



Name :

Roll No. :

Invigilator's Signature :

**CS/B.Tech (IT)/SEM-6/IT-605/2010
2010**

MULTIMEDIA TECHNOLOGY & APPLICATION

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) PAL is a/an
 - a) Digital video standard
 - b) Analog video standard
 - c) Audio file standard
 - d) Text file standard.
 - ii) Kerning is
 - a) vertical gap between two lines
 - b) smallest component of written language
 - c) horizontal gap between two characters
 - d) none of these.
 - iii) Raster scanning starts from
 - a) top left corner of the screen
 - b) top right corner of the screen
 - c) bottom left corner of the screen lines
 - d) bottom right corner of the screen.



- iv) Synthesizer is a/an
- a) protocol
 - b) cable
 - c) instrument
 - d) none of these.
- v) What will be the size of 1200×1600 image of 16 bit depth ?
- a) 29.29 mb
 - b) 117 kb
 - c) 192 kb
 - d) none of these.
- vi) DCT stands for
- a) Discrete Cosine Transformation
 - b) Direct Colour Transformation
 - c) Differential Coding Transformation
 - d) none of these.
- vii) MIDI is a/an
- a) protocol
 - b) instrument
 - c) cable
 - d) none of these.
- viii) CD-ROM operates on
- a) 1 Mode
 - b) 2 Mode
 - c) 3 Mode
 - d) 4 Mode.
- ix) .MOV is used for
- a) Quick time movie
 - b) Windows media player
 - c) MPEG
 - d) none of these.
- x) RLE stands for
- a) Reverse Line Encoding
 - b) Run Length Encoding
 - c) Run Line Encoding
 - d) none of these.



GROUP – B

(Short Answer Type Questions)

Answer any *three* of the following. $3 \times 5 = 15$

2. State the Nyquist sampling theorem. What is sampling ? How does sampling rate effect file size ? $2 + 1 + 2$
3. Explain the terms 'hypertext' and 'hypermedia' ? What is leading ? $4 + 1$
4. What are the MIDI messages ?
5. What is morphing ? Differentiate between morphing and shape tweening. $2 + 3$
6. What is animation ? Explain key frame and tweening. $2 + 3$

GROUP – C

(Long Answer Type Questions)

Answer any *three* of the following. $3 \times 15 = 45$

7. What are different image file formats ? Explain Discrete Cosine Transformation. Why is DCT useful in compression ? $4 + 7 + 4$
8. a) Differentiate between CAV for hard disks and CLV for CDs. How is CD-ROM format different from the CD-DA format ? What do you mean by Mode 1 and Mode 2 ?

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b) What do you mean by onion skinning and masking ?
What is their utility in animation ? $3 + 3 + 4 + 5$

9. a) What do you mean by CODEC ? What is the difference
between intraframe and interframe compressions ?

b) What do you mean by *I*-frame, *B*-frame and *P*-frame in
the context of video compression ? Explain JPEG
compression standard. $1 + 2 + 6 + 6$

10. a) What is Multimedia Database ? Describe in brief how
image database is constructed.

b) What is the ADDIE model and where is it used ? What
do you mean by a script and a story and how do they
differ ? $2 + 5 + 4 + 4$

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

a) Quantization error

b) SGML

c) HTML

d) MIDI

e) Story Board.

