

## **SECTION ONE**

### **QUESTION ONE [30 Marks]**

- a) JavaScript is categorized as a client-side script while PHP as a server side script. Describe any three differences between the two categorizations. [6 Marks]
- b) Discuss any four best practices towards ensuring good web application security. [8 Marks]
- c) Consider a web page for registering participants for a football match at the entrance of Nyayo Stadium. Write the HTML code for such a page that includes a form with fields for the Audience Name, ID Number, Gender, and Age. [8 Marks]
- d) Write a script that sends the registration data to a MySQL database upon clicking of the Register button. Assume the connection is established using server name “localhost”, username “clientdata” and password “password”. Further, assume that a database and table already exist, named as, “soccer” and “register” respectively. [8 Marks]

## **SECTION TWO**

### **QUESTION TWO [20 Marks]**

- a) Create web form for uploading pictures for a high school reunion. The form should have text input fields for the person’s name and a description of the image, and a file input for the image. [10 Marks]
- b) To accompany each image file, create a text file that contains the name and description for the image. [10 Marks]

### **QUESTION THREE [20 Marks]**

a) Using an example of your choice, describe the process of retrieving data from the database using PHP scripts. [5 Marks]

b) Consider a database called hotel with a table called users that stores the username and password. Assume:

- All password are stored in an MD5 encrypted format
- The database is hosted on IP address 92.18.0.10 with host name "user" and password "2030".

Create a login implementation for the case. Upon successful login, let a session be created with the username as the main identifier. [15 Marks]

#### QUESTION FOUR [20 Marks]

a) Using examples of your own choice, supported with clear explanation, explain the relationship between the "nested if ... else statement" and the "switch statement" as applied in decision-making in PHP scripts. [10 Marks]

b) Using examples of your own choice, supported with clear explanation, explain how the "for loop" can be used to perform a task similar to that of a "foreach loop". [10 Marks]

#### QUESTION FIVE [20 Marks]

Considering the management of state information in a web-based application:

a) Using appropriate example codes, supported with explanations, discuss the four tools that can be maintaining state information in web applications [16 Marks]

b) Which amongst the four tools describe in (a) is the most appropriate for login management. [4 Marks]  
Why?

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