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Question Paper Code: R5F03

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

Fifth Semester

Computer Science and Design

R21UCD503 – MULTIMEDIA TECHNOLOGIES

(Regulations R2021)

Duration: Three hours

Maximum: 100 Marks

Answer ALL Questions

PART A - (10 x 2 = 20 Marks)

1. When interactive multimedia becomes hypermedia? CO1-U
2. What is the purpose of image processing and List the steps involved in image processing? CO1-U
3. Name 5 popular image file formats. CO1-U
4. Define Codec. CO1-U
5. Why data compression is highly desirable for Multimedia activities? CO1-U
6. State the difference of purposes in video coding experts group of ITU-T and MPEG. CO1-U
7. List the types of multimedia authoring systems. CO1-U
8. What are the functions of object manager in a distributed environment? CO1-U
9. What is Blender? What are its primary functionalities in the realm of 3D modeling and animation? CO1-U
10. What are the three basic controls for manipulating an object in Blender? CO1-U

PART – B (5 x 16= 80 Marks)

11. (a) Explain in detail about Multimedia Systems Architecture with a neat sketch. CO1 - U (16)
- Or
- (b) What is a multimedia system, and what are its primary components? CO1 - U (16)
Provide examples of each component.

12. (a) Explain in detail the different file formats used in Multimedia. CO1 - U (16)
Or
(b) What are the advantages of PCIe's point-to-point connection over shared bus architecture in terms of performance and data transfer efficiency? CO1 - U (16)
13. (a) What are the various types of optical storage devices? Explain how it works in detail with a diagram. CO1-U (16)
Or
(b) Give an example of a file format that uses lossy compression and explain why it is typically used for that type of media. CO1-U (16)
14. (a) Explain in detail about different types of multimedia authoring systems. CO1-U (16)
Or
(b) Briefly explain about multimedia object servers. CO1-U (16)
15. (a) Write the steps to create a 3D model of a piece of furniture in Blender with neat sketch. CO1-U (16)
Or
(b) What are the key differences between modeling a realistic character and a cartoon character in 3D? CO1-U (16)