3487

(Pages : 2) Reg. No.....

Name.....

B.TECH. DEGREE EXAMINATION, NOVEMBER 2010

Fourth Semester

Computer Science and Engineering

OBJECT ORIENTED PROGRAMMING (R)

(Prior to 2007 admissions)

[Supplementary]

me : Three Hours Maximum : 100 Marks

Part A

Answer all *questions.*

Each question carries 4 *marks.*

1. Distinguish between objects and classes.
2. What are the advantages of function prototypes ?
3. What are the different forms of inheritance ?
4. When do we make a class virtual ?
5. What is Polymorphism ? How is it achieved at run time ?
6. What is an abstract class ?
7. What are the uses of virtual destructors ?
8. Discuss the syntax of name spaces.
9. What are the characteristics of dynamic objects ?
10. What are the requirements of object oriented programming languages ?

(10 × 4 = 40 marks)

Part B

Each question carries 12 *marks.*

11. (a) What is a friend function ? What are its characteristics ? Discuss the merits and demerits of using friend functions.

Or

(b) What is meant by dynamic initialization of objects ? Why do we neat it and how is it achieved ?

Turn over

12. (a) Differentiate between multilevel and multiple inheritances. Explain with an example how they could be implemented.

Or

(b) Explain with an example the situation where we need to apply hybrid inheritance.

13. (a) How does function overloading implement polymorphism ? Explain with an example.

Or

(b) Illustrate the uses of abstract classes.

14. (a) Explain with an example how virtual base class could be implemented ?

Or

(b) Explain with an example how name spaces are defined, how they are nested and how the members in various name spaces are accessed.

15. (a) Illustrate with an example the method of allocation of dynamic objects.

Or

(b) Compare the object oriented features of C++ and Java.

(5 × 12 = 60 marks)