



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 × 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  $1200 \times 1600$  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 retraction ?  
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 :  $3 \times 5$ 
  - a) SGML
  - b) HTML
  - c) Monochrome CRT
  - d) Raster and vector scan
  - e) MIDI.