



**NATIONAL OPEN UNIVERSITY OF NIGERIA
14-16 AHMADU BELLO WAY, VICTORIA ISLAND, LAGOS
SCHOOL OF SCIENCE & TECHNOLOGY
JANUARY/FEBRUARY 2013 EXAMINATION**

Course Code: CIT 735 **Time:** 3hrs
Course Title: Application Software Design and
Multimedia
Course Credit Unit: 3

Instruction: Answer any five (5) questions

QUESTIONS

- 1a. Explain the concept of the coding toolbar. (10 marks)
- 1b. What is the full meaning of the acronym HTML? (2 marks)
- 1c. State the main features of AJAX (8 marks)
- 2a. Give a brief description of five (5) work models in the user-centered design process. (10 marks)
- 2b. Identify three (3) main hardware requirements for capturing video images (6 marks)
- 2c. List two (2) standards employed in video capturing and display, (4 marks)
- 3a. State any two (2) components of deliverables. (2 marks)
- 3b. Explain by means of examples, any two (2) facts to be deduced from the concept of multimedia. (10 marks)
- 3c. Describe any four (4) considerations at the needs assessment phase. (8 marks)
- 4a. What is the import of video compression with respect to Application Software Design and Multimedia? (2 marks)
- 4b. Describe the Zoom User Interface (3 marks)
- 4b. Image animation entails a number of processes. Explain these processes by means of a diagram. (15 marks)
5. State four (4) major differences between the Bitmap graphic and the Vector graphic.
[Total =20 marks]

6a. What are the various phases involved in the development of multimedia applications? (10 marks)

6b. Identify any five (5) sorts of animation. (10 marks)

7a. Describe the notion of 'persistence of vision' (5 marks)

7b. List any three facets of the 'loop of interaction' (3 marks)

7c. Give a brief description of the following:

:

- i. Gray area)
- ii. Throughput) (4 marks each, Total=12)
- iii. Error-rate)



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JANUARY/FEBRUARY 2013 EXAMINATION**

Course Code: CIT711 **Time:** 2½ hrs

Course Title: Computer Fundamentals **Course Credit Unit:** 3

Instruction: Answer any FIVE questions. Each question carries 14 marks

- 1a) Briefly discuss the following memory types) 9 marks
(i) RAM (ii) ROM (iii) PROM (iv) EPROM
- b) Compare and contrast the parallel and serial interface) 5marks
- 2a) Write short notes on the following storage devices: (9½ marks)
(i) Magnetic Disk (ii) Magnetic Tape (iii) CD-ROM
- b) compare the storage devices in (2a) above based on the following parameters: (4½ marks)
i) storage capacity
ii) access mode
iii) access time performance of storage
iv) physical nature

- 3a) Differentiate between the CRT and LCD display) 6 marks
b) Compare and contrast the laser and Dot matrix printers) 6 marks
c) What is the advantage of using an array?) 2 marks
- 4a) Briefly describe the following concepts (12 marks)
(i) Pipelining (ii) Vector Processing (iii) Parallel Processing
b) Give two functions of a looping statement in a programming language?) 2 marks
- 5a) Write briefly on the following:) 9 marks
(i) Local Area Networks
(ii) Metropolitan Area Networks
(iii) Wide Area Networks
b) give the difference(s) between a subroutine and a function?
) 5 marks
- 6a) List the difference(s) between network operating systems and distributed operating systems) 7½ marks
b) Describe the following:) 4 marks
(i) MODEM (ii) Full Duplex
c) In the context of data transmission, define Cryptography (**2½ marks**)
- 6a) With the aid of a diagram, outline the layers of the OSI reference model) 7 marks
b) State the function(s) of each layer of the model) 7 marks



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MAY/JUNE 2012 EXAMINATION

CIT 711 USER INTERFACE DESIGN AND ERGONOMICS (3 CR)

TIME ALLOWED: 3HRS

INSTRUCTIONS: Answer 5 Questions

1a What is a User Interface? (5 marks)

1b. List and explain any three (3) types of User Interfaces.(9 marks)

1c. Explain User Interface Modalities and Modes (6 marks)

2a. Mention and explain the three (3) pillars to an application success? (6 marks)

2b. List and explain any five (5) tips for designing good User Interface.(10 marks)

2c. Mention four basic principles to remember about users (4 marks)

3a. What do you understand by Graphical User Interface? (6 marks)

3b Explain what you understand by “Human-Computer Interaction (HCI)” (8 marks)

3c. Mention any three goals of Human-Computer Interaction (6 marks)

4a. What is Ergonomics? (4 marks)

4b. List and explain three aspects of Ergonometic. (12 marks)

4c. Mention two benefits of Ergonomics (4 marks)

5a What is a motor skill? (5 marks)

5b. Write a short note on the following

(i) Gross motor skills

(ii) Fine motor skills

(iii) Ambidexterity

(3 marks each)

