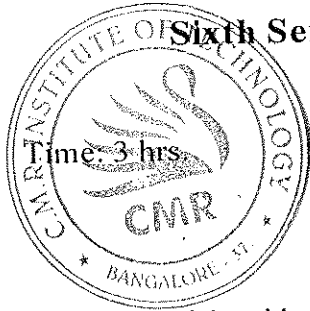


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10EC665



Sixth Semester B.E. Degree Examination, June/July 2016
Programming in C++

Max. Marks:100

Note: Answer FIVE full questions, selecting at least TWO questions from each part.

PART – A

- 1 a. Explain with example preprocessor directive available in C++. (08 Marks)
b. Explain dynamic memory allocation. What is the difference between static and dynamic memory allocation. (07 Marks)
c. Explain object-oriented design and object based design. Give example. (05 Marks)
- 2 a. What is a literal constant? Explain with example. (06 Marks)
b. What are the difference between a reference and a pointer? Give advantages of pointer. (08 Marks)
c. Distinguish between L-value and R-value. Give example for each. (06 Marks)
- 3 a. Discuss the following with example: i) Unary operators; ii) The Bitwise operator. (06 Marks)
b. Explain the switch statement with syntax. Write a program in C++ to find the roots of quadratic equation $ax^2 + bx + c = 0$ use switch. (10 Marks)
c. With flowchart, explain i) For ii) While. (04 Marks)
- 4 a. Explain call by value and call by reference parameter method with an example of each. (08 Marks)
b. What is an inline function? Explain with example. (04 Marks)
c. Write a program to find the maximum number in an array use max () function to implement. (08 Marks)

PART – B

- 5 a. What is an exception handling? Name the different types of exception and explain the exception handling mechanism. (10 Marks)
b. Explain the different throwing mechanism. Write a program to realize the expression and handle the exception $R = \frac{z}{y-x}$. (10 Marks)
- 6 a. With simple C++ program, using class, explain the term, object, private, public, constructor and destructor. (10 Marks)
b. Write a C++ program to define a class 'stack' including member function push () and pop () and appropriate data members to perform the stack operation. (10 Marks)
- 7 a. What is operator overloading? Write a C++ program to add two complex members by overloading the operator +. (10 Marks)
b. What are new and delete operator? Explain overloaded operator new and delete with example. (10 Marks)
- 8 a. What is inheritance? Discuss the different types of inheritance. (10 Marks)
b. Explain what is the relationship between class, base class, derived class and protected members, with the help of examples. (10 Marks)

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Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.
2. Any revealing of identification, appeal to evaluator and /or equations written eg, 42+8 = 50, will be treated as malpractice.