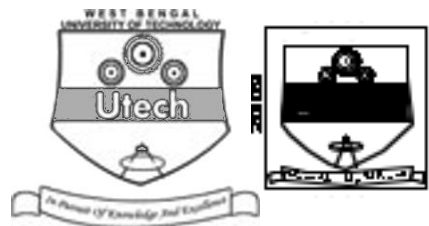


CS / B.Tech (EE) / (Supple) / SEM-7 / IT-711 / 09
MULTIMEDIA SYSTEMS (SEMESTER - 7)



1.
Signature of Invigilator

2.
Signature of the Officer-in-Charge

Reg. No.

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Roll No. of the
Candidate

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CS / B.Tech (EE) / (Supple) / SEM-7 / IT-711 / 09
ENGINEERING & MANAGEMENT EXAMINATIONS, JULY – 2009
MULTIMEDIA SYSTEMS (SEMESTER - 7)

Time : 3 Hours]

[Full Marks : 70

INSTRUCTIONS TO THE CANDIDATES :

1. This Booklet is a Question-cum-Answer Booklet. The Booklet consists of **32 pages**. The questions of this concerned subject commence from Page No. 3.
2. a) In **Group – A**, Questions are of Multiple Choice type. You have to write the correct choice in the box provided **against each question**.
b) For **Groups – B & C** you have to answer the questions in the space provided marked 'Answer Sheet'. Questions of **Group – B** are Short answer type. Questions of **Group – C** are Long answer type. Write on both sides of the paper.
3. **Fill in your Roll No. in the box** provided as in your Admit Card before answering the questions.
4. Read the instructions given inside carefully before answering.
5. You should not forget to write the corresponding question numbers while answering.
6. Do not write your name or put any special mark in the booklet that may disclose your identity, which will render you liable to disqualification. Any candidate found copying will be subject to Disciplinary Action under the relevant rules.
7. **Use of Mobile Phone and Programmable Calculator is totally prohibited in the examination hall.**
8. You should return the booklet to the invigilator at the end of the examination and should not take any page of this booklet with you outside the examination hall, **which will lead to disqualification**.
9. Rough work, if necessary is to be done in this booklet only and cross it through.

No additional sheets are to be used and no loose paper will be provided

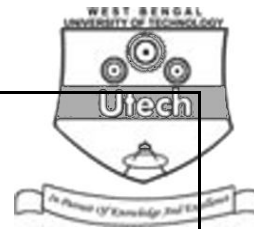
FOR OFFICE USE / EVALUATION ONLY

Marks Obtained

Group – A								Group – B				Group – C				Total Marks	Examiner's Signature
Question Number																	
Marks Obtained																	

.....
Head-Examiner / Co-Ordinator / Scrutineer

S-53011 (27/07)



DO NOT WRITE ON THIS PAGE

**CS / B.Tech (EE) / (Supple) / SEM-7 / IT-711 / 09****MULTIMEDIA SYSTEMS****SEMESTER - 7**

Time : 3 Hours]

[Full Marks : 70

GROUP – A**(Multiple Choice Type Questions)**

1. Choose the correct alternatives for the following :

10 × 1 = 10

i) The MIDI messages which synchronize the timing of MIDI devices in performance are called as

- a) Channel voice message
- b) Channel mode message
- c) System real time message
- d) System exclusive message.

ii) The graphic format which are frequently used in the UNIX to store coloured background images, is

- a) GIF
- b) TIFF
- c) BMP
- d) XPM.

iii) The minimum refresh rate to avoid flicker for all motion devices is

- a) 25 Hz
- b) 50 Hz
- c) 70 Hz
- d) 30 Hz.



iv) Run length encoding is compression technique.

a) Lossy

b) Lossless

c) Inter-frame

d) none of these.

☐

v) IGES & HPGL are storage formats.

a) Image

b) Graphics

c) both (a) and (b)

d) none of these.

☐

vi) In HTML forms attribute denotes the protocol used by the server in implementing form features.

a) Action

b) Method

c) Enctype

d) none of these.

☐

vii) The vertical gap between two lines of text is called as

a) kerning

b) morphing

c) interlacing

d) leading.

☐

viii) The synchronization which refers to the temporal relationship between an audio and video stream for the particular case of human speaking is called

a) live synchronization

b) lip synchronization

c) synthetic synchronization

d) none of these.

☐



ix) MPEG distinguishes types of image coding for processing.

a) one

b) two

c) three

d) four.



x) Which one of the following is not a part of CRT ?

a) Control grid

b) Adapter grid

c) Accelerating grid

d) Focusing grid.

GROUP – B

(Short Answer Type Questions)

Answer any *three* of the following.

3 ∞ 5 = 15

2. Define the term 'sampling', 'quantization' and 'quantization error' related to the digitization of analog signal with suitable diagram. 2 + 1 + 2

3. a) Define subtractive colour model.

b) What do you mean by colour gamut and resolution of image ?

3 + 1 + 1

4. a) What is MIDI ?

b) Explain the advantages and disadvantages of MIDI over digital audio.

c) Write the names of some audio file format.

1 + 2 + 2

5. a) What do you mean by formatted and unformatted text and hypertext ?

b) Explain the term 'kerning' and 'leading' related to text.

3 + 2

6. a) What is morphing ?

b) Write down some principle of animation.

2 + 3

**GROUP – C****(Long Answer Type Questions)**Answer any *three* of the following.

$$3 \times 15 = 45$$

7. a) What do you mean by interframe compression and intraframe compression ?
- b) A document contains letter *A* through *F* with frequencies as indicated :
- $A : 0.25$ $B : 0.1$ $C : 0.2$ $D : 0.15$
 $E : 0.26$ $F : 0.04$
- Use Huffman coding to derive a code word set.
- c) How the compression is achieved in case of JPEG. $3 + 5 + 7$
8. a) What do you mean by multimedia ? What are the different types of multimedia data stream ?
- b) Write down some uses of multimedia.
- c) What are the hardware and software requirements of multimedia ?
- d) Is there any disadvantage of using multimedia ? $(2 + 3) + 4 + 4 + 2$
9. a) Explain the term 'frame replenishment'.
- b) What do you mean by *I* frame, *P* frame and *B* frame ?
- c) How is the video data compressed in case of MPEG-1 ?
- d) Write the names of some image file format. $3 + 3 + 7 + 2$
10. a) What are Schneiderman's rule for HCI design ?
- b) Explain briefly Norman's seven stages of action for HCI design.
- c) What does ISDN stand for ? $7 + 7 + 1$



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

- a) Multimedia database
- b) Virtual reality
- c) HTML
- d) CAV and CLV
- e) Different types of animation
- f) Video conferencing.



END