

KERALA AGRICULTURAL UNIVERSITY
B.Tech (Food. Engg) 2011 Admission
IIIrd Semester Final Examination- January/February -2013

Cat. No: Basc.2107

Title: Computer Programming (1+1)

Marks: 80

Time: 3 hours

I Define/Fill in the blanks.

(10x1=10)

1. What #include statement do you put at the top of a program that does uses cin or cout?
2. Inline functions are invoked at the time of _____
3. The default access level assigned to members of a class is _____
4. Which is the parameter that is added to every non-static member function when it is called?
5. Which allows you to create a derived class that inherits properties from more than one base class?
6. What does C++ append to the end of a string literal constant?
7. Elements in an array are identified by a unique _____
8. Differentiate between put() and get() functions.?
9. Consider the following statements
char *ptr;
ptr = "hello";
cout << *ptr;
What will be printed?
10. Exception handling is targeted at _____

II Write Short Notes on any Ten.

(10x3=30)

1. Why C++ is called object-oriented language?
2. What is constructor? With Example.
3. What is abstraction or data hiding.
4. Explain any 3 header files in C++?
5. What is polymorphism?
6. What is template class?
7. What are the differences between new and malloc?
8. What is the difference between overloaded functions and overridden functions?
9. What is a class? With example
10. Differentiate between recursion and iteration.
11. What are virtual functions.
12. . What will be the values of x, m and n after the execution of the following statements?
int x, m, n;
m = 10;
n = 15;
x = ++m + n++;

III Write short essays on any Six.

(6x5=30)

1. Explain term POLIMORPHISM and give an example using eg. SHAPE object: If I have a base class SHAPE, how would I define DRAW methods for two objects CIRCLE and SQUARE..
2. Define private, protected and public access control. With example
3. What are recursive functions? What are the advantages and disadvantages of Recursive algorithms?
4. Write a program in C++ which calculates the factorial of a given number.
5. What are tokens in C++?
6. What are friend functions? Explain their characteristics with a suitable example.
7. Write a program to overload the operator '+' for complex numbers.
8. What are the different storage classes in C++.

IV Write essay on any One.

(1x10=10)

1. Using the class above, define two subclasses Student and Professor. Student subclass displays the name and CGPA (grade points in float) and Professor subclass displays the name and number of publications (int). Write a main program using polymorphism to display the data of one student and one professor.
2. a) What are the basic concepts of object oriented programming?
b) Write a C++ program to print the grade of a student having 5 subjects.