Total number of printed pages: 02 **Diploma (D)/2nd Semester/DAMT202**

2025

ELEMENTS OF MULTIMEDIA

Full Marks: 100

Time: Three hours

The figures in the margin indicate full marks for the questions.

Answer **Question No. 1** and ***any four*** from the rest.

1. A) Fill in the blanks: (10x1 = 10)

i. Digital signals have two amplitude levels called _____.
ii. A binary tree can be created by using the _____ coding algorithm.
iii. A capital letter is called _____ letter in text.
iv. Clickable, push able graphical objects are called _____.
v. For colour to exist, a viewer, an object and _____ is required.
vi. An alpha channel contains _____ information.
vii. The unit of sound volume is measured in _____.
viii. Sounds above 20KHz are called _____.
ix. Two _____ makes up a video frame.
x. Google Chrome is an internet _____.

B) State True or False: (1 x 10 =10)

i. Continuous media are time independent.
ii. International diacritics like ã, é are included in the ASCII character set.
iii. Print resolution is measured in dots per inch.
iv. Purple is a warm colour.
v. In the YUV colour model, Y-signal encodes colour information.
vi. Dot-matrix colour printers can print faster than colour laser printers.
vii. Musical tone between 4 and 16 Hz cannot be heard but felt via the sense of touch.
viii. Component video contains both colour and brightness information on a single channel.
ix. Apps used for chat are called Instant Messengers.
x. The range of a Personal Area Network is 10 feet.

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2. A) What are the elements of multimedia? (6)
   B) What are the components of a multimedia system? Give examples. (2+2= 4)
   C) Describe the different types of data compression with diagrams. 4+4+2 = 10)

3. A) Explain what is a typeface, font and font style. (6)
   B) What is the difference between a symbol and an icon? (4)
   C) Draw any 5 symbols and any 5 icons. (5+5 = 10)

4. A) State the differences between Vector and Raster Graphics. (5+5 = 10)
   B) Describe the process of anti-aliasing with a diagram. (5)
   C) Mention any five ways in which you can acquire digital images. (5)

5. A) What is acoustics? How is it different from psychoacoustics? (2+2 = 4)
   B) Differentiate between musical sound and noise. (3+3 = 6)
   C) Describe the composition of a MIDI file with a diagram. (6+4 = 10)

6. A) What is a video? Explain what are video frames and frame rate (2+2+2 = 6)
   B) Briefly describe the different types of TV Broadcast standards. (3x3 = 9)
   C) Name any five video file formats. (5)

7. Write short notes on ***any four*** of the following: (4x5 = 20)
   A) Case sensitive text
   B) Image Depth
   C) Interlacing
   D) LAN
   E) Browser
   F) Immersive VR

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