School of Computing Science and Engineering

Bachelor of Technology in Computer Science and Engineering
Semester End Examination - Jun 2024

Duration : 180 Minutes
Max Marks : 100

Sem VI - R1UC615C - Unity for Game Programming

General Instructions
Answer to the specific question asked
Draw neat, labelled diagrams wherever necessary
Approved data hand books are allowed subject to verification by the Invigilator

1)	List three primitive data types in C# used for variable declarations.	K1(2)
2)	Explain the difference between prefix and postfix increment operators in C#.	K2(4)
3)	Explain the use of Input.GetAxis() methods in Unity.	K2(6)
4)	Implement a C# script to spawn a new GameObject when the player clicks the mouse in Unity.	K3(9)
5)	(a)Develop a simple game to rotate a GameObject continuously around its axis.(b) what is use of deltaTimer in Unity.	K3(9)
6)	(a)Evaluate the performance impact of using nested loops in C#. (b)Evaluate the benefits and drawbacks of using the "switch" statement versus multiple "if-else" statements in C#.	K5(10)
7)	(a)Explain how to create and destroy game object. (b)How does Unity handle user input, and what are some common input-related functions in C#? (c)Analyze the advantages and disadvantages of using rigidbody physics versus custom physics in Unity.	K4(12)
8)	Given a scenario, design and implement a set of C# classes that represent objects and their interactions, demonstrating encapsulation and inheritance.	K5(15)
9)	Create a game object program using interfaces and abstract classes which follow compact level game abstraction mechanism	K5(15)
10)	(a)Develop a C# application that simulates a basic inventory management system for a retail store. (b)Create a simple Tic toc game .	K6(18)