compare OOP and POP.

(ii) Write short notes on Object oriented design. (8 + 8)

13. (a) (i) Explain operators available in C++.

(ii) Explain about dynamic allocation in C++. (8 + 8)

Or

(b) (i) Distinguish between a class and an object.

(ii) Write a C++ program to display the given number in words for example. If the input is 123 and the output is ONE TWO THREE. (6 + 10)

14. (a) (i) Explain about virtual function with an example.

(ii) Distinguish between static binding and dynamic binding. (8 + 8)

Or

(b) (i) Write a C++ program to implement hybrid inheritance.

(ii) Write a C++ program to create a file with set of names and read the data from the file and arrange the names in alphabetical order and store in an another file. (8 + 8)

15. (a) With the help of suitable examples, explain as to how relationship among classes could be used in the efficient design of an object oriented system.

Or

(b) Briefly describe the design of an airline reservation system.
