

Total No. of Questions : 8]

NOV 2024

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13

SEAT No. :

[Total No. of Pages : 2

[6353]-47

T.E. (Computer Engineering)

AUGMENTED & VIRTUAL REALITY

(2019 Pattern) (Semester - II) (310254 B) (Elective - II)

Time : 2½ Hours]

[Max. Marks : 70

Instructions to the candidates:

- 1) Solve Q1 or Q2, Q3 or Q4, Q5 or Q6 Q7 or Q8.
- 2) Neat diagrams must be drawn wherever necessary.
- 3) Figures to the right indicate full marks.

- Q1) a) Differentiate between aural and Haptic representation in Virtual reality?[6]
- b) What is rendering system? [6]
- c) How to render complex haptic scenes with force displays? [6]

OR

- Q2) a) Describe visual representation in Virtual Reality? [6]
- b) Explain geometric based rendering system in detail? [6]
- c) Describe visual rendering methods. [6]

- Q3) a) Explain the different properties of manipulation? [5]
- b) What are the different ways to navigate in virtual world? [6]
- c) What is collaborative interaction? [6]

OR

- Q4) a) Explain how to interact with VR system. [5]
- b) Explain the substance of the virtual world. [6]
- c) What is Immersion? [6]

P.T.O.

Q5) a) Explain working of Augmented reality in detail. [12]

b) What is dimensionality? [6]

OR

Q6) a) Explain all hardware used in Augmented reality. [12]

b) What is registration and latency in AR? [6]

Q7) a) Explain software tools used for content creation in AR? [12]

b) What is Marker based tracking? [5]

OR

Q8) a) Explain Augmented reality used in mobile? [12]

b) What are different software components of AR? [5]

