Reg. No. : | | | | | | | | | | | | |

Question Paper Code : 23375

B.E./B.Tech. DEGREE EXAMINATION, NOVEMBER/DECEMBER 2018.

Third Semester

Computer Science and Engineering

CS 2203 — OBJECT ORIENTED PROGRAMMING

(Common to Information Technology)

(Regulations 2008)

(Also common to PTCS 2203 – Object Oriented Programming for B.E. (Part-Time) Second Semester – CSE – Regulations 2009)

Time : Three hours | Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. What is a pointer? Give example.

2. Name the two types of polymorphism.

3. What is a default constructor? Give example.

4. Outline the need for a destructor.

5. What is a template?

6. Define an exception. Give example.

7. What is inheritance?

8. Define an abstract class.

9. Define namespaces.

10. What is a random access file?

PART B — (5 × 16 = 80 marks)

11. (a) What is object oriented programming? Explain the features of object oriented programming.

Or

(b) (i) What is function overloading? Explain with an example program. (10)

(ii) What is a friend function? Explain with an example. (6)

12. (a) (i) Write a C++ program to print the first 'n' prime numbers. (8)

(ii) Write a C++ program to find the greatest of 'n' numbers. (8)

Or

(b) (i) How would you declare function to be a constant in C++? What are the properties of such function? Explain with a demo program. (8)

(ii) Write a C++ program to initialize a 2 × 2 matrix of a private member function and print the data using another function which is not a member of the same class. (8)

13. (a) Write a C++ program to sort an array of 'n' numbers in ascending order.

Or

(b) Explain exception handling in C++ with an example. Use classes and member function.

14. (a) What are virtual functions? Explain with an example how late binding is achieved using virtual function.

Or

(b) Explain the various runtime casting methods in detail.

15. (a) What are manipulators? Explain in detail various manipulators used for I/O operations with example.

Or

(b) Discuss in detail about Standard Template Library.