

**Time : 3 hrs**  
**Total Marks: 100**

1. a. Explain production schedule with an example. (10)  
b. What is the role of technical testing in Pre-production? Explain with examples. (10)  
**OR**
2. a. What is a point, a line and a plane? (6)  
b. Differentiate surface modelling from solid modelling. (6)  
c. Differentiate Triangular from Quad based mesh. Give the applications and advantages of each type. (8)
3. a. Name and Explain the various types of splines available in 3D modelling? (14)  
b. Define Dihedral angle and give its application? (6)  
**OR**
4. a. Explain the usage of the three transformation tools? (12)  
b. Differentiate local from global coordinate systems? (8)
5. a. Name and explain the various types of Boolean operations. (6)  
b. Explain the concept of hierarchies in 3D models? Give the advantages of their usage. (6)  
c. Explain Revolve and Extrusion based Modelling in detail. (8)  
**OR**
6. a. Discuss on lights in 3D applications. (12)  
b. Name and Explain the various types of rendering algorithms present in 3D packages. (8)
7. a. Name and Explain the various parameters that are input into render settings before the final rendering. (10)  
b. Explain the working of Bump maps? (6)  
c. What is transparency mapping? Give an example? (4)  
**OR**
8. a. Explain Shape deformations with examples? (14)  
b. What are Motion Paths? Give their applications? (6)
9. a. Explain Procedural modelling with an example. (4)  
b. How are Hair and fur modelled? Explain the parameters involved. (12)  
c. What is Laser Contour scanning? (4)

**Wishing you All the Best**