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

Programme Name : B.Tech CS (GG) Semester : V
Course Name : Advanced Game Programming Algorithm Time : 03 hrs
Course Code : CSGG 4007 Max. Marks : 100
Nos. of page(s) : 1
Instructions: Attempt all questions.

SECTION A

S. No.		Marks	CO
Q 1	Rotate the point (1, 2) by 90 degrees counterclockwise the new Point will be ………	5	CO2
Q 2	….. function is called explicitly to execute the registered display function in OpenGL.	5	CO1
Q 3	…….. animation technique can be used for capturing facial expressions.	5	CO4
Q 4	World window does not decide the visible region of the world. (True/False).	5	CO1

Q 5	Which one of the following techniques can be used for faster texture filtering?
	    a. Nearest Neighbor
	    b. Linear interpolation
		5	CO3

Q 6	Tile maps are generally used in First person shooter to design different levels/maps. (True/False)	5	CO5

SECTION B

Q 7	Consider the function NearestPoint(A, p) which returns the nearest 2D point of p from the 2D point array A. For example, if p = (1,3) and A = [(5,16), (1,4), (7,21)] then the function will return (1, 4). Write down the algorithm for the function NearestPoint (A, p).	10	CO2
Q 8	Explain the concept of Procedural Animation with an example where it is suitable to apply it.	10	CO5
Q 9	Write down an example of how *physically based simulation* can be helpful in scientific observations.	10	CO3
Q 10	Why having proper save/load system of the game is essential for *immersion* of the game? Also mention various appropriate game genre and save system combinations.	10	CO4
Q 11	Describe with an example how having a good *clipping* strategy can enhance the game performance drastically.	10	CO2

SECTION-C

Q 12	What is an Interactive story? Describe various plot types of interactive story telling. **OR** Compare and contrast between Game debugging and Software debugging? Also describe various debugging strategies used in game/software development process.	20	CO4