



UNIVERSITY OF GHANA

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B.SC INFORMATION TECHNOLOGY, FIRST SEMESTER EXAMINATIONS: 2017/

2018

DEPARTMENT OF COMPUTER SCIENCE

CSIT 405: WEB II: ADVANCED WEB DEVELOPMENT (3 CREDITS)

INSTRUCTIONS:

ANSWER ALL QUESTIONS IN SECTION A AND ANY THREE (3) OTHER

QUESTIONS IN SECTION B (I.E. A TOTAL OF 4 QUESTIONS)

ANSWER ALL QUESTIONS IN ANSWER BOOKLETS PROVIDED

TIME ALLOWED: TWO AND A HALF (2½) HOURS

SECTION A:

(This Section carries 40 marks)

ANSWER ALL QUESTIONS IN THIS SECTION

1.

The Driver's Vehicle Licensing Authority (DVLA) has decided to embrace the benefits of technology by automating all their processes through the use of a website. In the new system, customers should be able to register, login, view profile, make a request for a license, renew a licens

e, take license test and make all payment on the website. The system should also be able to show the customer a copy of the license, the date the hardcopy of the license will be ready and the nearest DVLA office to pick up the license after a successful test.

You are required to:

- a. Outline the steps you would adopt to effectively design this project?

[5 marks]

- a. Design a detailed story board for your proposed solution.

[20 marks]

- a. Design a detailed Wireframe which should include sketches of the web pages, for your proposed solution.

[15 marks]

SECTION B:

ANSWER THREE QUESTIONS FROM THIS SECTION

1.

A company from the South Africa has contacted you as a web developer to create a social networking site for them. In their MockUp, the following diagram was identified as the template for each post in the Home Page of the Social Networking Site

This template is used when a query is made to the database for all the post in the Post Table.

Implement this using HTML,CSS and PHP.

[20 marks]

1.

a. What are the four (4) ways of including files in a PHP module?

[4 marks]

a. Briefly explain the difference(s) between them.

[3 marks]

a. Briefly explain AJAX and how it works?

[7 marks]

a. Briefly explain what each of the following XMLHttpRequest methods does?

I. open (“method”, “URL”, [async, username, password])

II. send (params)

III. abort ()

IV. `getResponseHeader ("header")`

V. `setRequestHeader ("label","value")`

[6 marks]

1.

You have been approached by a school to design a School Management System that would contain all students' data, their parents contact number, courses enrolled on, etc. The entire system should be developed using PHP and MySQL database.

Write a simple PHP module that would be able to connect to the students' table in a backend MySQL database and indicate a successful connection by alerting ***"Connected Successfully"***.

Show both PHP and MySQL codes that would enable you extract the following fields with appropriate data types from the students' table

- a. First Name
- b. Last Name
- c. Date of Birth
- d. Gender
- e. Department
- f. Level

[20 marks]

1.

a. With the aid of a diagram, briefly describe the characteristics of Hierarchical navigation with regards to website design.

[8 marks]

- a. List and briefly explain the three (3) main elements in the organization of a web site?

[6 marks]

- a. List and briefly explain any four (4) very good web site design tips you are familiar with?

[6 marks]