


Name :			
Enrolment No. :			
UNIVERSITY OF PETROLEUM AND ENERGY STUDIES End Semester Examination, May 2023			
Program Name : BTech-CSE		Semester : VI	
Course Name : Introduction to Game Programming		Time : 3 hours	
Course Code : CSGG3002P		Max. Marks : 100	
No. of Page(s) : 2			
Instructions : Attempt all sections.			
SECTION-A			
S. No.	Questions	Marks	CO
Q.1	Explain 'this' pointer with an example.	4	CO1
Q.2	Explain with example python lists and dictionaries.	4	CO2
Q.3	Explain the utility of <i>continue</i> and <i>break</i> statement with example.	4	CO3
Q.4	Write a program in C++ or Python using while loop to print a times table (multiplication chart) for any user-given number from 1 to 30 until the value exceeds 150.	4	CO3
Q.5	Write a program in C++ or Python to print whether each number in a user-given list or array is divisible by three or not using a function.	4	CO4
SECTION-B			
Q.6	Compare and contrast one-dimensional and multi-dimensional arrays. Write the order in which the elements of following matrix will be stored if, a) Row-major format is used, and b) Column-major format is used.	10	CO1
	$\begin{bmatrix} 1 & 2 & 3 \\ 4 & 5 & 6 \\ 7 & 8 & 9 \end{bmatrix}$		
Q.7	Write a program in C++ or Python for an object with center at (50,50) that has two functions- (a) glide horizontally, (b) rotate some angle θ . Object oriented programming must be used.	10	CO2
Q.8	Write a short note on any 5 types of textures explaining how to achieve that texture and an example of where it is used.	10	CO3

Q.9	<p>Explain the purpose of using invisible circles or spheres in game programming along with examples, advantages and disadvantages.</p> <p style="text-align: center;">OR</p> <p>Describe the parameters used for rendering any 5 basic shapes in 2D dimension.</p>	10	CO4
SECTION-C			
Q.10	<p>Write a note on lighting in game programming. Explain how the lighting may be used for different purposes and how different types of lightings affect the game scenes.</p>	20	CO2
Q.11	<p>Describe any 3 game genres along with one example for each. The examples must be descriptive and show how they relate to the description of the corresponding genre.</p> <p style="text-align: center;">OR</p> <p>Explain how Role-playing game genre is similar or different from First person shooting. Design a detailed role playing game based on your favourite movie.</p>	20	CO4