

Write to each paper:

- 8004253 Virtual reality
- Date
- Your name
- Your student number

You can answer in English or Finnish.

1. What are the classic components in virtual system architecture? Give also an example of a virtual system, and explain what these components are in practice in that system.

2. a) How does human hearing localize sound sources?
What is the difference between stereo sound and 3D-sound?

b) What is Field Of Regard?
Give examples of different FOR's, in VR systems in practice.

3. a) What does term DOF mean when talking about virtual reality?
Give examples of different DOF's

b) What is "fishtank VR". What components are included in that kind of system?

4. What is latency? What kind of problems it can cause in VR systems? What causes the latency? How much latency is tolerated?

5. Explain shortly terms
 - a) Inclinator
 - b) Avatar
 - c) Polygon

6. Explain how acoustic tracking works. What are the advantages and disadvantages of that technology?

7. Explain shortly terms
 - a) VRML
 - b) Immersion
 - c) Hybrid tracker