5c. Write three (3) facts about Colours (6 marks)

6a What is Prototyping? (5 marks)

6b. List and Explain three different prototyping techniques.(9 marks)

6c. Mention three fidelity types of Prototyping (6 marks)

7a. What is Model-View-Controller (MVC) with examples? (7 marks)

7b. Write short note on the following:

(i) Evaluating with the Users

(ii) Evaluating without the Users(4 marks each)

7c. Mention any five (5) common programming languages and tools that support the implementation of MVC. (5 marks)



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JANUARY/FEBRUARY 2013 EXAMINATION

Course Code: CIT 753 **Time:** 3hrs
Course Title: Introduction to Internet
Course Credit Unit: 3
Instruction: Answer any five (5) questions.

QUESTIONS

- 1a. Outline the procedure for setting up a signature file. (10 marks)**
- 1b. Give the full meaning of 'HTML', explaining each word. (10 marks)**
- 2a. What is the significance of a counter on a webpage? (2 marks)**
- 2b. Describe the procedure for accomplishing the following tasks:**
- i. Creating a bookmark (7 marks)
 - ii. Adding a theme to a site (6 marks)
 - iii. Creating an e-mail hyperlink (5 marks)
- 3. The Internet explorer buttons below are critical, state their specific roles:**
- i. The Search Button)
 - ii. The Favorites Button) 4 marks each
 - iii. The Front Button)
 - iv. The Main Button)
 - v. The Edit Button)
- 4a. Give a brief description of the following:**
- Favorites)
 - File Transfer Protocol) (3 marks each)
 - World Wide Web)
 - E-Mail)
- 4b. List four (4) hardware and two (2) software components of a network. (8 marks)**
- 5a.**
- i. Identify two (2) critical factors required for subscribing to a newsgroup.
(4 marks)
 - ii. What is the relevance of the newsgroup subscription information?
(4 marks)
- 5b. Describe the following terms:**
- (i) Standard Protocol)
 - (ii) Public Protocol) (4 marks each,
Total=12)
 - (iii) Private Protocol)

6a. Describe briefly how you would carry out the following searches in www.google.com :

- i. Keyword Search
- ii. Subject Search

(8 marks)
(8 marks)

6b. State the procedure for cropping a graphic?
(4 marks)

7a. As an expert in Internet, what would you do to be able to view other web designers source code?
(10 marks)

7b. Outline the steps required to make an image transparent.
(10 marks)

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Course Title: CIT759: Micro-Computing and WWW

Instruction: Attempt any five (5) questions

Credit Unit: 3

Time: 3hrs

DATE: FRIDAY 25TH JANUARY, 2013

Question 1

Write briefly on the following;

- i) Ergonomics
- ii) Resolutions
- iii) Newsgroup
- iv) Motherboard

20 Marks

Question 2

- i) Contrast Parallel and Serial Connectors
- ii) Contrast Printers and Scanners
- iii) Contrast BITS and BYTES

20 Marks

Question 3

Write short notes on the following;

- i) Central Processing Unit (CPU)
- ii) ALU
- iii) Memory
- iv) CU
- v) Input Unit
- iv) Output Unit

20 marks

Question 4

Write briefly on the following;

- a) Pixels
- b) Arithmetic Logic Unit (ALU)
- c) Byte
- d) Home page

20 Marks

Question 5

Write the short cut for;

- a) Creating a new document
- b) Saving a document
- c) Opening a document
- d) Printing a document
- e) Undoing an operation/action

20 Marks

Question 6

Outline the steps to;

- a) Saving a document
- b) Opening a document
- c) Printing a document

20 Marks

Question 7

Write short notes on the following;

- a) Floppy Disk Drives
- b) Hard Disk
- c) Zip Drives.

Marks

20



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SCHOOL OF SCIENCE AND TECHNOLOGY
JUNE/JULY EXAMINATION

COURSE CODE: CIT711

COURSE TITLE: Computer Fundamentals (3 units)

TIME ALLOWED: 2½ hrs

INSTRUCTION: Answer any other FIVE questions. Each question carry 14 marks

- 1a. . List (in the correct sequence) the OSI reference model layers
(9 marks)
- 1b. State the functions of any five of the layers of the OSI model.
(5 marks)

- 2a. State four possible ways to increase the computer memory speed.
(6 marks)
- 2b. Enumerate the four time-honoured principles of ensuring security and recovery in case of breaches of security?
(8 marks)

- 3a. Enumerate the three basic steps in Cryptanalysis.
(6 marks)
- 3b. Diagrammatically illustrate the key features of the Von Neumann machine.
(8 marks)

- 4a. Write short note on I/O module interface?
(4 marks)
- 4b. State three reasons why an I/O module is needed
(6 marks)
- 4c. Briefly describe the Network Operating System (NOS).
(4 marks)

