

[Time:2.30 Hrs]

[Marks:75]

Please check whether you have got the right question paper.

- N.B:**
1. All question are compulsory.
 2. Figures to the right indicate full marks.

- Q.1 Attempt any Four of the following: 20**
- a. How are polygons used in 3D modelling and rendering?
 - b. Explain 2D/3D transformation.
 - c. Write a short note on Vector Multiplication.
 - d. Write a short note on clipping.
 - e. Explain Homogeneous coordinates.
 - f. Write a short note on rotation.
- Q.2 Attempt any Four of the following: 20**
- a. Explain Depth Buffering
 - b. Explain COM (Component Object Model) in DirectX 11.
 - c. Explain the swap chain and page flipping.
 - d. Write a short note on Direct X.
 - e. Explain in Brief Super sampling theory.
 - f. Explain Collision and Rigid Body.
- Q.3 Attempt any Four of the following: 20**
- a. Write a short note on Decisions and Flow control
 - b. Explain Classes in Brief.
 - c. Explain game Object with an Example.
 - d. What is a unity collider in gaming
 - e. Explain Sprites in brief.
 - f. Define Augmented Reality (AR), Virtual Reality (VR), and Mixed Reality (MR).
- Q.4 Attempt any Three of the following: 15**
- a. Write a short note on Texturing
 - b. What is a Function. Explain in brief
 - c. Explain Collision with an Example.
 - d. Explain the concept of six degrees of freedom (6DoF) in XR devices.
 - e. Explain Loop in brief.
 - f. Explain the Animator component and its role in character animation.

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