C6-R4: MULTIMEDIA SYSTEMS

NOTE:

1.	Answer question 1 and any FOUR from questions 2 to 7.
2.	Parts of the same question should be answered together and in the same sequence.

Time: 3 Hours   **Total Marks: 100**

1.
a)   What are text, hypertext and hypermedia?
b)   Explain the role of key frames in video processing.
c)   Illustrate the importance of JPEG 2000.
d)   What do you mean by tracking and kerning?
e)   What are the the challenges for multimedia transmission?
f)   Mention the classification of MIDI system message.
g)   What is tele-operation? Describe augmented reality.

(7×4)

2.
a)   Describe lossless and lossy compression scheme.
b)   What do you mean by virtual reality? What are the principles of animation?
c)   What is Run Length Encoding (RLE)? Explain it with example.

(6+6+6)

3.
a)   Describe DCT compression scheme.
b)   With an example explain Zig-Zag scan?

(12+6)

4.
a)   Why is it required for a monitor to refresh the image on the screen?
b)   How does interlacing function and where it is used?
c)   Distinguish between pixel addressability and resolution.

(6+6+6)

5.
a)   Give a general procedure to implement filtering to an image in frequency domain.
b)   Explain the MPEG-1 audio encoder and decoder.

(10+8)

6.
a)   Describe MIDI file format.
b)   How many databases are there for multimedia data?

(9+9)

7.
a)   Write a short note on IEEE 1394 interface.
b)   Describe about MMX Register.
c)   What are the protocols for the multimedia data transport?

(5+5+8)