GALGOTIAS UNIVERSITY

ADMISSION NUMBER

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 V - E2UT501B / CSGT3050- Unity in C#

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)	Identify the main components of a GameObject in Unity.	K1(2)
2)	Develop a script that calculates and displays the distance between two GameObjects alpha1 and beta1.	K2(4)
3)	(a) Write a program to Check if a given number is palindrome or not. (b) Explain the concept of inheritance in object-oriented programming (OOP) using C#. is c# support multiple inheritance or not?	K2(6)
4)	(a) Create a script that spawns enemies at random positions within a defined area. (b) Develop a C# program to calculate the average of an array of integers.	K3(9)
5)	Implement an interface in C# and discuss how access modifiers on interface members impact their visibility in implementing classes.	K3(9)
6)	Develop a Unity program with a trap that activates when the player character enters a trigger zone. Use the OnTriggerEnter method to detect the player and trigger the trap.	K5(10)
7)	Build a Unity program that spawns a new GameObject when the player clicks on the screen. Include a countdown timer to destroy the GameObject after a certain time.	K4(12)
8)	Create a game object program using interfaces and abstract classes which follow compact level game abstraction mechanism	K5(15)
9)	Evaluate the importance of exception handling within a constructor. How can exceptions be managed during object creation?	K5(15)
10)	(a) Develop a C# application that simulates a basic inventory management system for a retail store. (b) Create a Whack-a-Mole game where players need to quickly click on randomly appearing moles to score points.	K6(18)