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School of Engineering**B.TECH Mechanical Engineering****Mid Term Examination - Nov 2023****Duration : 90 Minutes****Max Marks : 50****Sem V - G3UB507T - Augmented Reality and Virtual Reality**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) Describe the concept of 3D boundary representation in geometric modeling. K2 (2)
- 2) Explain the concept of collision detection in the context of Virtual Reality. K1 (3)
- 3) How does human physiology and perception relate to VR experiences? K2 (4)
- 4) How is the virtual observer positioned in VR environments? K2 (6)
- 5) What are the principles of color theory relevant to computer graphics in VR? K3 (6)
- 6) Explain the concept of movement capture in VR. K3 (9)
- 7) How are geometrical transformations used to manipulate objects in VR? K4 (8)
- 8) What are the challenges associated with Augmented Reality (AR)? K4 (12)

OR

Explain the functionality and methods used in AR systems. K4 (12)