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School of Computing Science and Engineering

Bachelor of Technology in Computer Science and Engineering

Mid Term Examination - May 2024

Duration : 90 Minutes

Max Marks : 50

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) Explain the major categories of data types in C#? K2 (2)
- 2) List three difference between ref and out keywords? K1 (3)
- 3) Explain the difference between Start() and Awake() methods in Unity. K2 (4)
- 4) Explain the differences between while loop , for loop and for each loop in C# b. Write a program to accept book name , author name and MRP of book from the user. Calculate discount amount and selling price of book. Allow the discount amount 15% of book incase MRP>600 K2 (6)
- 5) Implement a simple collision detection between two objects in Unity using C#. K3 (6)
- 6) (a) Implement a method in C# to find the factorial of a given number using a object gaming recursive approach. (b)A farmer has a garden in the form of rectangle. Farmer would like to construct a path aroundThe garden with 2m wide. Write a program to accept length and breadth of the field. Calculate cost to construct the path at the rate of 20 rupees/Sqm. K3 (9)
- 7) (a)Create a game object which rotate itself using Simple Rotation in Unity. (b)Design and Implement a smooth camera function in unity game program. K4 (8)
- 8) Integrate machine learning models into your Unity project "floopy birds" using global game objecst- also Analyze the difference between value types agent and reference types agents . K4 (12)

OR

Build a sound system that responds dynamically to in-game events, such as changes in the environment, player actions, or background music transitioning based on the game state K4 (12)