



KABARAK

UNIVERSITY

UNIVERSITY EXAMINATIONS

MAIN CAMPUS

FIRST SEMESTER 2019/2020 ACADEMIC YEAR

**EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE IN COMPUTER
SCIENCE**

COMP 440: CLIENT –SERVER SIDE PROGRAMMING

STREAM: Y4S2

TIME: 2:00-4:00PM

EXAMINATION SESSION: SEP- DEC

DATE: 17/12/2019

VENUE: AUDITORIUM

COPIES: 25

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.**

As members of Kabarak University family, we purpose at all times and in all places, to set apart in one's heart, Jesus as Lord. (1 Peter 3:15)



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6. Follow all the instructions in the answer booklet

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

QUESTION ONE [30 MARKS]

- a) What is a PHP function? (2 Marks)
- b) Distinguish between Proprietary and Open source software (2 Marks)
- c) Define the meaning of Constraints as used in MySQL (2 Marks)
- d) Write a PHP code using “**IF... THEN... ELSE**” statement to determine the larger value between two numbers (4Marks)
- e) Distinguish between:
 - (i) Primary Key (2 Marks)
 - (ii) Unique Key (2 Marks)
 - (iii) Foreign Key (2 Marks)
- f) 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)
- g) Briefly explain **FOUR** types PHP functions (4 Marks)
- h) Briefly discuss any **FIVE** advantages of an open source to software developers (5 Marks)

SECTION B. TOTAL MARKS FOR THIS SECTION IS 40.

ANSWER ANY TWO QUESTIONS FROM THIS SECTION. EACH QUESTION IN THIS SECTION CARRIES 20 MARKS.

QUESTION TWO [20 MARKS]

- a) What does client-server architecture mean? (2 Marks)

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- b) Write a PHP code using **WHILE... LOOP** to print numbers 1 to 5 and display them vertically on the screen (5 Marks)
- c) Explain the function of **Break** and **Continue** control statements in the implementation of a program code (4 Marks)
- d) Name **THREE** Datatypes used in MySQL (3 Marks)
- e) Write a PHP program to demonstrate how to Create Strings Using Double quotes (6 Marks)

QUESTION THREE [20 MARKS]

- a) Define a PHP string (2 Marks)
- b) Using a diagram, discuss the **THREE** major components of a Linux Operating System (6 Marks)
- c) To access the database functionality we have to make a connection to database using PHP. `mysql_connect()` function is used to establish the connection to mysql server. State **FOUR** arguments that need to be passed to `mysql_connect()` function (4 Marks)
- d) Briefly explain the **FIVE** types of SQL commands (5 Marks)
- e) Distinguish between RDBMS and DBMS (3 Marks)

QUESTION FOUR [20 MARKS]

- a) Define a PHP Array (2 Marks)
- b) Briefly discuss the **THREE** types of Arrays used in PHP (6 Marks)
- c) Explain **SIX** features of Linux Operating system (6 Marks)
- d) Write SQL statement to create a table of countries including columns: `country_id`, `country_name` and `region_id` and make sure that the combination of columns `country_id` and `region_id` will be unique (6 Marks)



QUESTION FIVE [20 MARKS]

- a) Define the term control structure as used in PHP (2 Marks)
- b) State any **FOUR** PHP control structures that you know (4 Marks)
- c) Write a PHP code using **FOR... EACH LOOP** to read and print the elements of an array (5 Marks)
- d) List **FOUR** types of software server solutions provided by PHP community under the General Public Licence (GNU) (4 Marks)
- e) State FIVE advantages of PHP (5 Marks)

