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**Question Paper Code: U7F03**

B.E./B.Tech. DEGREE EXAMINATION, NOV 2025

Seventh Semester

Computer Science and Design

21UCD703- 3D MODELING AND ANIMATION

(Regulations 2021)

Duration: Three hours

Maximum: 100 Marks

Answer ALL Questions

PART A - (10 x 2 = 20 Marks)

1. Mention few tips for configuring the user interface. CO1-U
2. Define mesh, its types and uses CO1-U
3. Discuss the key strategies used to optimize the interface. CO1-U
4. What is Additive modeling? Mention its advantages and Disadvantages. CO1-U
5. Define Materials and its components. CO1-U
6. What are the characteristics of Sourced Texture nodes? CO1-U
7. Mention some of the best practices for camera Animation CO1-U
8. Define HDRI Lighting. CO1-U
9. Discuss few tips for Efficient Rendering. CO1-U
10. What is compression? CO1-U

PART – B (5 x 16= 80 Marks)

11. (a) Explain in detail about configuring the user interface including hotkeys, interface color, marking menus and display modes. CO1-U (16)  
Or  
(b) Discuss in detail about the core 3D concepts. CO1-U (16)
12. (a) Discuss in detail about Polygon Components (vertices, edges, faces). Also mention its application in computer graphics. CO1-U (16)  
Or  
(b) Explain in detail about the Selection strategies for selecting and isolating component transform. CO1-U (16)

13. (a) Discuss in detail about Basic rendering nodes and attributes. CO1-U (16)  
Or  
(b) Discuss in detail about the four categories of shading nodes and how they work together to shape the rendered scene. CO1-U (16)
14. (a) Discuss in detail about the steps involved in Laying out and populating a 3D scene. CO1-U (16)  
Or  
(b) Discuss in detail about using the Render Settings window to prepare a scene for lighting. CO1-U (16)
15. (a) Explain in detail about Proper naming conventions followed during rendering image sequences. CO1-U (16)  
Or  
(b) Discuss in detail about compression codecs, quality, compression, file size. CO1-U (16)