

**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 – 2019
HNDIT1210 - Graphics and Multimedia

Instructions for Candidates:
Answer any (05) five questions
All questions carry equal marks

No. of questions : 06
No. of pages : (03) Three pages
Time : Three (03) hours

Q1.

- I. Multimedia is combination of many media to deliver interactive output to the users. (02 marks)
Write two media which can enhance the interactivity.
- II. Briefly explain (02) two of media you have mentioned in previous answer. (04 marks)
- III. Integration and interactive are two different concepts in multimedia. Briefly explain the above concepts. (04 marks)
- IV. Mention the remembering levels of people according to the Edgar Dale (cone of learning). (04 marks)
- V. If you are asked to create a short film for software competition to represent SLIATE, what are the components needed to complete the above task successfully? (06 marks)

[Total 20 Marks]

Q2.

- I. Modalities are the sensory systems through which a multimedia activity occurs. Write (02) two types of modalities use in multimedia development. (02 marks)
- II. Give (04) four basic characteristics of a multimedia system. (04 marks)
- III. Differentiate between the characteristics of linear and non-linear multimedia. (04 marks)
- IV. Multimedia authoring tools are used to merge multimedia elements. Give (04) four examples. (04 marks)
- V. Briefly describe (03) three features of multimedia system. (06 marks)

[Total 20 Marks]

not written

Q3.

Educa
Feild

I. There are number of fields where multimedia can be used. Give (02) two examples. (02 marks)

II. What is computer graphics? What is the purpose of studying computer graphics? (04 marks)
Technology is Presenting Information

III. A typeface is the basic design of a character. Give main (04) categories of typeface. (04 marks)
Serif Script
San serif Decorative.

IV. Give (04) four general rules you may follow when adding text into your multimedia presentation. (04 marks)

V. What is a MIDI file? Write (04) four advantages of MIDI file. (06 marks)

easy to Embedded web system & load & play [Total 20 Marks]
high quality midi file quality is best than digital Audio.

Q4.

I. Write (02) two testing methods used before delivering a multimedia system.

easy to upload & Download
easy to Increase size (02 marks)

II. Why data compression is necessary for multimedia developments? (04 marks)

III. Differentiate the lossless and lossy compression? (04 marks)
Increase sound.
Algorithm using & not increase

IV. Briefly explain additive and subtractive colors. (04 marks)
sound quality

V. Color consists of (03) three main integral parts. Briefly explain them. (06 marks)

[Total 20 Marks]

Q5.

I. What is meant by sound? (02 marks)
Key is the presenting information
Amplitude, length
screen

II. Write (04) properties of sound wave. (04 marks)

III. The 4 minute and 20 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 is taken by song? (04 marks)
 $260 \times 2 \times 44100 \times 2$

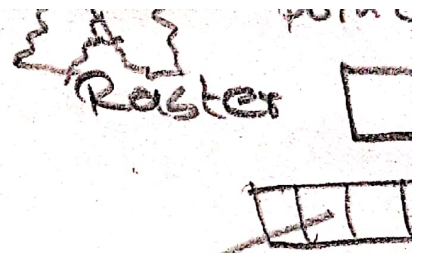
[hint : file size (bits) = sampling frequency (Hz) x sampling depth (bits) x length of sound(s) x channels]

moving Pictures

IV. Write the difference between animation and video. (04 marks)

V. Briefly explain (03) three animation principles. (06 marks)

[Total 20 Marks]



Q6.

- I. What is an image file format?
- II. Briefly explain the (02) two types of graphics: *raster* and *vector*
- III. Expand the following abbreviations.
 - a. BMP — Bit Map Photographic.
 - b. JPEG — Join photographs .exp
 - c. PNG — Portable Network Graphi
 - d. TIFF —
- IV. Draw the image of following encoded run length coding.

Row 1:	"1" , 1, 2, 1, 2, 1, 4, 1, 3, 1							
Row 2:	"0" , 1, 1, 1, 1, 1, 1, 6, 1, 1, 1, 1	<table border="1"><tr><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td></tr></table>	1	2	3	4	5	
1	2	3	4	5				
Row 3:	"1" , 7, 6, 1, 2							
Row 4:	"0" , 1, 1, 1, 1, 1, 1, 6, 1, 1, 1, 1							
Row 5:	"1" , 1, 2, 1, 2, 1, 4, 1, 3, 1							
Row 6:	"0" , 3, 1, 5, 2, 5							
Row 7:	"0" , 3, 1, 4, 2, 5							
Row 8:	"0" , 3, 1, 3, 2, 2, 2, 3							
Row 9:	"0" , 3, 1, 4, 1, 2, 1, 4							
Row 10:	"0" , 1, 5, 1, 6, 3	<table border="0"><tr><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td></tr></table>	1	2	3	4	5	6
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