

Code: R7420505

R7

B.Tech IV Year II Semester (R07) Supplementary Examinations, March/April 2013

VIRTUAL REALITY

(Computer science and Engineering)

Time: 3 hours

Max Marks: 80

Answer any FIVE questions
All questions carry equal marks

- 1 (a) Describe the three I's of virtual reality.
(b) Discuss about the early commercial VR technology.
- 2 Explain the working of following devices:
(a) Track balls.
(b) 3-D probes.
- 3 What is PHANTOM haptic interface? What kinds of actuators and transmission mechanism does it use? Make a drawing and explain.
- 4 (a) What are agents and crowds?
(b) Explain the levels of autonomy agents, objects and crowds can have.
(c) Explain how to model the behavior of agents, crowds and objects.
- 5 Explain about the main stages involved in VR human factors study.
- 6 (a) What are the advantages of VR based rehabilitation?
(b) Describe in detail about the SIMNET architecture.
- 7 Write short notes on the following:
(a) Alternative to java 3D.
(b) Loaders in java 3D.
(c) Manipulating curve segments using lathe shape 3D.
- 8 Explain the process of creating a particle system using lines in java 3D.
