

( 4 )

7. (a) How resource control can be done in multimedia streaming using QOS ? Explain. 5  
(b) What is the framework for a multimedia distributed processing model ? Explain. 5
8. Write short notes on any two : 5 + 5  
(i) Multimedia conferencing model  
(ii) Multimedia information system  
(iii) Distributed multimedia systems.

Total Pages—4

**MCA-5**  
**Multi**

**Set-1**

*Full Marks : 70*

*Time : 3 hours*

Answer any six questions including Q. No. 1  
which is compulsory

*The figures in the right-hand margin indicate marks*

1. Answer the following : 2 × 10
- (a) What is the difference between continuous and discrete stream ?
- (b) What is scriptware ? Explain.
- (c) What is pulse code modulation ? Explain.
- (d) Classify the categories of sound in term of range of frequencies.
- (e) What values does a 3-bit quantization results ?

( 2 )

- (f) What is Kell factor? What is its use in vertical resolution? Give an example.
- (g) How YUV signal can be generated from RGB?
- (h) How multimedia OS differs from traditional OS? Give few points.
- (i) What is the use of QOS in distributed multimedia system?
- (j) What is interactive TV? Explain using example.
2. (a) Describe the components of multimedia system. Explain its functions. 5
- (b) What is the need of multimedia authoring tool? Explain using some example. 5
3. (a) Give an account of audio signal processing and audio production. 5
- (b) Explain various components of synthesizers. Explain the MIDI protocol. 5

( 3 )

4. (a) What are the granularity of motion picture? How can you transmit a motion picture over a communication channel? 5
- (b) What is the difference between shape interpolation and parametric key frame animation? Explain using an example. 5
5. (a) What is the difference between a lossless process and a lossy process in compression? Explain using example. 5
- (b) What is the difference between JPEG and MPEG in terms of picture preparation? Explain. 5
6. (a) Write down SCAN-EDF algorithm. How it is used in multimedia disk scheduling? 5
- (b) Give an account of real time scheduling system model. Explain using the figure find out process utilization for both rate monotonic scheduling (RMS) and earliest deadline first (EDF). 5