- 5a. What is multiplexing?
(3marks)
- 5b. Enumerate the two ways of using multiplexing.
(6 marks)
- 5c.. What is the purpose of a looping statement in a programming language?
(2 marks)
- 5d. What are the two components of the Application Software?
(3 marks)

- 6a. Mention any two reasons for increased complexity that led to Complex Instruction Set Computers (CISC)
(2 marks)

6b. Flynn's classification divides the computers into four categories as follow:

- (i) Single Instruction Single Data (SISD)
- (ii) Single Instruction Multiple Data (SIMD)
- (iii) Multiple Instruction Single Data (MISD)
- (iv) Multiple Instruction Multiple Data (MIMD)

You are required to explain what you understand by each of i, ii, iii, and iv above. (8 marks)

6c.) State and explain two advantages of having densely packed Integrated Circuits in the computer

7a. What is Routing?

(2 marks)

7b. Briefly describe each of the following routing devices:

- i. Bridges)
 - ii. Routers)
 - iii. Gateways)
- (6 marks each)

iv.

v.

vi.

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x. SCHOOL OF SCIENCE AND TECHNOLOGY

xi. JUNE/JULY EXAMINATION

xii.

xiii. COURSE CODE: CIT701

**xiv. COURSE TITLE: FOUNDATION OF INFORMATION AND
COMMUNICATION TECHNOLOGY**

xv. TIME ALLOWED: 3 Hours

xvi. INSTRUCTION: Answer Any Five Questions

xvii.

xviii. 1a. What is Information and Communication Technology (ICT)? 3 marks

xix. b. List the three main components of ICT.
6 marks

xx. c.. State five ways by which information can be transmitted. 5 marks

xxi.

xxii. 2a. What is a system program?
4 marks

xxiii. b. Outline any four kinds of System programs
10 marks

xxiv.

xxv. 3a. List and briefly describe any three pointing devices.
3 marks

- xxvi. b. Which category of device is the Optical Character Recognition (OCR)? 2 marks
- xxvii. c. State six basic functions of a mouse. 9 marks
- xxviii.
- xxix. 4a. What is a communication network? 3 marks
- xxx. b. List any three network service applications. 3 marks
- xxxi. c. Explain what is meant by the term network channels. 3 marks
- xxxii. d. List any five types of Transport Technology. 5 marks
- xxxiii.
- xxxiv. 5a. List and briefly describe the four types of wireless communication networks 8 marks
- xxxv. b. State the three types of Network Enterprise Architectures 6 marks
- xxxvi.
- xxxvii. 6a. Explain the elements of a URL and the purpose of each. 6 marks
- xxxviii. b. . Explain what is meant by downloading and uploading. 3 ½ marks
- xxxix. c. What are the three basic elements of an e-mail message? 4 ½ marks
- xl.
- xli. 7a. Differentiate between security and breaches. 5 marks
- xlii. b. Distinguish between spam and cookies. 5 marks
- xliii. c. List four measures taken to ensure ICT service reliability. 4 marks
- xliv.



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JUNE/JULY EXAMINATION

COURSE CODE: CIT735

COURSE TITLE: Application Software Design and Multimedia

TIME ALLOWED: 3hrs

INSTRUCTION: Answer any five (5) questions

QUESTIONS

- 1a. Give a brief explanation of the concept of digitization of video. (4 marks)
1b. If a sample of 440 X 360 resolution has 32 bits per pixel; establish the raw video size of the SCAM video system that transforms at 23 frames/s

(10 marks)

[Total = 14 marks]

- 2a. Identify and describe by means of examples any two facts that can be deduced from the Multimedia notion. (10 marks)
2b. List and briefly explain any two (2) components of **deliverables**. (4 marks)

[Total = 14 marks]

- 3a. Explain the following delivery strategies by means of well labelled diagrams:

- i. Direct changeover) 5 marks
ii. Parallel running) 5 marks

(10 marks)

- 3b. List any 4 components of a basic layout.

(4 marks)

[Total = 14 marks]

- 4a. Write on five (5) work models in the user-centred design process. (10 marks)
4b. State any 2 standards used in video capturing and display. (4 marks)

[Total = 14 marks]

- 5a. Give a brief explanation of the following terms:

:

- iv. Frame)
v. Animating) (4 marks each, Total=12)
vi. Rendering)

- 5b. Give any 2 aspects of the 'loop of interaction' (2 marks)

[Total = 14 marks]

- 6a. Draw a block diagram, illustrating the various processes involved in the animation of images. (12 marks)

- 6b. Give a brief description of the Zoom User Interface (2 marks)

[Total = 14 marks]

- 7a. List the phases of the multimedia system development life cycle. (10 marks)

- 7b. Specify the essential aspect to be borne in mind at the preliminary needs assessment stage. (4 marks)

[Total = 14 marks]

