EVALUATION CRITERIA OF OBJECT-ORIENTED PROGRAMMING (UTA018)

Component	Date	Weightage	Syllabus
MST	As per the date sheet	30	Mentioned below
EST	As per the date sheet	40	Mentioned below
Lab Evaluation 1	13 Sep-19 Sep in your respective labs	15 marks (8 marks program and 7 marks quiz/viva)	Mentioned below
Lab Evaluation 2	25-29 Nov in your respective labs	15 marks (8 marks program and 7 marks quiz/viva)	Mentioned below

Mid-Semester Test (MST) and Lab Evaluation 1 Syllabus

Syllabus:

Objects and Classes: Structure in C and C++, Class specification, Objects, Namespaces, Overview of pillars of OOPS (Data Encapsulation, Data Abstraction, Inheritance, Polymorphism), Inline functions, Passing objects as arguments, Returning object from a function, Array of objects, Static keyword with data member, member function and object, Friend function, and Friend classes, Pointer to objects, this pointer, Dynamic Initialization, Dynamic memory allocation.

Constructor and Destructor: Constructors and its types, Constructor Overloading, Constructors in array of objects, Constructors with default arguments, Dynamic Constructor, Destructor, 'const' keyword with data member, member function and object.

Inheritance: Introduction to Inheritance, Forms of Inheritance (Single, Multiple, Multilevel, Hierarchical and Hybrid) with various modes (Public, Private and Protected), Inheritance with Constructor and Destructor, Benefits and Limitations of Inheritance.

Lab Assignment 1-5.

End-Semester Test (EST): 40 Marks

Syllabus: Full Syllabus

Lab Evaluation 2 Syllabus:

Inheritance: Introduction to Inheritance, Forms of Inheritance (Single, Multiple, Multilevel, Hierarchical and Hybrid) with various modes (Public, Private and Protected), Inheritance with Constructor and Destructor, Benefits and Limitations of Inheritance.

Polymorphism: Classification of Polymorphism (Compile-time and Run-time), **Compile Time-**Function Overloading, Operator Overloading (Unary operator and Binary operator with member function and friend function), Data Conversion (Basic to user-defined, user-defined to basic, one user-defined to another user-defined). **Run-time-** Pointers to derived class object, Overriding member function, Virtual functions, pure virtual functions, Abstract class.

Exception Handling, Templates and Standard Template Library: Exception handling mechanism, Usage of template, Function templates, Overloading of Function templates, Class templates, Introduction to Standard Template Library and its components. Algorithms, Containers (Array, Vector, Stack, List and Queue) and Iterators.

(Coordinators)

Nidhi Kalra

Palika Chopra