



(Knowledge for Development)

KIBABII UNIVERSITY COLLEGE

A CONSTITUENT COLLEGE OF

MASINDE MULIRO UNIVERSITY OF

SCIENCE AND TECHNOLOGY

UNIVERSITY EXAMINATIONS

2014/2015 ACADEMIC YEAR

SECOND YEAR SECOND SEMESTER

MAIN EXAMINATION

FOR THE DEGREE OF

BACHELOR OF SCIENCE COMPUTER SCIENCE

COURSE CODE: CSC 226

COURSE TITLE: CLIENT/SERVER COMPUTING

DATE: 29th APRIL, 2015

TIME: 3.00PM-5.00PM

INSTRUCTIONS TO CANDIDATES

Answer Question One in Section A and Any other TWO (2) Questions in Section B

TIME: 2 Hours

Instructions:

Answer Question 1 and any other two questions from section B. Time: 2 Hours

SECTION A (Compulsory – 30 Marks)**QUESTION 1**

- a) Explain the following concepts in relation to Client server computing:
- (i) Middleware (4 Marks)
 - (ii) JavaScript (4 Marks)
 - (iii) Common Gateway Interface (4 Marks)
- b) Explain each of the following enterprise-wide web – based applications security issues:
- (i) Authentication (2 Marks)
 - (ii) Integrity (2 Marks)
 - (iii) Confidentiality (2 Marks)
 - (iv) Non-repudiation (2 Marks)
 - (v) Authorization (2 Marks)
- c) Explain the purpose of:
- (i) An active X component. (4 Marks)
 - (ii) External Style sheets (2 Marks)
- d) Explain three typical uses of DOM (3 Marks)
- e)

SECTION B (Attempt any TWO Questions from this section – 40 Marks)**QUESTION 2**

- a) Explain the client server model with the aid of a diagram (5 Marks)
- b) A function is a block of code that will be executed when "someone" calls it.
- (i) Write the syntax of a function in JavaScript. (3 Marks)
 - (ii) Illustrate how a function is written in JavaScript using an example. (4 Marks)
 - (iii) JavaScript is an object based programming language. Briefly explain any four objects by giving an example in each. (8 Marks)

QUESTION 3

- a) Identify and explain any four HTML Form attributes (4 Marks)
- b) Describe the sequence of actions needed for a server side program to decode form data (6 Marks)
- c) Write an HTML code to implement the following Form (10 Marks)

The screenshot shows a web browser window with the title "User Input Form - Mozilla Firefox". The form itself is titled "User Input Form" and is divided into three main sections. The first section, "Personal Particular", contains a "Name:" label followed by a text input field, a "Password:" label followed by a text input field, a "Gender:" label with two radio buttons labeled "Male" and "Female", and an "Age:" label followed by a dropdown menu currently showing "< 1 year old". The second section, "Languages", contains three checkboxes labeled "Java", "C/C++", and "C#". The third section, "Instruction", contains a text area with the placeholder text "Enter your instruction here...". At the bottom of the form are two buttons labeled "SEND" and "CLEAR".

QUESTION 4

- a) Client/server systems are constructed so that the database can reside on a central computer, known as a server, and be shared among several users. Users access the server through a client or server application:

Explain five benefits of having data stored and managed in a central location. (10 Marks)

- b) (i) Explain two roles of HTTP protocol (4 Marks)
- (ii) Describe the **HTMLElement** Interface (6 Marks)

QUESTION 5

- a) (i) Explain the role of RPC in client server transactions (7 Marks)
- (ii) What are the three important enabling technologies for standard based DHTML.
Explain. (3 Marks)
- b) Write PHP code that implements the following page when executed in a web server: (10 Marks)

localhost/form1.php

localhost/form1.php

PHP Form Validation Example

Name:

E-mail:

Website:

Comment:

Gender: ☐ Female ☐ Male

Your Input:

Molckredeck Oumwudo
muelch@gmail.com
www.koc.ac.ke
learning session in server side script language
male