



Avinashilingam Institute for Home Science and Higher Education for Women
(Deemed to be University under Category 'A' by MHRD, Estd. u/s 3 of UGC Act 1956)
Re-accredited with A++ Grade by NAAC. Recognised by UGC Under Section 12B
Coimbatore - 641 043, Tamil Nadu, India

Continuous Internal Assessment Test I – August 2025

Semester V

23BITC09- Introduction to Augmented Reality and Virtual Reality

Class : III UG

Time : 2 Hrs

Major : Information Technology

Max Marks : 60

Course Outcomes:

1. Describes how AR systems work and lists the applications of AR.
2. Understand and analyse the hardware requirements of AR.
3. Use computer vision concepts for AR and describe AR techniques.
4. Describe how VR systems work and list the applications of VR.
5. Explain the concepts of motion and tracking in VR systems.

Part -A

Choose the Correct Answer

6 X 1 = 6

1. AR is mostly dependent on which of the following components? CO1 K1
A. Audio signals B. Physical movement C. Computer vision and tracking D. Keyboard input
2. What is the main difference between AR and VR? CO1 K2
A. AR is fully immersive, VR is not B. VR replaces the real world, AR enhances it
C. AR is used only in gaming, VR is used in industry D. VR uses GPS, AR doesn't
3. Optical see-through display allows users to _____. CO2 K4
A. See only virtual objects B. See only physical world
C. See virtual content overlaid on the physical world D. Interact without using hands
4. Sensor fusion refers to _____. CO2 K5
A. Using a single sensor for all operations B. Fusing GPS with Wi-Fi signals
C. Combining data from multiple sensors for accuracy D. A process of image blending
5. The first head-mounted display (HMD) system was developed by CO3 K3
A. Steve Jobs B. Mark Zuckerberg C. Ivan Sutherland D. Alan Turing
6. Which company launched the first commercially successful VR headset for gaming in the 2010s? CO3 K2
A. Sony B. Oculus C. Google D. Microsoft

Part – B

Answer the following

Answer should not exceed 400 words

3 X 6 = 18

7. a. Define Augmented Reality and explain its key characteristics (Or) CO1 K2
7. b. Differentiate between Augmented Reality and Virtual Reality. CO1 K4
8. a. Explain the role of sensors in AR devices (Or) CO2 K3
8. b. Differentiate between optical see-through and video see-through devices. CO2 K4
9. a. Write a short note on GPS-based tracking. (Or) CO3 K3
9. b. What are the advantages of outdoor tracking in AR? CO3 K2

Part – C

Answer the following

Answer should not exceed 800 words

3 X 12 = 36

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| 10. a. Discuss the evolution and applications of Augmented Reality in real life. | (Or) | CO1 K4 |
| 10. b.Explain the types of AR displays with suitable examples. | | CO1 K3 |
| 11. a.Explain the working of Head-Mounted Displays (HMDs) in detail | (Or) | CO2 K3 |
| 11. b.Explain the hardware components required for an AR/VR system. | | CO2 K2 |
| 12. a.Describe in detail the various types of tracking techniques used in AR | (Or) | CO3 K3 |
| 12 b.Illustrate the tracking pipeline and its components in AR systems. | | CO3 K4 |
