JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY

SCHOOL OF INFORMATICS AND INNOVATIVE SYSTEMS

DEPARTMENT OF INFORMATION SYSTEMS

UNIVERSITY EXAMINATION FOR THE DEGREE BACHELOR OF SCIENCE BUSINESS INFORMATION SYSTEMS

YEAR THREE: SEMESTER TWO
3rd YEAR 2nd SEMESTER 2016/2017 ACADEMIC YEAR

MAIN CAMPUS

COURSE CODE: IIT 3326

COURSE TITLE: PROGRAMMING DISTRIBUTED COMPONENTS

DATE:

TIME:

INSTRUCTIONS

1. **Answer Question 1 (Compulsory) and ANY other TWO questions**

2. **Candidates are advised not to write on the question paper**

3. **Candidates must hand in their answer booklets to the invigilator while in the examination room**

QUESTION ONE   30 MARKS

a) What is a container architecture in Java programming language   **(5 Marks)**

b) What are web forms and components of a web form?   **(5 Marks)**

c) What is serialization?   **(3 Marks)**

d) Discus the common object serialization principles in JDK platforms'   **(6 Marks)**

e) Differentiate between the following terms as used in distributed components programing

(5 Marks)

   i. Transaction integrity and load balancing

   ii. Asynchronous Messaging and synchronous Messaging

f) Differentiate between reflection and introspection in java programing   **(3 Marks)**

g) Describe I AAA technology parameter used in securing systems transactions

(3 Marks)

QUESTIONS TWO 20 MARKS

a) What should one consider before designing a Dynamic website   **(5 Marks)**
b) Create a simple valid HTML that will create the page PHP login form below **(10 Marks)**
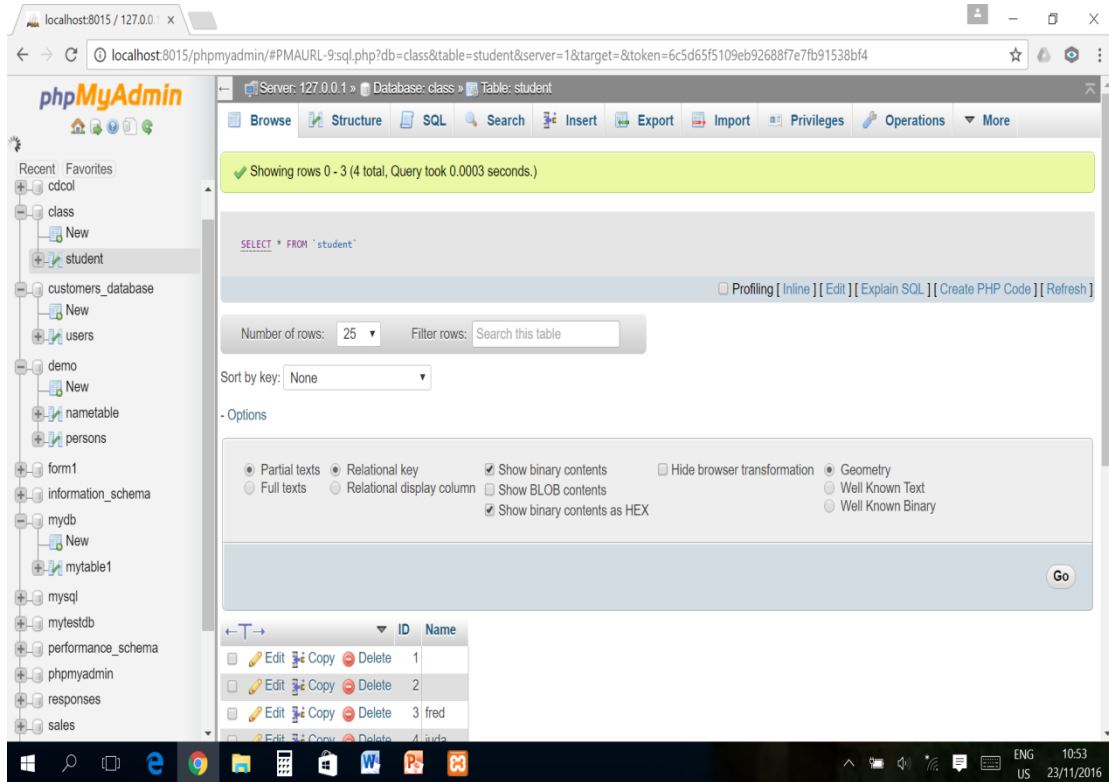
HOME PAGE	
USERNAME	
PASSWORD	
Remember Me	☐
LOGIN CLEAR	

c) What is the differences between static website and Dynamic website   (**5 Marks)**

QUESTION THREE 20 MARKS

a) PHP has a total of eight data types which we use to construct our variables, describe them with examples   (**4 Marks**)
b) Discuss what a variable scope is?   (**2 Marks**)
c) Differentiate with example between Local scope and Global scope Variable types
                                                                                                                                (**6 Marks**)
d) Describe the practical ways of how to create a MSQL database and a table with the guide of the below image   (**8 Marks**)

QUESTION FOUR 20 MARKS

a) Write a PHP script that creates the following table using for loops. Add cell padding= "3px" and cells pacing = "0px" to the table tag.   (**5 Marks**)

Sample Output:

1 * 1 = 1	1 * 2 = 2	1 * 3 = 3	1 * 4 = 4	1 * 5 = 5
2 * 1 = 2	2 * 2 = 4	2 * 3 = 6	2 * 4 = 8	2 * 5 = 10
3 * 1 = 3	3 * 2 = 6	3 * 3 = 9	3 * 4 = 12	3 * 5 = 15
4 * 1 = 4	4 * 2 = 8	4 * 3 = 12	4 * 4 = 16	4 * 5 = 20
5 * 1 = 5	5 * 2 = 10	5 * 3 = 15	5 * 4 = 20	5 * 5 = 25
6 * 1 = 6	6 * 2 = 12	6 * 3 = 18	6 * 4 = 24	6 * 5 = 30

b) Write a PHP script to display the following strings below   (**5 Marks**)
'Tomorrow I \'ll learn PHP global variables.'
'This is a bad command: del c:*.*'

c) Create a simple HTML form and accept the user name and display the name through
PHP echo statement.   (**5 Marks**)
Sample output of the HTML form:

Please input your name:

[   ] [Submit Name]

Hello

d) Write a PHP script, which will return the following components of the ur
'http://www.Google.com'   (**5 Marks**)

QUESTION FIVE 20 MARKS

a) Write a JavaScript program to calculate multiplication and division of two numbers (input
from user suing a sample form below).

1st Number : [12]
2nd Number: [10]
[Multiply] [Divide]

The Result Is :
120

          (**7 Marks**)

b) Write a JavaScript program to get the current date.
Hint use this format
mm-dd-yyyy, mm/dd/yyyy or dd-mm-yyyy, dd/mm/yyyy   (**5 Marks**)

c) Write a JavaScript program to display the current day and time in the following format.
Format to use: Today is : Friday.
Current time is : 4 PM : 50 : 22   (**5 Marks**)

d) Write a JavaScript program to calculate days left until next Christmas.   (**3 Marks**)