

**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 the characteristics of temporal media data?
  - b) Describe the roll of synchronization, events, scripts and interactivity during presentation.
  - c) List the main characteristics of JPEG 2000. Differentiate JPEG and JPEG 2000.
  - d) What are the characteristics of MMX?
  - e) Briefly describe components of MIDI.
  - f) How SMIL functions? Explain it with example and list the methods for SMIL running techniques.
  - g) What is Video on Demand?

**(7x4)**
2.
  - a) Discuss the mechanism content based image retrieval technique with block diagram.
  - b) Explain MPEG-4 compression scheme.

**(9+9)**
3.
  - a) Explain the terms: Sector, Track, Platter, Cylinder, R/W head.
  - b) Compute the size from 16 heads from 1400 cylinder that contains 16 sector/track consists of 512 bytes/sector.
  - c) Explain the role of temporal relation in video analysis.
  - d) What the main methods for file allocation??Explain them with its advantage and disadvantages.

**(5+4+3+6)**
4.
  - a) Explain the classification of compression technology for graphic objects.
  - b) Is MP3Compression scheme is different from MPEG. Compare two multimedia compression algorithms.
  - c) What is seek time, latency time and transfer rate?

**(9+6+3)**
5.
  - a) How RTP and RSVP are different?
  - b) Discuss the standards of video conferencing.
  - c) Explain types of MIDI message.

**(7+9+2)**
6.
  - a) Explain Real-time scheduling algorithms: Fixed-priority and Dynamic-priority algorithms with example.
  - b) What are the main characteristics required for operating system to support multimedia data.

**(12+6)**
7.
  - a) What is data glove? Why is it necessary for virtual world interfacing purpose?
  - b) Discuss various types of displaying techniques for virtual world interfacing.
  - c) What is Huffman coding? Where is it used? Explain it with example.

**(6+6+6)**