

J 1234

B.E./B.Tech. DEGREE EXAMINATION, MAY/JUNE 2006.

Third Semester

Information Technology

IF 243 — DISPLAY SYSTEMS ENGINEERING

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. Is the size of the file an important factor in determining the quality of digital audio?
2. What is 5.1 Dolby digital?
3. What DTV, HDTV and SDTV really mean?
4. Enlist the features of DVD-video.
5. Define luminance and luminous intensity.
6. List the disadvantages of DVD.
7. What is meant by aspect ratio of a display device?
8. What is the range of frequencies in the visual spectrum? Is it continuous?
9. How is a plotter different from a printer?
10. Is there any health hazard in using a CRT?

PART B — (5 × 16 = 80 marks)

11. (i) With a sketch indicating the position of speakers explain how surround sound effect is achieved in auditoriums. (10)
- (ii) Compare and contrast MIDI and Digital Audio. (6)

12. (a) (i) Briefly explain the evolution of optical storage technology. (6)
(ii) Explain how data is stored in a DVD. (10)

Or

- (b) Explain in the detail the recording and playback mechanism found in a VCR. (16)
13. (a) (i) Explain how a plasma screen works. (10)
(ii) How does a LED work? (6)

Or

- (b) Explain the working principle of a color television system with relevant sketches. (16)
14. (a) With neat diagrams explain the working of the deflection subsystem in a Cathode ray tube. Explain how horizontal and vertical deflections are achieved with suitable examples. (16)

Or

- (b) Explain the working principle of a projection display system. (16)
15. (a) Explain about the various color models available. How is the RGB color model used to represent various colors in different modes? (16)

Or

- (b) Explain :
- (i) Alphanumeric displays and their industrial applications. (8)
- (ii) High definition displays. (8)