

# KASNEB

## CICT PART II SECTION 4

### WEB DESIGN AND e-COMMERCE

#### PILOT PAPER

September 2015.

Time Allowed: 3 hours.

Answer ALL questions. Marks allocated to each question are shown at the end of the question.

#### QUESTION ONE

- (a) Explain the meaning and the role of the following in web design:
- (i) HTML. (3 marks)
  - (ii) JavaScript. (3 marks)
  - (iii) CSS. (3 marks)
- (b) Explain how the following techniques can be used to speed up loading of web pages:
- (i) Image splitting. (3 marks)
  - (ii) Caching. (3 marks)
  - (iii) Compression of scripts and styles. (3 marks)
- (c) Distinguish between HTTP and HTTPS. (2 marks)
- (Total: 20 marks)**

#### QUESTION TWO

- (a) Using code snippets, demonstrate the three types of web page styling. (6 marks)
- (b) Distinguish between the following validation techniques as used in web applications:
- (i) Client side validation. (2 marks)
  - (ii) Server side validation. (2 marks)
- (c) Using inline scripting, create a web page with a title "show-date", a heading "show date" and a button that can be clicked to show the current date and time. (10 marks)
- (Total: 20 marks)**

#### QUESTION THREE

- (a) (i) Distinguish between "motion tweening" and "shape tweening". (4 marks)
- (ii) Describe the acronym AJAX and explain how it is used in web development. (4 marks)
- (b) (i) Describe the term "payment processor" in the context of e-commerce. (2 marks)
- (ii) Describe four ways in which internet fraud could be mitigated by a payment processor. (8 marks)
- (c) Explain the term "infrastructure as a service". (2 marks)
- (Total: 20 marks)**

**QUESTION FOUR**

(a) Explain the meaning of the following internet threats, describing how each threat can be prevented:

- (i) XSS. (4 marks)
- (ii) CSRF. (4 marks)

(b) Using examples, explain the following e-commerce business models:

- (i) B2B. (2 marks)
- (ii) G2B. (2 marks)
- (iii) C2B. (2 marks)

(c) Examine one advantage and one disadvantage of each of the following web hosting plans:

- (i) Free hosting. (2 marks)
- (ii) Shared (virtual) hosting. (2 marks)
- (iii) Collocated hosting. (2 marks)

**(Total: 20 marks)**

**QUESTION FIVE**

The illustration below is a web page extract that shows an invoice:

INVOICE			
Item No.	Item. Qty.	Price	Total
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
		VAT	<input type="text"/>
		Total	<input type="text"/>

**Required:**

- (i) Generate HTML to create the form. (10 marks)
  - (ii) Illustrate, using suitable JavaScript code, an extract script to multiply the item quantity and the item price, and put the result in the total cells. (10 marks)
- (Total: 20 marks)**
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