



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, 2nd Semester Examination - 2012

IT 2002 - Graphics & Multimedia (New)

Instructions for Candidates:

Answer any five (5) questions.
All questions carry equal marks.

No of pages : 03

No of questions : 08

Time : Three (03) hours

- (01) (i) What is meant by "Computer Graphics" (02 marks)
(ii) Write down the four (4) graphics Applications (04 marks)
(iii) Define the term "Multimedia Authoring" (04 marks)
(iv) State four (4) popular authoring tools (04 marks)
(v) There are two type of multimedia. Linear multimedia and Non linear
Multimedia, Describe those with examples (06 marks)
(Total Marks 20)

- (02) (i) Define the terms "Vector Graphic " and "Raster Graphic " (2x2=4 marks)
(ii) How do you increase the spatial resolution of raster?
Describe with an example (04 marks)
(iii) There are some reasons to convert the raster design to vector
Design. Give three (3) reasons (2 x 3 =6 marks)
(iv) State three (3) advantages and three (3) disadvantages of vector graphics
(3x2=6 marks)
(Total Marks 20)

- (03) (i) Define the term "Animation" (02 marks)
- (ii) State three(3) types of animations (03 marks)
- (iii) Describe the followings.
 (a) Story board layout
 (b) Defining the object of animation
 (c) Specifying the key-frame
 (d) Generation of in between key frames (3x4=12 marks)
- (iv) Define the term "Morphing" (03 marks)
- (Total Marks 20)
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- (04) (i) What is meant by Audio? (02 marks)
- (ii) State three (3) advantages and disadvantages of MIDI audio (3x2=6 marks)
- (iii) What are the compulsory requirements of "making MIDI audio" (04 marks)
- (iv) When we are adding sound to a multimedia project, We have to consider some points, Write down 3 of them (03 marks)
- (v) What is meant by digital audio and what are the advantages of Digital Audio (05 marks)
- (Total Marks 20)
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- (05) (i) Define the terms "Analog Video" " and "Digital Video" (2x2=4 marks)
- (ii) Describe the following compression methods regarding video Compression
 (a) Inter frame compression
 (b) Object based compression (3x2=6 marks)
- (iii) Describe following video file formats
 (eg:- .wmv-Windows media video file)
 (a) .flv
 (b) .mov
 (c) .mpg
 (d) .rm (04 marks)
- (iv) There are two types of image file compression methods. Briefly explain them (3x2=6 marks)
- (Total Marks 20)
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- (06) (i) Write short notes on the followings

- i. BMP-Bitmap file format
- ii. JPEG-Joint photographic experts Groups
- iii. GIF- Graphics Interchange format (3x3=9 marks)

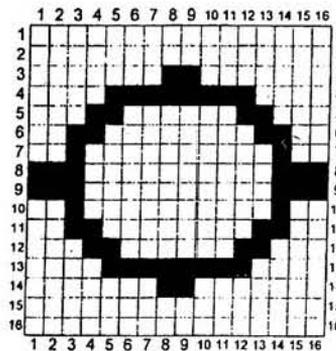
- (ii) Write down the four (4) characteristics of a multimedia system (04 marks)
- (iii) List three (3) issues in multimedia application design (03 marks)
- (iv) State four (4) examples for multimedia applications (04 marks)

(Total Marks 20)

- (07) (i) Write down the three (3) multimedia delivery methods (03 marks)
- (ii) "The terms alpha and beta are used by software developers to describe levels of product development when testing is done. Briefly describe what is Alpha testing and Beta testing methods (08 marks)
- (iii) What is meant by file archives? (04 marks)
- (iv) Describe the methods to deliver multimedia project on the World Wide Web (05 marks)

(Total Marks 20)

- (08) (i) What is meant by "Digital Video Compression"? (04 marks)
- (ii) Define the term "Run Length" (02 marks)
- (iii) Explain the term "Image Encoding"? (02 marks)
- (iv) Encode the following image using "run length coding" method. (08 marks)



- (v) What is meant by compression ratio? (04 marks)

(Total Marks 20)