

This question paper contains 3 printed pages.

5184-Q

Your Roll No.

B.Sc. (Prog.) / II Sem.

B

(Concurrent Course)

MATHEMATICAL SCIENCES

CSCT-402 (i)— Multimedia Systems

(Admissions of 2011 and onwards)

Time : 3 hours

Maximum Marks : 75

*(Write your Roll No. on the top immediately
on receipt of this question paper.)*

*Q. No. 1 is compulsory. Attempt any five out of the
remaining questions. All parts of a question
should be answered together.*

1. (a) Define pixel addressability and aspect ratio of a monitor. 2
- (b) Name a file format used in Adobe Photoshop software. 1
- (c) WAV and MP3 file formats are used for which media? Out of these which has smaller file size? 2
- (d) Differentiate between kerning and leading. 2
- (e) Explain at least three characteristics of multimedia. 3
- (f). Describe the use of multimedia in business and education. 4

P. T. O.

- (g) List four characteristics of sound. 2
 - (h) What is Vector Graphics? 2
 - (i) Differentiate between intraframe and interframe compression. 3
 - (g) Define cell animation. 2
 - (k) Explain the concept of layers. 2
2. (a) A 15 inch monitor with aspect ratio of 4 : 3 has a pixel addressability of 800×600. Calculate its resolution. 3
- (b) Explain the advantages and disadvantages of CRT over LCD. 4
- (c) Explain the concept of non-linearity. 3
3. Distinguish between :
- (a) ASCII and Unicode scheme 4
 - (b) Bitmap fonts and vector fonts 3
 - (c) Huffman coding and LZW coding methods. 3
4. (a) Define the following file formats with their uses :
BMP, JPG, GIF and TIFF. 8
- (b) Give the justification to the statement, "The colors of an image may appear different on two different monitors." 2

5. (a) What are the basic components of an audio system? Describe their functions. 6
- (b) What is the general MIDI specification and what is its utility? 4
6. (a) Distinguish between component and composite video signal formats. 6
- (b) Specify the hardware requisitions (minimum *four*) for multimedia playback. 4
7. (a) What is animation? Discuss at least two types of animation. 6
- (b) What is tweening? 2
- (c) Which animation file format uses LZW compression? What are its advantages? 2
8. (a) What is SMPTE time code? Explain non-drop and drop modes. 5
- (b) What is multimedia data base system? How is its storage and retrieval different from a normal text database? 5