

K. J. Somaiya Institute of Technology, Sion, Mumbai-22
(Autonomous College Affiliated to University of Mumbai)

Nov – Dec 2024 B. Tech Program: Computer Engineering Scheme II		
Regular/Supplementary Examination: LY Semester: VII	Course Code: CEDLC7041	
Course Name: Augmented and Virtual Reality		
Date of Exam : 23/11/2024	Duration: 02 5 Hours	Max. Marks: 60

Instructions:

- (1) All questions are compulsory.
- (2) Draw neat diagrams wherever applicable.
- (3) Assume suitable data, if necessary.

		Max. Marks	CO	BT level
Q 1	Solve any two questions out of three: (05 marks each)	10		
a)	Compare Virtual and augmented reality?	5	CO1	U
b)	What is the significance of geometry in the virtual world?	5	CO2	U
c)	State a popular development tool for creating Virtual Reality (VR) content?	5	CO3	U
Q.2	Solve any two questions out of three: (05 marks each)	10		
a)	What are the key components of a Virtual Reality system?	5	CO4	U
b)	Define virtual reality with one example	5	CO1	U
c)	Discuss two applications of Virtual Reality (VR) in the field of healthcare.	5	CO6	U
Q.3	Solve any two questions out of three. (10 marks each)	20		
a)	Explain in detail Augmented Reality, advantages, disadvantages and applications?	10	CO5	U
b)	Discuss the applications of Virtual Reality in education and healthcare. Provide examples to illustrate your points.	10	CO4	U
c)	Discuss the applications of Augmented Reality in retail and education with examples.	10	CO5	U
Q.4	Solve any two questions out of three. (10 marks each)	20		
a)	Discuss the role of coordinate systems in the geometry of the virtual world. Include examples of different types of coordinate systems.	10	CO2	U
b)	Derive the relation for object falling in a gravitational field.	10	CO3	Ap
c)	Explain the applications of AR and VR in the gaming industry and discuss the development tools used for creating such applications.	10	CO6	U