Name : ....

Roll No. : ....

Invigilator's Signature : ....

CS/B.Tech (ICE-OLD)/SEM-6/IC-602/2013

2013
MULTIMEDIA

Time Allotted : 3 Hours   *Full Marks* : 70

The figures in the margin indicate full marks.

Candidates are required to give their answers in their own words
as far as practicable.

GROUP – A
(Multiple Choice Type Questions)

1. Choose the correct alternatives for the following : $10 \times 1 = 10$

    i)   The language used by Power Point is

          a) Win Script   b) Java Script

          c) VBA   d) None of these.

    ii)   Resolution of VGA monitor is (in pixels)

          a) 640×480 b) 800×600

          c) 1024×768 d) 320×440.

    iii) BMP format uses which of the following algorithm

          a) Huffman   b) Run Length Encoding

          c) Neither (a) nor (b)   d) both (a) and (b).

    iv)   DCT stands for

          a) Discrete Cosine Transformation

          b) Direct Colour Transformation

          c) Different Coding Transformation

          d) None of these.

v) EPS is stands for
   a) Encapsulated Post Script
   b) Encrypted Post Script
   c) Enhanced Post Script
   d) None of these.

vi) Kerning is
   a) Vertical gap between two lines
   b) Smallest component of written language
   c) Horizontal gap between characters
   d) None of these.

vii) ODA stands for
   a) Open Document Architecture
   b) Open Directory Architecture
   c) Over Delay Architecture
   d) None of these.

viii) Two parts of morphing algorithm are
   a) wrap and tweening   b) tweening and wrap
   c) wrap and dissolve   d) tweening and dissolve.

ix) The minimum refresh rate
   a) 25 Hz   b) 50 Hz
   c) 70 Hz   d) 30 Hz.

x) GIF stands for
   a) Graphics Image Format
   b) Grey Information File
   c) Geographical Information File
   d) None of these.

GROUP – B

(Short Answer Type Questions)

Answer any *three* of the following.   3 × 5 = 15

2. Differentiate between Huffman Encoding and Arithmetic Encoding.

3. What are the difference between

   a) free text and field text

   b) component video format and composite video format.

   2 + 3

4. Define temporal compression. Compare Spatial and Temporal compression.

5. What is multimedia ? What are the applications of multimedia ? 1 + 4

6. Describe in brief different audio file format.

GROUP – C
(Long Answer Type Questions)

Answer any *three* of the following.   3 × 15 = 45

7. a) What is animation ? What are the classification of animation ? Explain the basis of classification.

   b) Why synchronization is so important in multimedia presentation ?

   c) Describe 3 significant differences between vector image and bitmap image.   (2 + 6) + 4 + 3

8. a) What is compression ? What is the need of compression ?

   b) Describe the steps of JPEG compression technique.

   c) Describe different frames in MPEG compression.

   (1 + 2) + 7 + 5

9. a) What is the characteristic feature of Multimedia system ? What are the different image file formats.

b) A message compromising of seven character *A to G* is to be transmitted over a data link. Analysis has shown that the relative frequency of occurrence of each character is A : 0·10 B : 0·25 C : 0·05 D : 0·32 E : 0·01 F : 0·07 G : 0·2.

c) What is meant by MDBMS ? Discuss different characteristics of MDBMS.   (2 + 2) + 6 + (2 + 3)

10. a) Define Quantization, Sampling and Quantization Error related to the digitization of analog signal with suitable diagram.

b) What are the differences between RGB and CMYK color model ? What is device dependency ?

c) Distinguish between 2D and 3D Animation.

(2 + 2 + 1) + (3 + 2) + 5

11. Write short notes on any *three* of the following :   3 × 5

a) Components of Multimedia

b) MIDI

c) Animation

d) DPCM

e) Text File Format

f) Hypertext & Hypermedia.