UNIVERSITY OF PETROLEUM AND ENERGY STUDIES
End Semester Examination, December 2020

Programme Name: BTech. (CSE spl. GG)   **Semester : VII**
Course Name   : Advance Game Programming
Time   : 03 hrs
Course Code   : CSEG4004   **Max. Marks : 100**
Nos. of page(s)   : 2

SECTION A

1. Each Question will carry 5 Marks

S. No.		Marks	CO
Q 1	Name any four popular game genres?	5	CO2
Q2	Name any four popular game engines?	5	CO3
Q3	Write the two functions, which are created by default when creating a script in Unity?	5	CO4
Q4	Name any two language in which Unity scripts are written?	5	CO4
Q5	Write the distance between two vectors $3i + j + k$ and $3k$?	5	CO3
Q6	Write the best case, average case and worst case complexities for the Quick Sort algorithms?	5	CO1

SECTION B

1. Each question will carry 10 marks
2. Instruction: Write short / brief notes

Q7	Describe the importance of frame rate for developing a game?	10	CO4
Q8	Explain the role of game engineering in developing modern computer games?	10	CO5
Q9	Explain the difference between strong typed vs weak typed languages?	10	CO4
Q10	Write about the asymptotic notations along with their representation?	10	CO3
Q11	Mention few strategies for debugging a computer game? OR Describe the steps required for debugging a game in Eclipse IDE?	10	CO4

SECTION-C

1. Each Question carries 20 Marks.
2. Instruction: Write long answer.

| Q12 | Declare a structure for storing student's information. The structure should have fields for

    i)   Name, a string ranging in characters [3 10]
    ii)   Roll Number, an unsigned number with range [1 120]
    iii)   Branch, values only in {CSE, IT, ECE, Mechanical}
    iv)   Male or female, values only in {Male, Female}
In main function, define a variable of type student and assign any value for one student,
Define and use a character pointer to print all the values out of the defined student variable.

<div align="center">OR</div>
Write descriptive notes on the following interactive story mechanisms with suitable scenarios where they are applicable:

1.Cut Scene

2.Scripted Event

3.Artifact

4.NPC

5.Internal Monologue

6.Triggered Event | **20** | **CO5** |