

Ollscoil na hÉireann, Gaillimh
National University of Ireland, Galway

Semester II Examinations, 2004/2005

Exam Code(s)	<u>1SD1</u>
Exam(s)	<u>HIGHER DIPLOMA (SOFTWARE DESIGN AND DEVELOPMENT)</u>
Module Code(s)	<u>CT863</u>
Module(s)	<u>INTERACTIVE MEDIA TECHNOLOGIES</u>
Paper No.	<u>1</u>
Repeat Paper	<u>Special Paper</u>
External Examiner(s)	<u>Prof. D. Bell</u>
Internal Examiner(s)	<u>Prof. G. Lyons</u>
	<u>Mr. A. Reilly</u>

Instructions:

Answer 4 questions. All questions carry equal marks

Duration	<u>2 hrs</u>
No. of Answer books	<u>1</u>

Requirements:

Handout	<u></u>
MCQ	<u>3</u>
Statistical Tables	<u></u>
Graph Paper	<u></u>
Log Graph Paper	<u></u>
Other Material	<u></u>

No. of Pages	<u>4</u>
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Department(s)	<u>Information Technology</u>
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Q1 (a) Define what is meant by multimedia and outline the advantages of using it in a computer application. (8)

(b)(i) Describe the process of capturing video for use in a multimedia application, outlining the problems involved. (10)

(ii) A 20 second video clip is captured at 25 frames per second in true colour at a resolution of 200 x 140 pixels. Calculate the final size of the digital file if a compression ratio of 10:1 was achieved. (7)

Q2 (a) Describe the Software Development Life Cycle (SDLC), outlining its shortcomings for multimedia development. (10)

(b)(i) Write a note on the role of storyboards and flowcharts in the multimedia development process. (8)

(ii) Create a simple storyboard and script for the title page of a multimedia marketing application, extolling the virtues of prunes. (7)

Q3 (a) List the types of skilled personnel required to develop a multimedia application, writing short notes on the creative members of the team. (12)

(b)(i) List the 4 main types of multimedia authoring systems. (4)

(ii) Outline the factors involved in choosing a multimedia authoring system to develop a project. (9)

Q4 Write notes on 3 of the following: (25)

- (a) Computer animation
- (b) Distribution of multimedia applications
- (c) 4 common multimedia development blunders
- (d) Multimedia Project Planning
- (e) Legal issues with multimedia
- (f) Streaming technology in digital video transmission

Q5 (a) Write notes on the use of colour and interactivity in multimedia applications. (12)

(b) (i) In designing a user interface, what guidelines should the designer adhere to from the screen design point of view? (5)

(ii) Write a note on interface evaluation, outlining the benefits it provides. (8)

- Q6 (a) (i) List the 4 main problems associated with the Internet before the advent of the world wide web, and outline how the web alleviated them. (7)
- (ii) List the 5 quality components relating to web site usability. (5)
- (b) Given below is the basic outline for a farm machinery company home page on the web. Show how the page can be enhanced using multimedia effects. (13)

```
<HTML>
  <HEAD>
    <TITLE>
      Acme Farm Products Home Page
    </TITLE>
  </HEAD>

  <BODY>
    <H2>Welcome to Acme Farm Products</H2>
    <P> We are the <B>world leaders</B> in our field.</P>

    Click <A HREF=
"http://www.acmefarmproducts.com/Products.html">here</A> to see our
product list.

  </BODY>
</HTML>
```

- Notes:** 1. Describe briefly what any extra features added are or where they are to link to.
2. You are not expected to design any further web pages.
3. A table of HTML tags and attributes is included below.
4. The final contents of the home page are left to your imagination.