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**University Examinations 2014/2015**

SECOND YEAR SECOND SEMESTER EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE COMPUTER TECHNOLOGY,

THIRD YEAR FIRST SEMESTER EXAMINATION FOR THE DEGREE OF BACHELOR OF BUSINESS INFORMATION TECHNOLOGY AND BACHELOR OF SCIENCE IN INFORMATION TECHNOLOGY

AND

THIRD YEAR SECOND SEMESTER EXAMINATION FOR THE DEGREE OF BACHELOR OF BUSINESS INFORMATION TECHNOLOGY

**CIT 3325/CIT 3301: INTERNET APPLICATION PROGRAMMING**

 **DATE: APRIL 2015 TIME: 2 HOURS**

**INSTRUCTIONS:** *Answer question* ***one*** *and any other* ***two*** *questions*

**QUESTION ONE (30 MARKS)**

1. Give any two features of JavaScript programming language (2 Marks)
2. Explain the purpose of the following as used in JavaScript to work with objects (6 Marks)
3. Method
4. Property
5. Events
6. Explain the meaning of the following JavaScript statements: (4 Marks)
7. setInterval
8. onLoad
9. Differentiate between POST and GET methods as used in web scripting (2 Marks)
10. Explain the role of the following scripting languages in web development giving two examples in each
11. Common Gateway Interface
12. Client-side interactive scripting language (4 Marks)
13. Write PHP code to assign two numbers then use a function to calculate the square of the number entered (4 Marks)
14. Design a JavaScript code to input a number then use a function to calculate the square of the number entered (4 Marks)
15. Briefly explain the process of creating a remote web server (4 Marks)

**QUESTION TWO (20 MARKS)**

1. JavaScript identifies each object on a web page by naming them using a structured hierarchy called Document Object Model. Use a diagram to describe JavaScript DOM object hierarchy (5 Marks)
2. (i) Design HTML form to enter user name and password where password characters are

 hidden. The form elements should include submit, reset buttons and a php file called

 pass.php where details entered will be submitted to (3 Marks)

(ii) Write JavaScript code to ensure that password entered in the form created in 2 (b) above

 has more than 6 characters (3 Marks)

(iii) Assuming that the text to be compared with the entered password via html form created

 in (a) above is stored in a php file, write php code to verify if the password exist

 (5 Marks)

1. Write a JavaScript code to perform the following:
2. Display the current date (2 Marks)
3. Convert entered text to uppercase (2 Marks)

 **QUESTION THREE (20 MARKS)**

1. Write HTML statement to create a form having two textboxes, radio buttons, a checkbox and a reset button. On clicking the reset button, the entire form in reset (cleared) (5 Marks)
2. Write JavaScript code to create form with 4 textboxes, then a JavaScript code should be used to verify that all textboxes have been filled. If a Textboxes has been left empty, an alert should be displayed the message “empty box”. (5 Marks)
3. Differentiate between the following logical operators (4 Marks)
4. and &&
5. = = and =
6. Write a php script to receive student name, Maths, English and Kiswahili marks then calculate the total marks and average marks then display result (6 Marks)

**QUESTION FOUR (16 MARKS)**

1. An organization would like to design a website that will enable salesmen to enter details of their sales which are submitted to the organization’s database
2. Design a HTML form with features to enter salesman number, product number, product name, quantity and price then display total price. Include a method to send the details to a PHP file called product.php (5 Marks)
3. Write a PHP code to receive the above details and calculate the total price and commission which is offered according to products sold. A commission of 20% is offered if the total sale is more than 100,000 otherwise a commission of 10% is offered (6 Marks)
4. Outline the request/response process between a web browser and a web server when the

 browser request information from a server (4 Marks)

1. When designing a website, planning is a key component in ensuring that a website meet the

 objective of an organization. Outline the process of planning in website design. (5 Marks)

**QUESTION FIVE (20 MARKS)**

1. Write HTML code that will be able to generate the following information in a web browser (5 Marks)

A. Degree course

* BBIT
* BSC. IT
* BSC. Computer Science

B. Diploma courses

* Diploma IT
* Diploma BIT
* Diploma in Computer Science
1. A company requires a website where field managers can enter employee name, hours worked and rate per hour of an employee then calculate basic pay=hours worked multiplied with rate per hour. Tax is calculated on basic pay as follow:

|  |  |
| --- | --- |
| **Basic pay** | **Tax** |
| Over 50000 | 20% of total price  |
| Between 20000 and 50000 | 10% of total price  |
| Below 20000 | No discount |

Design a website that will enable field supervisors to enter the above details and calculate basic pay, tax and net pay at the client-side (6 Marks)

1. Before 1990, Internet connection was expensive with only a few organizations in the developed countries connected to the internet. Today internet is one of the most popular means of communication and sharing information. Discuss five factors that have contributed to a widespread use of internet. (5 Marks)
2. Differentiate between **echo** and **print** commands used in PHP (4 Marks)