



Paper id: 251015

Printed Page: 1 of 1
Subject Code: BCS062

Roll No:

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

BTECH
(SEM VI) THEORY EXAMINATION 2024-25
AUGMENTED & VIRTUAL REALITY

TIME: 3 HRS

M.MARKS: 70

Note: Attempt all Sections. In case of any missing data; choose suitably.

SECTION A

1. Attempt all questions in brief.

02 x 7 = 14

Q no.	Question	CO	Level
a.	Explain the difference between the Augmented Reality and Virtual Reality.	1	K2
b.	What is the role of immersion in Virtual Reality?	1	K2
c.	What is spatial mapping in AR?	2	K2,K3
d.	What is meant by user presence in VR?	2	K2 ,K3
e.	Write two key features of Unity used in AR/VR.	3	K2
f.	What is field of view (FoV) in AR/VR headsets?	4	K2
g.	Define the term "Mixed Reality Continuum."	5	K2,K4

SECTION B

2. Attempt any three of the following:

07 x 3 = 21

a.	Describe the working and use of motion tracking systems in VR headsets.	1	K2
b.	Discuss the design considerations while creating user interfaces for AR applications.	2	K2,K3
c.	What is the application of VR in Education? How VR helps in making education more interactive.	2,3	K2,K4
d.	Explain marker-based and marker less AR with examples.	3	K3
e.	What do you know about enhancing interactivity in AR environment	4	K2

SECTION C

3. Attempt any one part of the following:

07 x 1 = 07

a.	Briefly explain the working of VR technology	2	K2
b.	Describe how stereoscopic vision is created in VR environments.	3	K3

4. Attempt any one part of the following:

07 x 1 = 07

a.	Describe how stereoscopic vision is created in VR environments.	3	K2
b.	What is Direct Human Input? What do you understand by Special Purpose Input Devices?	4	K4

5. Attempt any one part of the following:

07 x 1 = 07

a.	Compare Unity and Unreal Engine for AR/VR content creation. Mention use cases.	3	K2
b.	Explain with examples different VR software's available in market with their advantages.	5	K3,K4

6. Attempt any one part of the following:

07 x 1 = 07

a.	Describe a step-by-step process to develop and test an AR-based educational app.	3	K2
b.	Describe the workflow of designing a VR-based game environment.	4	K3

7. Attempt any one part of the following:

07 x 1 = 07

a.	What are the major software challenges in AR implementation?	3	K3
b.	Describe the role of AI in enhancing AR/VR applications with real-world examples.	5	K4