

Reg. No. :

**Question Paper Code : 32841**

M.E./M.Tech. DEGREE EXAMINATIONS, NOVEMBER/DECEMBER 2022

Third Semester

Aeronautical Engineering

MU 4153 – PRINCIPLES OF MULTIMEDIA

(Common to: M.E. Aerospace Technology/M.E. Applied Electronics/ M.E. Automobile Engineering/M.E. Big Data Analytics/M.E. Biomedical Engineering/M.E. Biometrics and Cyber Security/M.E. CAD/CAM/M.E. Communication Systems/M.E.

Communication and Networking/M.E. Computer Aided Design/M.E. Computer Integrated Manufacturing/M.E. Computer Science and Engineering/M.E. Computer Science and Engineering (With Specialization in Artificial Intelligence and Machine

Learning/M.E. Computer Science and Engineering (With Specialization in Networks)/M.E. Construction Engineering and Management/M.E. Digital Signal Processing/M.E. Electronics and Communication Engineering/M.E. Electronics and

Communication Engineering (Industry Integrated)/M.E. Embedded System Technologies/M.E. Energy Engineering/M.E. Engineering Design/M.E. Environmental Engineering/M.E. Industrial Engineering/M.E. Industrial Safety

Engineering/M.E. Infrastructure Engineering and Management/M.E. Internal Combustion Engineering/M.E. Manufacturing Engineering/M.E. Mechatronics/M.E. Medical Electronics/M.E. Mobile and Pervasive Computing/M.E. Multimedia

Technology/M.E. Power Electronics and Drives/M.E. Power Systems Engineering/M.E. Product Design and Development/M.E. Software Engineering/

M.E. Soil Mechanics and Foundation Engineering/M.E. Structural Engineering/M.E. Thermal Engineering/M.E. VLSI Design/M.E. VLSI and Embedded

Systems/M.Tech. Biopharmaceutical Technology/M.Tech. Biotechnology/M.Tech. Chemical Engineering/M.Tech. Information Technology/M.Tech. Nano

Science and Technology/M.Tech. Plastics Technology/M.Tech. Remote Sensing and GIS/M.Tech. Textile Technology/M.Tech. Textile Technology (with Specialization in Textile Chemistry)

(Regulations : 2021)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. What are the six elements of multimedia?
2. List the different approaches for multimedia streaming.
3. Define Mobile multimedia. Give example.
4. Is Google a media platform? Clarify.

5. What type of compression is used for videos?
6. Define multimedia indexing.
7. State the need of a codec to watch videos.
8. Is JPEG 2000 lossy or lossless.
9. What is cloud gaming and list the advantages of it?
10. Mention the purpose of text editing tool in multimedia.

PART B — (5 × 13 = 65 marks)

11. (a) What type of multimedia is document? With necessary illustrations explain the multimedia document architecture. (13)

Or

- (b) List the three types of multimedia networking. List and explain the key challenges faced during multimedia transmission over wireless and mobile networks. (13)

12. (a) (i) List the types of color models in multimedia. With illustrations explain the CMYK color model. (10)

- (ii) What's the difference between a colour model and a color space? (3)

Or

- (b) Brief how animation is useful in multimedia. List the types of animation with some examples. (13)

13. (a) Describe the features and types of authoring tools. Explain in detail about icon and object – based tools. (13)

Or

- (b) (i) State the importance and salient features of image and sound editing. (5)

- (ii) List the tools used for editing pictures in multimedia with relevant diagram. (8)

14. (a) Explain MPEG video compression standard and describe the components of MPEG compression technique. (13)

Or

- (b) What are the three types of GIF? Explain with example about the GIF coding standard and JPEG standard. (13)

15. (a) What are the five phases of ADDIE model? Explain how ADDIE model is used for building multimedia application. (13)

Or

- (b) What is feature extraction in multimedia IR? How is it helpful for data retrieval? Explain the content – based multimedia retrieval system in detail. (13)

PART C — (1 × 15 = 15 marks)

16. (a) (i) What is the difference between JPEG and JPEG 2000?  
(ii) Explain the JPEG 2000 image compression technique. (15)

Or

- (b) Explain the role of Social Media towards multimedia information sharing Brief about different social media platform for multimedia sharing. (15)

[binils.com](http://www.binils.com)