Reg. No. : ☐☐☐☐☐☐☐☐☐☐☐☐☐

## Question Paper Code : 80295

B.E./B.Tech. DEGREE EXAMINATION, NOVEMBER/DECEMBER 2016.

Fourth Semester

Electrical and Electronic Engineering

CS 6456 — OBJECT ORIENTED PROGRAMMING

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

(Regulations 2013)

Time : Three hours                                          Maximum : 100 marks
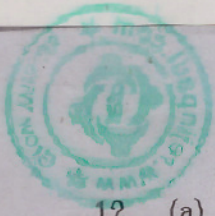
Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. What is meant by Object Oriented Programming?

2. Define abstraction.

3. State the uses of inline functions.

4. Define polymorphism.

5. What are the advantages of generic programming?

6. What is an exception?

7. "Java is platform independent language". Comment.

8. Distinguish between overloading and overriding.

9. What is the use of multithreading?

10. Distinguish between class and interface.

PART B — (5 × 16 = 80 marks)

11. (a) (i) List out differences between procedure oriented programming and object oriented programming.

    (ii) List out the applications of OOPs.                          (9 + 7)

Or

    (b) (i) Explain the characteristics of OOPs.

    (ii) Write a C++ program to list out the prime numbers between the given two limits.

12. (a) (i) Explain function overloading in C++ with an example. (8)

      (ii) What are constructors? Explain the concept of constructors and destructors with an example. (8)

Or

  (b) (i) Write a C++ program to overload + operator to add two complex numbers. (8)

      (ii) Explain the need for iterators using sufficient examples. (8)

13. (a) (i) Write a C++ program to generate user defined exception whenever user inputs odd numbers.

      (ii) Explain function templates with an example. (9 + 7)

Or

  (b) (i) Explain multiple inheritance in C++ with examples.

      (ii) List out the advantages of generic programming. (10 + 6)

14. (a) (i) Highlight the features of Java. (6)

      (ii) Explain the different looping constructs of Java with examples. (10)

Or

  (b) Explain the types of inheritance in Java with examples. (16)

15. (a) (i) How do you add an interface to a package? Explain with an example. (8)

      (ii) How exceptions are handled in Java? Explain the important methods used to handle exception. (8)

Or

  (b) (i) Explain multithreading with an example. (8)

      (ii) Explain any six methods available in the StringBuffer class. (8)

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