UNIVERSITY OF BOLTON CREATIVE TECHNOLOGIES COMPUTING WITH WEBSITE DEVELOPMENT SEMESTER TWO EXAMINATIONS 2018/2019 FACILITATING E-COMMERCE MODULE NO: CPU6005

Date: Wednesday 22nd May 2019 Time: 14:00 – 16:00

<u>INSTRUCTIONS TO CANDIDATES:</u> There are <u>SIX</u> questions.

Answer **ANY FOUR** questions.

All questions carry equal marks.

Question 1

1a. In the context of Search Engine Optimisation, what is a "Landing Page" and how does a help to draw visitors into your website?

(6 marks)

1b. What can a web developer do to improve the "Reputation" of their site in the Google PageRank algorithm?

(6 marks)

1c. Weigh the benefits and pitfalls of using Google's Adwords programme to promote your web site.

(8 marks)

1d. "Social media can be an effective alternative to conventional advertising". To what extent do you agree with this statement? Give reasons for your answer.

(5 marks)

Question 2

The supplementary sheets at the end of this question paper show the home page of the Bolton Bed Centre website from Bolton town centre.

2a. Referring to the Bolton Bed Centre website, provide a detailed analysis of the home page. With reference to best practices explain how this site fails to work for users and suggest how it can be improved.

(15 marks)

2b. Without seeing the rest of the website, speculate how lower level pages can be created to close sales and win business for the company following your suggested improvements to the home page.

(10 marks)

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Question 3

3a. "The 2014 Consumer Contract Regulations create an environment that allows e-commerce to flourish".

Analyse the above statement with reference to the relevant parts of the regulations and discuss whether or not you agree with the statement.

(7 marks)

3b. Using any six of the twelve security recommendations in the PCI-DSS standard critically evaluate how they improve data security for customers.

(12 marks)

3c. Compare third-party payment systems such as PayPal with direct integration with a bank's payment processing system. Under what circumstances is it better to use each system?

(6 marks)

Question 4

4a. How can a hostile user make use of SQL Injection to compromise any website unless adequate protection is in place. You should use examples to show how SQL injection works and discuss steps you can take to prevent the attack from succeeding.

(10 marks)

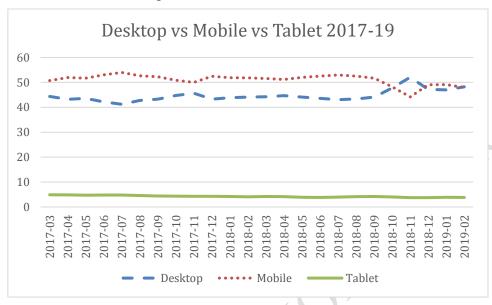
4b. Using France and Mexico as examples, how would you expand an ecommerce web operation selling physical goods into these new countries? How might your approach differ for the two countries?
 In answering this question you can assume that Brexit makes no difference to trading with France.

(15 marks)

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Question 5

5a. Examine the following chart:



What should your platform strategy be for an e-commerce website based on this data?

(6 marks)

5b. Considering the user experience differences for mobile phones in particular, how do you accommodate mobile users within an ecommerce application.

(7 marks)

5c. Steve Krug's "Don't make me think" guide to web site usability was published in 2005. Do you think the principles he stated then still apply to modern web design in the context of Electronic Commerce? Using appropriate examples give reasons for your answer.

(12 marks)

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Question 6

6a. With a successful e-commerce site, how would you manage the growth of traffic to ensure you always had enough web server capacity? You should consider both replication, functional splits and cloud solutions in your answer.

(13 marks)

6b. "Having an EV digital certificate giving a site a green address bar means that a site is much safer to use". Do you agree with this statement? Give reasons for you answer.

(4 marks)

6c. Give a detailed explanation of how the hybrid encryption used by the HTTPS protocol allows for a secure key exchange process.

(8 marks)

END OF QUESTIONS