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**KABARAK UNIVERSITY**

**UNIVERSITY EXAMINATIONS**

**MAIN CAMPUS**

**FIRST SEMESTER, 2020/21 ACADEMIC YEAR**

**EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE IN COMPUTER SCIENCE AND BACHELOR OF SCIENCE IN INFORMATION TECHNOLOGY**

**COMP 440: CLIENT –SERVER SIDE PROGRAMMING**

**STREAM: Y4S2 TIME: 2:00-4:00 PM**

**EXAMINATION SESSION: SEPT-DEC DATE:** **02/02/2021**

**INSTRUCTIONS TO CANDIDATES**

1. **Answer Question 1 and any other two questions in the answer booklet provided.**
2. **Do not write on your question papers. All rough work should be done in your answer booklet.**
3. **Clearly indicate which question you are answering.**
4. **Write neatly and legibly.**
5. **Edit your work for language and grammar errors.**
6. **Follow all the instructions in the answer booklet**

**SECTION A: (COMPULSORY) TOTAL MARKS FOR THIS SECTION IS 30.**

**QUESTION ONE 30 MARKS**

1. Distinguish between a primary key and a foreign key in MySQL database (4 Marks)
2. Write SQL query statement syntax to update a record in a table with new values (3 Marks)
3. Define a function in PHP (2 Marks)
4. Briefly explain **THREE** advantages of using functions in a PHP program (3 Marks)
5. Define the meaning of Constraints as used in MySQL (2 Marks)
6. Explain **FOUR** features that make LINUX a popular open source operating system

(4 Marks

1. Write a PHP code using **FOR… LOOP** to print numbers 10 to 20 and display them vertically on the screen (4 Marks)
2. Distinguish between asort and ksort functions (2 Marks)
3. Write the PHP function code that allows a programmer to establish a connection to MySQL database (3 Marks)
4. Draw a flowchart to illustrate how the **FOR…EACH…LOOP** works (3 Marks)

**SECTION B. TOTAL MARKS FOR THIS SECTION IS 50.**

**ANSWER ANY TWO QUESTIONS FROM THIS SECTION. EACH QUESTION IN THIS SECTION CARRIES 25 MARKS.**

**QUESTION TWO 20 MARKS**

1. Define a PHP Array (2 Marks)
2. Each with an example, explain **THREE** types of array functions in PHP (6 Marks)
3. Write a PHP code using **FOR… EACH LOOP** to read and print the elements of an array

(4 Marks)

1. Write a program to demonstrate the implementation of PHP multidimensional array

(4 Marks)

1. State **FOUR** advantages of arrays in programming (4 Marks)

**QUESTION THREE 20 MARKS**

1. Define the term open source software (2 Marks)
2. Using a diagram, discuss the **THREE** major components of a Linux Operating System

(6 Marks)

1. Write the PHP equivalent code for the below HTML script and display the out HTML form

(7 Marks) **HTML Script**

<form>

Enter your name<input type="text" name="name"/><hr/>

Enter your email<input type="text" name="eid"/><hr/>

Enter your mobile<input type="text" name="mob"/><hr/>

<input type="submit" value="INSERT"/><hr/>

</form>

1. Write a PHP program that uses the **WHILE Loop** to displays integers 50 to 60 as output

(5 Marks)

**QUESTION FOUR 20 MARKS**

1. Explain the following types of SQL:
2. Data Control Language (2 Marks)
3. Data Definition Language (2 Marks)
4. Data Manipulation Language (2 Marks)
5. Write a PHP program code that creates a database and a table of users with the following user information: User ID, User Name, User Password, User Mobile Phone and User Gender. (8 Marks)
6. Write a PHP program to demonstrate how to Create a String Using single quotes (6 Marks

**QUESTION FIVE 25 MARKS**

1. List **FOUR** types of software server solutions provided by PHP community under the General Public Licence (GNU) (4 Marks)
2. Write a PHP code to create a function that converts kilometers to miles. The kilometers will be passed as a parameter. The function will return the miles equivalent to the passed kilometers (5 Marks)
3. Explain FIVE advantages of an open source software (5 Marks)
4. Write a PHP script that connects to MySQL table of employees shown below and deletes a record of employee whose ID is 3 (6 Marks)

|  |  |  |  |
| --- | --- | --- | --- |
| Emp\_ID | Name | Email | Phone |
| 1 | John | John@gmail.com | 75482233 |
| 2 | Jack | Jack@gmail.com | 1112548 |
| 3 | Jane | Jane@gmail.com | 3258674 |