

B.E./B.Tech. DEGREE EXAMINATION, NOVEMBER/DECEMBER 2012.

Fifth Semester

Electrical and Electronics Engineering

CS 2311/CS 59/10133 EE 604 — OBJECT ORIENTED PROGRAMMING

(Common to Electronics and Instrumentation Engineering and Instrumentation and Control Engineering)

(Regulation 2008)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. Differentiate between an Object and a Class.
2. What is an abstract class in cpp in C++?
3. Why can't friend function be used to overload assignment operator?
4. What is a virtual class? Why is it used in C++?
5. What is a namespace?
6. What is the difference between throw and throws?
7. Why is java language called as 'robust'?
8. How does Java make an executable file?
9. What is the difference between an Interface and an Abstract class?
10. What is an inner class?

PART B — (5 × 16 = 80 marks)

11. (a) (i) Explain the characteristics of OOPS in detail. (8)
(ii) Write a C++ Program to Generate Fibonacci Using Copy Constructor. (8)

Or

- (b) (i) What is polymorphism? Explain different types of polymorphism. (8)
(ii) Write a C++ program to implement Dynamic memory allocation. (8)
12. (a) (i) Explain about implementation of runtime polymorphism in C++ with an example.
(ii) Explain the types of inheritance with example.

Or

- (b) (i) Explain the usage of template in C++. (8)
(ii) Explain how left shift and right shift operator are overloaded with an example. (8)

13. (a) Explain the file handling techniques in cpp. (16)

Or

- (b) Write a C++ program to create a class called STRING and implement the following operations. Display the results after every operation by overloading the operator <<.
- (i) STRING s1 = "Anna"
 - (ii) STRING s2 = "University"
 - (iii) STRING s3 = s1 + s2 (Use copy constructor).

14. (a) (i) Explain about various string operations in Java. (8)
(ii) Write a java program to find the maximum number of the given array. (8)

Or

- (b) (i) Explain about packages in Java. (8)
(ii) Write a program to convert an Integer array to String. (8)

15. (a) (i) Write a java program to implement multiple inheritance using interface. (8)
(ii) What is multithreading? Explain with an example. (8)

Or

- (b) (i) Write a java program to add 2 integers and raise exception when any other character except number (0 - 9) is given as input. (8)
(ii) Write short notes on various I/O streams in java. (8)