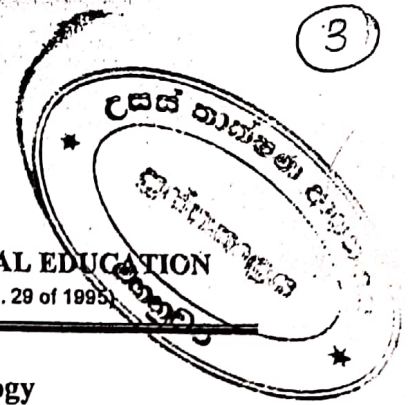



**SLIATE**
**SRI LANKA INSTITUTE OF ADVANCED TECHNOLOGICAL EDUCATION**

(Established in the Ministry of Higher Education, vide in Act No. 29 of 1995)


**Higher National Diploma in Information Technology**
**First Year, Second Semester Examination – 2018**
**IT 2002 /HNDIT1210 - Graphic and Multimedia**
**Instructions for Candidates:**

Answer any five questions

All questions carry equal marks

No. of questions : 06

No. of pages : Three pages

Time : Three (03) hours

**Q1.**

- i. What is multimedia? (02 marks)
- ii. Briefly explain about two (02) multimedia elements. (04 marks)
- iii. Based on the multimedia elements in the world, "Auditory" and "Visual" modalities are regularly used. Write two channels for each modality. (04 marks)
- iv. Write four characteristics of multimedia system (04 marks)
- v. Shane is a HNDIT student. He wants to create a short film about Kandy. He plans to include history, beauty and Facilities of Kandy. Once he creates it, he hopes to upload this video in to his "You Tube channel".  
Write six (06) components he needs to complete this short film.

(06 marks)

(Total Marks 20)

**Q2.**

- i. Write two features of multimedia system (02 marks)
- ii. Briefly explain the above two features. (04 marks)
- iii. Explain about "linear" and "non-linear" multimedia products. (04 marks)
- iv. Briefly explain raster image and vector image. (04 marks)
- v. Draw raster and vector data structure for following objects. (06 marks)

	Raster	Vector
Point		
Sample Line		
Complete line		

(Total Marks 20)

Q3.

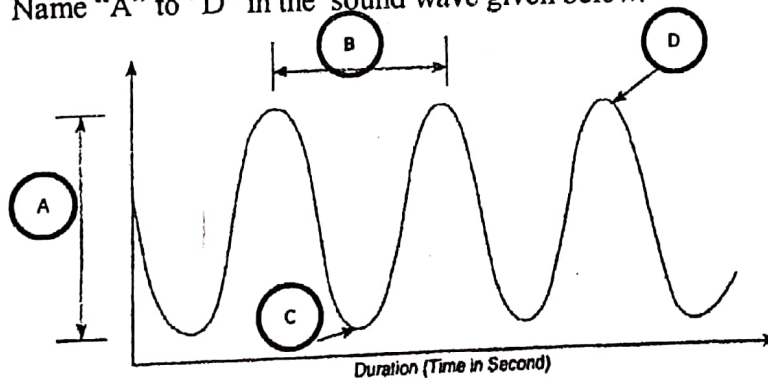
- i. Name two multimedia products. (02 marks)
  - ii. Briefly explain the above two products (04 marks)
  - iii. What are the four main typeface categories? (04 marks)
  - iv. Write four general rules you have to follow when you insert text in to multimedia project. (04 marks)
  - v. Briefly explain about three typeface spacing types. (06 marks)
- (Total Marks 20)

Q4.

- i. What is an image file format? (02 marks)
  - ii. Briefly explain "lossless" and "lossy" compression. (04 marks)
  - iii. Expand the following abbreviations. (04 marks)
    - a. GIF
    - b. EPS
    - c. PNG
    - d. JPEG
  - iv. Write four advantages of file archiving. (04 marks)
  - v. What is color theory in multimedia system? Briefly explain about "Hue" in color wheel. (06 marks)
- (Total Marks 20)

Q5.

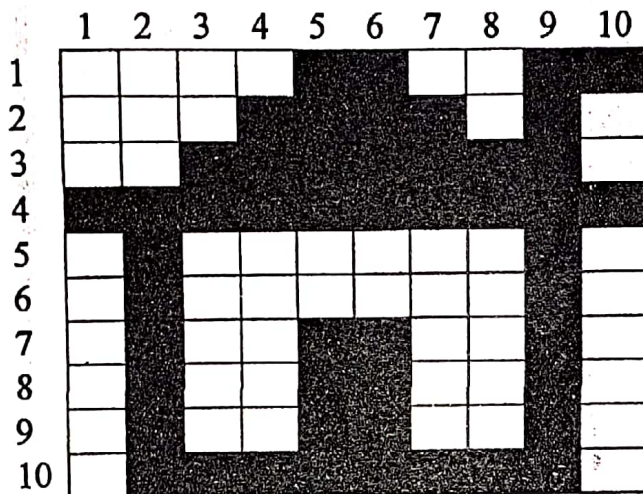
- i. What it meant by "Audio"? (02 marks)
- ii. Name "A" to "D" in the sound wave given below. (04 marks)



- iii. What it meant MIDI audio and write two main requirements for making a MIDI audio file? (04 marks)
  - iv. The 5 minute and 10 second stereo song has to be recorded in CD quality (Sampling frequency = 44100Hz (44.1 KHz) and sampling depth: 16 bit ) how much disk space has the song taken?  
[hint : file size (bits) = sampling frequency (Hz) x sampling depth (bits) x length of sound(s) x channels] (04 marks)
  - v. Briefly explain three(03) animation principles. (06 marks)
- (Total Marks 20)

Q6.

- i. What is computer graphics? (02 marks)
- ii. Name four multimedia authoring tools. (04 marks)
- iii. What are the differences between “ animation” and “video”? (04 marks)
- iv. Encode the following image using run length method using “0” for white and “1” for black. (10 marks)



(Total Marks 20)