UPES
UNIVERSITY OF TOMORROW

UNIVERSITY OF PETROLEUM AND ENERGY STUDIES
End Semester Examination, May 2022

Course: Introduction to Game Programming   **Semester : IV**
Program: B.Tech CSE+GG   **Time : 03 hrs.**
Course Code: CSGG2007   **Max. Marks: 100**

SECTION A
(5Qx4M=20Marks)

S. No.		Marks	CO
Q 1	Explain the main difference between the utility of *animation* and *animator* window in Unity 3d?	4	CO4
Q 2	Describe any 2 functions/methods of MonoBehaviour class in Unity?	4	CO5
Q 3	Write the C# unity script for destroying all objects with the tag name *enemy*.	4	CO5
Q 4	Describe different types of inheritance models available in object oriented programming concepts.	4	CO2
Q 5	Discuss the pros and cons of Cloud Gaming or Gaming as a Service at current stage?	4	CO4

SECTION B
(4Qx10M= 40 Marks)

Q 6	Differentiate between abstraction and encapsulation? How using global variables does affect the concepts of abstraction and encapsulation?	10	CO2

Q 7	Consider the function protype add(int a) which return the sum of all the numbers which has been passed to the add function for example:
	
	#include<iostream>
	
	int main(){ add(1);add(5);
	cout<<add(6);//output 1+5+6=12
	}
	
	OR
	
	Write a python function custom_shuffle() to shuffle an entire list of numbers. The custom_shuffle(listA, shuffle_degree) will take two arguments listA is a list of numbers which will be shuffled and
		10	CO5

	shuffle_degree is a number which will essentially signify the change from the original listA.		
Q 8	Write the C# Script function to take two vectors A and B as inputs and find out the middle point vector M of A and B.	**10**	**CO4**
Q 9	Define a class Point in C++ inside this class write a function get_distant in this class to return the Point object which is having the longest distance from the origin out of all the created Point object. Hint:Use static members	**10**	**CO2**

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SECTION-C
(2Qx20M=40 Marks)

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Q 10	Consider you have been asked to develop a new game with your own ideas. Summarize your idea and describe them one by one with the aspects given below:
	  1. Story
	  2. Gameplay
	  3. Graphics and Animation
	  4. Theme
	Highlight the novelty.
	 OR Select an already existing popular game and describe it. Now create your own game idea on the basis of the selected game and write down the modifications to the original selected game and also mention effects of these modifications are going to affect the player's psyche.
		20	**CO1**

Q 11	Write the pseudocode or code in your preferred language for jumble solving game. In the jumble solving game user will provide the list of alphabet characters and your code should return a meaningful word which contains all the characters of the given word list. For example suppose given list is [n, g, l, a, e] so output could either be angle or angel. Assume that you have a file Dictionary.txt which contains all the meaningful words one per line.	**20**	**CO3**