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10EC665

**Sixth Semester B.E. Degree Examination, Dec.2015/Jan.2016**  
**Programming in C++**

Time: 3 hrs.

Max. Marks:100

**Note: Answer any FIVE full questions, selecting atleast TWO questions from each part.**

**PART – A**

- 1 a. What are comments? Explain different types of comments in C++ with an example. (04 Marks)  
b. Distinguish between static memory allocation and dynamic memory allocation. (06 Marks)  
c. List the salient features of object oriented programming. (06 Marks)  
d. Explain the following : #elif, # if def. (04 Marks)
- 2 a. What are variables? Describe with an example. (06 Marks)  
b. Explain reference types and distinguish between reference types and pointer types. (08 Marks)  
c. Write a C++ program to read integer numbers from keyboard until user enters zero and sum the even numbers only and display the result. (06 Marks)
- 3 a. Write the O/P of followings :  
i) # define square(x) x \* x  
void main()  
{  
int i = 64/square (4) ;  
cout<<i;  
}  
ii) void main( )  
{  
int num, a = 15;  
num = - - - - a - - ;  
cout<<num<<a;  
}  
iii) void main( )  
{  
int i;  
for (i = 0 ; I < 5; i++)  
{  
int i = 10;  
printf(“%d”, i);  
i++;  
}} (06 Marks)  
b. Write a program to find the minimum of three numbers using conditional operator. (05 Marks)  
c. Describe : break, continue and goto statements. (09 Marks)
- 4 a. Describe call by value and call by reference with an example. (08 Marks)  
b. Describe inline function with an example. (06 Marks)  
c. Write a program to calculate sum of first n integers using recursion. (06 Marks)

**PART – B**

- 5 a. Describe exception handling in C++ with an example. (10 Marks)  
b. Describe :  
i) Rethrow  
ii) Catch all handler. (10 Marks)
- 6 a. Write a C++ program using class and explain public, private, object, class members. (10 Marks)  
b. Explain friend function and friend class, with example. (10 Marks)
- 7 a. Discuss the principle of operator overloading with an example. (10 Marks)  
b. Write a program to overload both prefix and postfix increment operator. (10 Marks)
- 8 a. Describe base class access control with an example. (08 Marks)  
b. With a program illustrate inheritance of multiple base classes. (12 Marks)

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