

BT-6/M09
Multimedia Techniques
Paper : CSE-321

9705

Time : Three Hours]

[Maximum Marks : 100

Note :- Attempt FIVE questions in all, selecting at least ONE question from each unit. All questions carry equal marks.

UNIT-I

1. (a) With the help of suitable examples, explain the following :-
 - (i) Shading and Anti-aliasing. 6
 - (ii) Multimedia authoring and Multimedia presentation. 6
- (b) Discuss the architecture of ATM. What are the basic design features of the ATM and ADSL technologies ? 8
2. (a) Explain the role of multimedia servers and databases. 10
- (b) Differentiate between the following :-
 - (i) Multimedia and Internet. 5
 - (ii) Morphing and Presentation devices. 5

UNIT-II

3. (a) Distinguish between the following :-
 - (i) GIF and PNG 5
 - (ii) JPEG and TIFF. 5
- (b) What is quantization ? Briefly discuss the role of vector drawing in image compression. 10
4. (a) Differentiate between the following :-
 - (i) JPEG statistical coding 6
 - (ii) JPEG predictive lossless coding. 6
- (b) Discuss the role of color palettes in digital image compression. 8

UNIT-III

5. (a) Explain the following :-
 - (i) Sub-band coding 5
 - (ii) Digital audio signal processing. 5
- (b) Differentiate between the following :-
 - (i) Digital video and image compression. 5
 - (ii) Audio compression and decompression. 5
6. (a) What do you mean by audio synthesis ? Discuss the role of MPEG motion video compression standard. 10
- (b) With the help of suitable examples, explain the quadrasonic and stereophonic signal processing techniques. 10

UNIT-IV

7. With the help of suitable examples, explain the following :-
 - (i) Desktop virtual reality 5
 - (ii) Virtual reality operating system 5
 - (iii) Intelligent multimedia systems 5
 - (iv) Intelligent virtual reality software systems. 5
8. (a) Briefly explain the role of virtual environment displays and orientation tracking in virtual reality. 10
- (b) Briefly explain the applications of environment in various fields of virtual reality. 10