



Name :

Roll No. :

Invigilator's Signature :

CS/B.Tech/EEE/SEM-7/IT-711/2012-13

2012
MULTIMEDIA SYSTEM

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 any ten of the following :

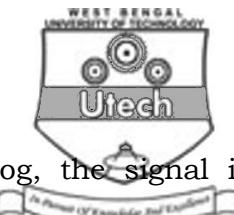
$$10 \times 1 = 10$$

- i) NTSC is a
 - a) Digital video standard
 - b) Analog video standard
 - c) Audio file standard
 - d) Text video standard.

- ii) What is the aspect ratio of computer monitor ?
 - a) 4 : 3
 - b) 6 : 4
 - c) 16 : 9
 - d) none of these.

- iii) The video adapter cable has pins.
 - a) 15
 - b) 14
 - c) 16
 - d) 17

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- iv) After conversion from digital to analog, the signal is passed through a filter.
 - a) Low-pass
 - b) High-pass.
- v) Morphing means
 - a) changing position b) changing shapes
 - c) changing colours d) scaling up or down.
- vi) SGML stands for
 - a) Synchronous Mark-up Language
 - b) Signal Mark-up Language
 - c) Standard Generalized Mark-up Language
 - d) none of these
- vii) MIDI is a/an
 - a) protocol b) cable
 - c) instrument d) none of these.
- viii) PAL is a/an
 - a) digital video standard
 - b) analog video standard
 - c) text file standard
 - d) audio file standard.
- ix) Raster scanning starts from corner of the screen.
 - a) top left b) top right
 - c) bottom right d) bottom left.

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- x) What will be the size of a 1200×1600 image of 16 colour depth ?
- a) 29.29 MB
 - b) 117 kB
 - c) 192 kB
 - d) none of these.
- xi) CD-ROM operates on
- a) 1 mode
 - b) 2 mode
 - c) 3 mode
 - d) 4 mode.
- xii) RLE stands for
- a) Reverse Line Encoding
 - b) Run Line Encoding
 - c) Run Length Encoding
 - d) None of these.

GROUP - B**(Short Answer Type Questions)**Answer any *three* of the following. $3 \times 5 = 15$

2. What is VDS ? What are the different components of VDS ?

2 + 3

3. What is refresh rate ? What is horizontal and vertical retraceing ? $2 + 3$

4. What are the functions of G1, G2 and G3 grid in CRT ?

5. What are the different types of colour model ? What is additive and subtractive colour model ? $2 + 3$

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GROUP – C
(Long Answer Type Questions)

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

6. What are the different application areas of multimedia ?
What is the need of digital representation of data ? What is sampling ? What is quantization ? What is Nyquist criteria for sampling the analog data ? $6 + 3 + 2 + 2 + 2$
7. What do you mean by resolution, aspect ratio and colour depth ? Describe briefly RGB colour model. How is it related to CMYK colour model ? What is the value of K ? Write down about three different image file formats. $3 + 4 + 4 + 1 + 3$
8. What do you mean by codec ? What do you mean by intraframe and interframe compressions ?
What do you mean by I-frame, B-frame and P-frame in context of video compression ? Explain JPEG compression standard. $1 + 2 + 6 + 6$
9. Write short notes on any *three* of the following : 3×5
 - a) SGML
 - b) HTML
 - c) Monochrome CRT
 - d) Raster and vector scan
 - e) MIDI.