



Sub: -OOP & DS

Assignment No-1

Sem.:- III Sem.

Last Date: - 08/08/2017

Bloom's Taxonomy Levels – 1. Remember 2. Understand 3. Apply 4. Analyze 5. Evaluate 6. Create

Question no 1, 2, 3 are based on CO304.1 - Describe the concept of procedural languages and implement the concept of object oriented programming using C++ programs.

Question no 4, 5, 6 are based on CO304.2- Implement the feature of OOPs using generic programming method.

Que. No	Question	BTL level
Q.1	What is Class? How it is different from Structure Definition? How data hiding is provided in class? Explain with syntax and example.	L1
Q.2	What is Friend Function? What are the merits and demerits of using friend function? Explain friend class. Explain inline function with example. Explain the use of scope resolution operator in C++ with suitable example.	L2
Q.3	Create a class employee that contains a name and age. Include a member function called <i>getdata()</i> to input the data from the user and another function called <i>putdata()</i> to display the data. Assume name has no embedded blanks. Write a <i>main()</i> program to test this class. It should create an array of type employee.	L3
Q.4	Explain virtual base class with example. Define terms: a) Early Binding b) Late Binding c) Data Binding	L1
Q.5	Explain the use of copy constructor with suitable example. Write a program with satisfy the concept of Copy Constructor.	L2
Q.6	A Book stall sells two types of item (i) Indian author's book. (ii) Foreign author's book. Create two classes for these items; each of them contains title and price. Provide appropriate get and set functions for each of them. Write a friend function that calculates the number of these items available in the shop.	L3

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Sub: -OOP & DS

Assignment No-II

Sem.:- III Sem.

Last Date: - 28.09.2017

Bloom's Taxonomy Levels – 1. Remember 2. Understand 3. Apply 4. Analyze 5. Evaluate 6. Create

Question no 1, 2, 3 are based on CO304.3 - Describe the concept of inheritance and implement its various methods using C++ Programs.

Question no 4, 5, 6 are based on CO304.4- Describe the use pointer in data structure using array and implement it using sorting and searching methods.

Que. No	Question	BTL level
Q.1	Explain new and delete operations with example. What are the advantages of new over malloc() function?	L1
Q.2	Explain types of inheritance with syntax and give an example. Explain the significance of public, protected and privately derived classes.	L1
Q.3	Create derived classes as engineering, science and medical from student class. Create their object and process them.	L3
Q.4	Explain runtime polymorphism using virtual function.	L1
Q.5	Write a program to enter the information of student and display it by using single inheritance.	L3
Q.6	Design three classes student, exam and result, the student class has data members name, roll no, sem, branch. Create class exam by inheriting the student class. The exam class has marks in three subjects and maximum marks. Derive the class result from class exam it has its own data members like percentage and grade. Write a C++ program to modal this relationship and what type of inheritance this modal belongs to?	L4

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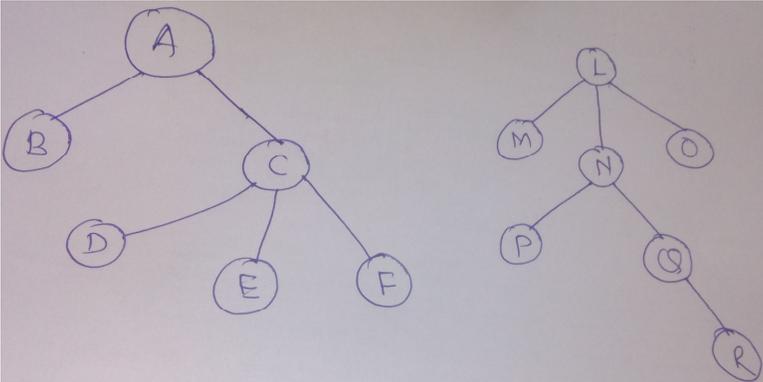


Last Date: - 05.10.2017

Bloom's Taxonomy Levels – 1. Remember 2. Understand 3. Apply 4. Analyze 5. Evaluate 6. Create

Question no 1, 2, 3 are based on CO304.5 - Analyse the concept of Stack, Linked List and Queue and implement its algorithm using C++ Program.

Question no 4, 5, 6 are based on CO304.6- Analyze the concept of TREE and its traversals using C++ Program.

Que. No	Question	BTL level
Q.1	Explain the working of Bubble sort with example. Write the program to sort the elements of an array using bubble sort method.	L2
Q.2	Sort the following elements using Quick sort: 10, 1, 9, 11, 46, 20, 15, 0, 72, 2. Give the complexity of Quick sort.	L3
Q.3	Describe about the Binary Search Method with example. Write the program to search the element of an array using binary search method, if the element to be search is entered through the keyboard.	L3
Q.4	What is STACK? Explain the function performed by the stack related operations like PUSH, POP, STACK TOP and EMPTY.	L1
Q.5	Explain Queue with example. What operations can be performed on a Queue?. Write a program to insert and delete following elements from Keyboard in Queue and display on the output screen: A, B, C, D, E.	L3
Q.6	Convert the following trees into binary tree: 	L3

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