

Dr. Babasaheb Ambedkar Open University
Term End Examination June – 2026

Course	: BCADES WEF Aug-2024	Date	: 10-06-2026
Subject Code	: BCADES-306 (Animation)	Time	: 11:30am to 01:45pm
Subject Name	: Virtual Reality	Duration	: 02.15 Hours
		Max. Marks	: 70

Section A

Answer the following (Attempt any three) (30)

1. Explain the concept of High Fidelity Immersive Virtual Reality and discuss the technologies used to achieve realistic immersive experiences.
2. Explain how Virtual Reality is used to simulate adaptive walking in unstructured terrains for multi-legged robots.
3. Explain the use of Virtual Environments in construction and maintenance planning with suitable examples.
4. Explain the process of post-disaster virtual revival using 3D computer graphics reconstruction of endangered heritage sites.
5. Discuss the concept of Fun Computing and explain how Virtual Reality contributes to interactive and engaging computing experiences.

Section B

Answer the following (Attempt any four) (20)

1. Discuss the advantages of VR-based research in food environment studies.
2. Write a note on the benefits of Building Information Modeling.
3. Write a note on the role of user feedback in VR-based product design.
4. Describe the advantages of Virtual Reality in rehabilitation systems.
5. Explain the role of simulators in the development and growth of Virtual Reality technology.
6. Explain the significance of simulation in space industry applications.

Section C

Part – A (Multiple Choice Questions) (10)

- Which technology allows users to view a virtual environment in all directions while a video is running?
A CAD Modeling
B Immersive Video
C BIM
D Motion Capture
- The concept of the Virtuality-Reality Continuum was proposed by:
A Ivan Sutherland
B Edwin Link
C Milgram and Kishino
D Pratt and Whitney
- Which device is considered the centerpiece of early Virtual Reality systems?
A HMD
B Touch Screen
C GPS Receiver
D Motion Platform

- 4 What does HMD stand for?
 - A High Motion Display
 - B Human Motion Detector
 - C High Multimedia Device
 - D Head Mounted Display
- 5 Which company developed the QuickTime VR (QTVR) technology?
 - A Microsoft
 - B Samsung
 - C Apple
 - D Sony
- 6 Which technology creates a 3D effect without requiring special glasses?
 - A Stereoscopy
 - B AutoStereoscopy
 - C Holography
 - D Motion Tracking
- 7 Which display technology acts as both a screen and a see-through glass?
 - A OLED TV
 - B Transparent Display
 - C CRT Display
 - D Plasma Display
- 8 Which patented technology projects images onto a screen made of micro-particles of water?
 - A StarCAVE
 - B Panoscope 360°
 - C HoloMachine
 - D Telemmersion
- 9 Which simulation technology is widely used for pilot training?
 - A Virtual Museum
 - B GIS System
 - C BIM Model
 - D Flight Simulator
- 10 BIM stands for:
 - A Building Information Modeling
 - B Business Integration Management
 - C Building Infrastructure Mapping
 - D Basic Information Modeling

Part – B (Do as Directed)

(10)

State whether the following statements are true or false

- 1 Virtual Reality is widely used in fields such as medicine, engineering, education, and entertainment.
- 2 Flat panel monitors provide a completely immersive Virtual Reality experience.
- 3 Nomadic Video technology can use everyday objects as projection surfaces.
- 4 The first VR-related Head Mounted Display system was developed by Ivan Sutherland in 1968.
- 5 Head Mounted Displays are generally recommended for children under 15 years of age.
- 6 Alioscopy technology uses lenticular lenses to provide multiple viewpoints of the same scene.
- 7 Transparent LCD panels require a full-size backlight unit to operate.
- 8 The HoloMachine allows users to pass their hands through the projected image.
- 9 Virtual Reality has applications in product design, construction planning, tourism, and heritage preservation.
- 10 The ultimate goal of Virtual Reality is to create experiences that are indistinguishable from real environments.
