

Con. 2839-09.

(REVISED COURSE)

VR-4188

(3 Hours)

[Total Marks : 100]

**N.B. :** (1) Question No. 1 is **compulsory**.(2) Solve any **four** questions from the remaining **six** questions.(3) Assume suitable data wherever **required**.

1. One of the most important application using both technologies networks and multimedia is distance learning. You are appointed as a consultant to design the system. For such an application - 20
  - (a) Specify the hardware and software requirements for the same, if this application is to be used in distributed environment.
  - (b) Design its workflow and hence design the entire multimedia system.
2. (a) Draw and explain the workstation based architecture for multimedia systems. Also specify the hardware and software expected at each layer (if any) considering an example. 10
  - (b) Explain MPEG in detail. 10
3. (a) Draw a neat labelled diagram for a flat bed scanner. Explain scanning mechanism and CCD used in scanning operation. 10
  - (b) Explain RIFF with respect to various kinds of chunks and give pseudo code for .WAV and .AVI for RIFF. 10
4. (a) Explain audio/video streaming and the role of RTP, RTSP, RSVP and RTCP in streaming. 10
  - (b) Explain voice recognition system in detail. 10
5. (a) You are appointed as a consultant to develop an implementation strategy for an automated tourist system that helps its customers to plan this tours. The system has agencies that provides services like air, railway, luxury, economic planning of tour, hotels, services etc. for such a system - Design the multimedia authorising system and also specify the multimedia data base schema for the same. 10
  - (b) Explain WORM read/write operation in detail. 10
6. (a) Explain hypermedia messaging with a suitable example. 10
  - (b) Explain different scheduling and policing mechanism in multimedia networking. 10
7. Write short notes on any **two** :— 20
  - (a) Design considerations related to virtual reality
  - (b) Multimedia architecture and telecommunication considerations
  - (c) Storage and retrieval technology.