**LECTURE PLAN**

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| **No. of Lectures Req./Avl. : (32)/(\_\_)**  **Semester Starting: 25/07/16 Semester Ending:\_\_/\_\_/\_\_** | | | | | |
| **Unit No./ Total lec. Req.** | **Topics** | **Lect. Req.** | **Lect. No.** | **Date of Delivery** | **Remark/ Actual lect. Taken** |
| **Unit I/3** | Review of structure in c, accessing members of structure using structure variable. | 1 | 1 |  |  |
| Pointer to structure, passing structure to function | 1 | 2 |  |  |
| Structures as user defined data types, Unit test-1 | 1 | 3 |  |  |
| **Unit II/10** | Concept of object, class, objects as variable of class data types. | 1 | 4 |  |  |
| Difference in structure and class in terms of access to members, Private and public basics in c++. Structures of c++ programs. cin cout functions. | 1 | 5 |  |  |
| Introduction to defining member function, keyword using. | 1 | 6 |  |  |
| Constructor and destructor functions | 1 | 7 |  |  |
| Dangers of returning reference to private data members. Constant objects and member function. | 1 | 8 |  |  |
| Composition of classes, friend function and classes. | 1 | 9 |  |  |
| Using this pointer, creating and destroying objects, new and delete operators. | 1 | 10 |  |  |
| Static class members, container classes and iterators, proxy classes. | 1 | 11 |  |  |
| Members of a class , data and function members, characteristics of OOPS. | 1 | 12 |  |  |
| Unit Test 2 | 1 | 13 |  |  |
| **Unit III/6** | Operator overloading fundamental, restrictions. | 1 | 14 |  |  |
| Operator function as class members v/s friend function. | 1 | 15 |  |  |
| Overloading stream functions. | 1 | 16 |  |  |
| Example of binary operators. | 1 | 17 |  |  |
| Example of unary operators. | 1 | 18 |  |  |
| Converting between types. Unit Test-3 | 1 | 19 |  |  |
| **Unit IV/8** | Base class and derived class in inheritance, types of inheritance. | 1 | 20 |  |  |
| Example of single level, multilevel, multiple, hierarchical, and hybrid inheritance. | 1 | 21 |  |  |
| Constructor and destructor in inheritance. | 1 | 22 |  |  |
| Public private and protected inheritance. | 1 | 23 |  |  |
| Relationship among objects in inheritance. | 1 | 24 |  |  |
| Virtual function and dynamic binding. | 1 | 25 |  |  |
| Virtual destructors | 1 | 26 |  |  |
| Unit Test-4 | 1 | 27 |  |  |
| **Unit V/5** | Virtual base classes | 1 | 28 |  |  |
| Pointers to classes and class members. | 1 | 29 |  |  |
| Templates | 1 | 30 |  |  |
| Exception Handling | 1 | 31 |  |  |
| UnitTest-5 | 1 | 32 |  |  |