Reg. No. : ☐☐☐☐☐☐☐☐☐☐☐☐

Question Paper Code: U5F03

B.E./B.Tech. DEGREE EXAMINATION, NOV 2024

Fifth Semester

Computer Science and Design

21UCD503 – MULTIMEDIA TECHNOLOGIES

(Regulations 2021)

Duration: Three hours   Maximum: 100 Marks

Answer All Questions

PART A - (10 x 2 = 20 Marks)

1.	Define Fractals.	CO1 U
2.	List a few applications of image processing systems.	CO1 U
3.	Name 5 popular image file formats.	CO1 U
4.	Define Sampling.	CO1 U
5.	What are the two broad data compression techniques applied to video compression?	CO1 U
6.	State the key difference between I-frame, P-frame and B-frame.	CO1 U
7.	What are standard types of Multimedia Object Servers?	CO1 U
8.	State the primary goals of MAPI.	CO1 U
9.	What are the key components of the Blender interface?	CO1 U
10.	What do you mean by extrusion 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 are the objects defined for multimedia systems? Explain in detail.   CO1 U   (16)

12. (a) What is the JPEG file format, and why is it commonly used for digital photographs? What are the advantages and disadvantages of using JPEG?   CO1 U   (16)

Or

(b) Explain any three-color models with a neat diagram.   CO1 U   (16)

13. (a) Explain in detail about JPEG Encoder with a neat block diagram   CO1 U   (16)

Or

(b) Explain in detail about the MPEG audio compression algorithm with block diagrams.   CO1 U   (16)

14. (a) Explain about MAPI architecture.   CO1 U   (16)

Or

(b) Explain in detail about the components of a distributed multimedia system.   CO1 U   (16)

15. (a) Write the steps to create a 3D model of a house including exterior walls, doors, windows, and a roof in Blender with neat diagrams.   CO1 U   (16)

Or

(b) Describe the steps to render and composite the fire and smoke effect seamlessly into a 3D animation or scene in Blender.   CO1 U   (16)

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