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10TE661

Sixth Semester B.E. Degree Examination, Dec.2017/Jan,2018
Programming in C++

Time: 3 hrs.

Max. Marks:100

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

PART - A

- 1 a. Explain the structure of C++ program. (04 Marks)
b. Differentiate between dynamic memory allocation and static memory allocation? Explain the keywords used for memory allocation and deallocation. (06 Marks)
c. What are preprocessor directives? What are its types? Explain each of them with example. (10 Marks)
- 2 a. What is the use of namespace keyword? Explain with an example. (05 Marks)
b. What is a reference type? Give an example. Distinguish between pointer type and reference type. (07 Marks)
c. Write a C++ program to compare two strings and display whether they are equal or not without using library function. (08 Marks)
- 3 a. Distinguish between pre-increment and post increment operator with an example. (04 Marks)
b. What is a conditional operator? Write a C++ program to find the greatest of two number using conditional operators. (04 Marks)
c. Write C++ program to reverse the number and determine whether the given number is palindrome or not. (06 Marks)
d. Write a C++ program to read n element into an array and print the number of even and odd elements present in the array. (06 Marks)
- 4 a. What do you mean argument passing? Distinguish between call by value and call by reference with example. (07 Marks)
b. What is recursion? Write C++ function using recursion which will find the factorial of a given number. (06 Marks)
c. Write C++ program using functions to find the sum of given series: $x + \frac{x^3}{3!} + \frac{x^5}{5!} + \frac{x^7}{7!} + \dots$ (07 Marks)

PART - B

- 5 a. What do you mean by exception handling? Write a C++ function to handle divide by zero exception. (10 Marks)
b. Explain the meaning and syntax of try, catch and throw blocks. (10 Marks)
- 6 a. Write a C++ program using class to find the area of any three geometrical objects. (10 Marks)
b. What are the access specifiers of class? Explain each of them with example. (06 Marks)
c. Distinguish between constructor and destructor. (04 Marks)
- 7 a. What are new and delete operators? Write a C++ program to add elements of an array using dynamic memory allocation. (10 Marks)
b. What is the use of operator overloading? Write a C++ program to add two complex numbers by overloading operator +. (10 Marks)
- 8 a. Write a C++ program to explain the concept of parent class and child class relationship. (10 Marks)
b. What is inheritance? Distinguish between public, private and protected inheritance. (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.