

School of Computing Science and Engineering

Bachelor of Technology in Computer Science and Engineering
Semester End Examination - Jul 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 types of control flow statements in C#. K1(2)
- 2) Describe how to move a GameObject in Unity using C#. K2(4)
- 3) Describe the purpose of the Rigidbody component in Unity. K2(6)
- 4) (a) Create a script that uses MonoBehaviour class in user-defined class. K3(9)
(b) Develop a C# program to calculate the average of an array of integers.
- 5) (a) Write a program that intentionally generates an exception, and explain how to handle it. (b) Implement a C# script to move a GameObject in response to user input using the arrow keys. K3(9)
- 6) Create a memory game where the player has to match pairs of cards using transform also MovePosition for player movement. K5(10)
- 7) There is a cricket ground in the form of a circle. Management would like to construct a pitch in the ground. Write a program to accept radius of the ground length and breadth of the pitch. Calculate cost to construct the pitch at the rate of 25Rs/Sqm. Also find the cost to construct the outfield at the rate of 50 Rs/Sqm. Analyze cost using customized exceptions in C#. K4(12)
- 8) (a) Explain the use of lambda expressions in C# and provide an example of how they can simplify code, such as in a LINQ query. K5(15)
(b) Evaluate the benefits and drawbacks of using LINQ in C#.
- 9) Design a simple Sudoku game using Unity with C#. K5(15)
- 10) Design a C# script to control the mouse movement in Unity. K6(18)