

# SPPU-TE-COMP-CONTENT – KSKA Git

Total No. of Questions : 4]

SEAT No. :

PD100

[Total No. of Pages : 1

[6410]-421

## T.E. (Computer Engineering) (Insem) AUGMENTED & VIRTUAL REALITY

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

Time : 1 Hour]

[Max. Marks : 30

Instructions to the candidates:

- 1) Answer Q1 or Q2, Q3 or Q4.
- 2) Neat diagrams must be drawn whenever necessary.
- 3) Figures to the right indicate full marks.
- 4) Assume suitable data, if necessary.

- Q1) a) Differentiate between AR & VR. [5]  
b) Explain key elements of Virtual Reality. [5]  
c) Which are different input and output devices of virtual reality. Explain. [5]

OR

- Q2) a) What is augmented reality? Enlist different ingredients of an augmented reality experience. [5]  
b) How does Augmented reality works. [5]  
c) Write any 3 application of AR and VR. [5]

- Q3) a) Describe 3 Degree of Freedom (3DoF) and 6 Degree of Freedom (6DoF). [5]  
b) What is Position Tracking? Enlist different position tracking methods. [5]  
c) What is visual display? Explain different types of visual display devices in details. [5]

OR

- Q4) a) What is body tracking? Explain different techniques of body tracking commonly used in VR applications. [5]  
b) Explain Binocular cues and Monocular cues? [5]  
c) What is Haptic display? Enlist different properties of haptic display. [5]

