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**UNIVERSITY**

(Karunya Institute of Technology & Sciences)

(Declared as Deemed-to-be University under Sec.3 of the UGC Act, 1956)

Reg.No. \_\_\_\_\_\_\_\_\_\_\_\_\_

**End Semester Examination – Nov/Dec – 2016**

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|  |  | **Semester :** | **2016-17 ODD** |
| **Code :** | **12IT318** | **Duration :** | **3hrs** |
| **Sub. Name :** | **Virtual Reality Technology** | **Max. marks :** | **100** |

**ANSWER ALL QUESTIONS (5 x 20 = 100 Marks)**

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| **Q. No.** | **Sub Div.** | **Questions** | **Marks** |
| 1. | a. | What were the early commercial VR technologies? | 5 |
| b. | Draw the simple VR system architecture. Write the five classic components of VR system. | 15 |
| (OR) | | | |
| 2. | a. | In a nutshell, explain the various three dimensional position trackers available in the VR world. | 15 |
| b. | What are the different gesture input devices? How do all work? | 5 |
| 3. | a. | What is a graphics display device? Brieﬂy explain diﬀerent graphic display devices. | 20 |
| (OR) | | | |
| 4. | a. | Define sound display. Explain in detail about the human auditory system. | 20 |
| 5. | a. | Explain the model of PC based VR Engine which uses the different architecture. | 20 |
| (OR) | | | |
| 6. | a. | State and draw the multipipeline synchronization in distributed VR architectures. | 20 |
| 7. | a. | Briefly discuss on WTK and Java 3D with respect to VR programming. | 10 |
|  | b. | Write short notes on the following in the context of human factors study. | 10 |
| (OR) | | | |
| 8. | a. | What are the various methods to develop geometric modeling to create the shape of virtual objects and their appearance? | 5 |
|  | b. | Explain the different model management techniques which will help the VR engine render complex virtual environments. | 15 |
|  | | **Compulsory:** |  |
| 9. | a. | Explain the different aspects of VR health and safety issues. | 10 |
|  | b. | Write the impact of VR on professional life, private life and public life. | 10 |

ALL THE BEST