EVEN SEMESTER EXAMINATION, 2022 – 23
IInd yr – B.Tech.– Computer Science & Engg.
Augmented & Virtual Reality

Duration: 3:00 hrs   **Max Marks: 100**

Note: - Attempt all questions. All Questions carry equal marks. In case of any ambiguity or missing data, the same may be assumed, and state the assumption made in the answer.

Q 1.	Answer any four parts of the following.	5x4=20
	a) What is reflection? Explain its models in detail.	
	b) What technology is used in augmented reality?	
	c) What is the purpose of augmented reality?	
	d) Discuss wireless displays in educational augmented reality applications.	
	e) Explain in detail about scene illumination.	
	f) What Are the Best Images and Subjects to Use for Virtual Reality?	
Q 2.	Answer any four parts of the following.	5x4=20
	a) What is projection? Explain in detail its type.	
	b) What is the difference between augmented reality and virtual reality?	
	c) Explain 2D and 3D with respect to Virtual Reality	
	d) Discuss the tasks involved in Selection and Manipulation techniques for 3D environments.	
	e) What are the key technologies of augmented reality? and explain 3 elements of virtual reality?	
	f) What is X3D? and Why you should use X3D?	
Q 3.	Answer any two parts of the following.	10x2= 20
	a) What are the environment models in virtual reality and explain all models?	
	b) What is VRML (Virtual Reality Modeling Language)?	
	c) Explain in details the classification of VR interaction techniques based on user intention?	
Q 4.	Answer any two parts of the following.	10x2= 20
	a) What is the application of VR in digital entertainment?	
	b) What is a VR system's responsiveness? Explain about the influence of system responsiveness on user performance.	
	c) Explain the various components of virtual reality systems with block diagram	
Q 5.	Answer any two parts of the following.	10x2= 20
	a) What is virtual reality? Explain the three I's of virtual reality?	
	b) Discuss in detail the use of Augmented Reality in gaming industry.	
	c) What is a virtual reality software? And Explain any four software used in VR.	

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