



# THE MOMBASA POLYTECHNIC UNIVERSITY COLLEGE

(A Constituent College of Jkuat)

*Faculty of Engineering and Technology*

DEPARTMENT OF ELECTRICAL AND ELECTRONIC ENGINEERING

DIPLOMA IN TECHNOLOGY

DIPLOMA IN COMPUTER NETWORKS ENG

DIPLOMA IN COMPUTER SCIENCE ENGINEERING

WEB DESIGN, DEVELOPMENT & CONFIGURATION

END OF SEMESTER EXAMINATIONS

SERIES: AUGUST/SEPTEMBER 2011

TIME: 2 HOURS

## **Instructions to Candidates:**

You should have the following for this examination

- *Answer booklet*

Answer question **ONE (COMPULSORY)** and any other **TWO** questions

This paper consists of **THREE** printed pages

### Question 1 (Compulsory)

- a) Design a simple webpage featuring the following components (10 marks)
- i) Headers
  - ii) Paragraph
  - iii) Bold text
  - iv) Italicized text
  - v) Hypertext link
  - vi) An image
  - vii) Lists
  - viii) Blue background colour
  - ix) Comments
  - x) Line breaks
- b) With the aid of diagrams describe the 3-Tier Client-Server system as applied to web design and configuration (7 marks)
- c) Describe the concept of browser compatibility test (2 marks)
- d) State **THREE** well known picture formats used in web design (3 marks)
- e) Name the **TWO** most commonly used web servers (2 marks)
- f) Distinguish between the internet and the World wide web (4 marks)
- g) Distinguish between client side and server side scripting language (2 marks)

### Question 2

- a) Describe CSS as applied in web design (5 marks)
- b) Distinguish between the following CSS styles giving example application in each case (9 marks)
- (i) Inline style sheets
  - (ii) Embedded style sheets
  - (iii) External style sheets
- c) State the **TWO** selectors used in CSS and describe how each of them is employed in web design (6 marks)

### Question 3

- a) With the aid of simple PHP scripts explain the functionality of the following programming loops (9 marks)
- (i) The FOR loop
  - (ii) The DO....WHILE.....loop
  - (iii) IF...ELSE loop

- b) Describe the function of forms in PHP programming (1 mark)
- c) Distinguish between method POST and GET as used in with the html forms for sending data from one point to another (4 marks)
- d) (i) Define the term array  
(ii) Outline **TWO** advantages of using arrays over variables (6 marks)

#### Question 4

- a) (i) Define the following terms  
(a) Primary key  
(b) Foreign key (4 marks)
- (ii) Describe the **THREE** broad categories into which SQL can be classified (6 marks)
- b) Write simple SQL commands that will perform the following functionalities  
(i) Create a database called DIPLOMA  
(ii) In this database create **THREE** field table called LESSON that has **THREE** fields  
(iii) Separately write SQL code that can INSERT, DELETE and UPDATE records within the database (10 marks)

#### Question 5

- a) Define and describe the use of the following terms as used in PHP  
(i) Operators  
(ii) Variable  
(iii) Function (6 marks)
- b) Using practical example, describe the functioning of at least **THREE** different categories of operators (9 marks)
- c) With a typical “helloworld” program outline the syntax of the PHP server side scripting language. (5 marks)