KUC

Academic Task No. 3

Name of the faculty member:
Course Code: **CSE202** Course Title: **Object Oriented Programming**
Program: **B-Tech** Term:
Max. Marks: **30** Is Rubric Applicable: **NA**
Date of Allotment:**27th April 2021** Date of Submission**: 4th May 2021**

Important Guidelines:

1. All questions in this Academic Task are compulsory.

2. It is mandatory to attempt all questions of the assignment in your own handwriting on A4 size sheets/pages with a blue colour ink pen. Any other mode of attempt (typed or printed codes or table) except hand written/drawn will not be accepted/considered as valid submission(s) under any circumstances.

3. Every attempted sheet/page should carry clear details of student such as Name, Registration number, Roll number, Question number and Page number. The page numbers should be written clearly on the bottom of every attempted sheet in a prescribed format as: for page 1; Page 1 of 4, for page 2; Page 2 of 4, for page 3; Page 3 of 4 and for page 4; Page 4 of 4, in case your assignment/document is of 4 pages.

4. After attempting the answer(s), student needs to take photograph of each of these answer sheets/pages and needs to convert the **jpeg** format images into a **single pdf format document** (can be done with many free online available converters).

5. This PDF file should be uploaded only onto the UMS interface on or before the last date of the submission.

6. **Assignment Submission through LPU live or email wouldn't be accepted, so make sure to proofread it before uploading it to the platform.**

7. Refrain from indulging into plagiarism as copy cases will be marked zero.

Choose the correct option **10 marks**

1)ios::trunc is used for ?

a)If the file is opened for output operations and it already existed, no action is taken.
b)If the file is opened for output operations and it already existed, its previous content is deleted and replaced by the new one.
c)If the file is opened for output operations and it already existed, then a new copy is created.
d)None of above

2) Compile time polymorphism in C++ language are

a. Operator overloading
b. Function overloading
c. Function overriding
d. B Only
e. A & B

3)Choose the statement which is incorrect with respect to dynamic memory allocation.

a. Memory is allocated in a less structured area of memory, known as heap

b. Used for unpredictable memory requirements

c. Execution of the program is faster than that of static memory allocation

d. Allocated memory can be changed during the run time of the program based on the requirement of the program

4)When the inheritance is private, the private methods in base class are _____ in the derived class (in C++).

a. Inaccessible
b.. Accessible
c.. Protected
d. Public

5)Choose the correct option?

```
#include<iostream>
using namespace std;

class Base {};

class Derived: public Base {};

int main()
{
   Base *bp = new Derived;
   Derived *dp = new Base;
}
```

a. No Compiler Error
b.Compiler Error in line “Base *bp = new Derived;”
c. Compiler Error in line ” Derived *dp = new Base;”
d. Runtime Error

Short answer type question? 10 marks

- What is static memory allocation and dynamic memory allocation?
- What are c++ access modifiers explain with details

Long answer Type question. **10 marks**

A) Expplain the type of polymorphism with code

B) Create two classes named Mammals and MarineAnimals. Create another class named BlueWhale which inherits both the above classes. Now, create a function in each of these classes which prints "I am mammal", "I am a marine animal" and "I belong to both the categories: Mammals as well as Marine Animals" respectively. Now, create an object for each of the above class and try calling

function of Mammals by the object of Mammal
function of BlueWhale by the object of BlueWhale
function of each of its parent by the object of BlueWhale
function of MarineAnimal by the object of MarineAnimal