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 is the distinction between lossy and lossless data compression?
b)   Difference in Intra and inter object synchronization.
c)   Compare Virtual reality with Augmented reality.
d)   What is meant by the terms Multimedia and Hypermedia? Distinguish between these two concepts.
e)   What is RAID technology and what advantages does it offer as a medium for the storage and delivery of large data?
f)   Describe MPEG-4 encoding scheme.
g)   Discuss OLAP operation in multidimensional data model.

(7x4)

2.
a)   Explain in detail about MIDI and MIDI Messages.
b)   What is QoS for multimedia delivery? Illustrate the QoS Framework for the same.

(9+9)

3.
a)   Compare and Contrast JPEG and MPEG. How would motion JPEG differ from MPEG?
b)   How many bits may be required for encoding the message 'mississippi'?

(9+9)

4.   Write short notes on:
a)   Multimedia Interchange
b)   RTP and RSVP
c)   IEEE 1394

(6+6+6)

5.
a)   What is Lempel-Ziv-Welch (LZW) Algorithm? How does it work? Write psudocode of LZW Encoding.
b)   Explain how modern era of VR brought advances in computing technologies? Give detail of any two modern VR applications in detail?

(9+9)

6.
a)   Discuss on any two transport layer protocols used for multimedia transmission.
b)   What Multimedia Authoring paradigms exist? Describe each paradigm briefly.

(9+9)

7.
a)   What are the factors which affect the quality and usability of a Virtual Reality Applications? Explain briefly.
b)   What do you understand by instancing of a node? Explain the use of DEF and USE keywords supported by VRML.

(10+8)