UTHM
Universiti Tun Hussein Onn Malaysia

UNIVERSITI TUN HUSSEIN ONN MALAYSIA

FINAL EXAMINATION
SEMESTER II
SESSION 2018/2019

COURSE NAME	:	FUNDAMENTALS OF WEB TECHNOLOGY
COURSE CODE	:	BIW 10103
PROGRAMME CODE	:	BIW
EXAMINATION DATE	:	JUNE / JULY 2019
DURATION	:	3 HOURS
INSTRUCTION	:	ANSWER **ALL** QUESTIONS

THIS QUESTION PAPER CONSISTS OF **SEVEN (7)** PAGES

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SECTION A
Instruction : Answer ALL questions.

Q1   What allows users to rent processing, storage, networking and other fundamental computing resources for all purposes?

      A.   IaaS
      B.   SaaS
      C.   PaaS
      D.   XaaS

      (1 mark)

Q2   What provides on-demand network access to a shared pool of configurable computing resources that can be rapidly provisioned and released?

      A.   Metered computing
      B.   Grid computing
      C.   Cloud computing
      D.   Utility computing

      (1 mark)

Q3   What allows users to run existing online applications?

      A.   IaaS
      B.   SaaS
      C.   PaaS
      D.   EaaS

      (1 mark)

Q4   What allows users to create their own cloud applications using supplier-specific tools and languages?

      A.   IaaS
      B.   EaaS
      C.   SaaS
      D.   PaaS

      (1 mark)

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SECTION B
Instruction : Answer ALL questions.

Q5 Based on the following given URL,

`http://www.myRecipe.com.my/cuisine/rice/chickenrice.html`

(a) Provide the HTTP/1.1 request message structure send by an HTTP client to a server.

(b) Provide the HTTP/1.1 response message structure send back by the server.

(6 marks)

Q6 Based on the following given domain name, outline in detail the **SIX** steps on how Domain Name System (DNS) server works when enter key is hit to the browser.

`http://www.yahoo.com`

(6 marks)

Q7 (a) Provide the shorten IPv6 addresses of following:

(i) `FE80:CD00:0000:0CDE:1257:0000:211E:729C`

(ii) `0000:0000:0000:0000:0000:0000:C0A8:6420`

(iii) `2041:0000:140F:0000:0000:0000:875B:131B`

(iv) `2364:0000:F150::985D:25CB`

(8 marks)

(b) Give an example scenario of why using proxy server can improve performance when making requests to web servers and response to web clients.

(4 marks)

Q8 (a) How to prevent attackers from stealing data like username or password from network during data transmission?

(b) How to transport collected sensitive data online, such as credit card information or user ID information to the web server securely?

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(c) Suggest any **TWO (2)** steps on how to secure a web server.

                    (6 marks)

Q9 Identify the similarity and differences between virus, worm and trojan horse.

                    (4 marks)

Q10 Consider the following given form in **Figure Q10**:

Figure Q10

(a) Outline the full HTML codes to generate the login page in **Figure Q10**. The image file is `uthm.png` and located in `resources` folder with `height=100` and `width=260`.

                    (8 marks)

(b) Using `username = WEBTECH` and `password = BIW10103`, provide the HTTP/1.1 request message structure send by the HTTP client to the server.

                    (5 marks)

(c) Explain on how to secure the transaction after the SEND button is clicked in **Figure Q10**.

                    (3 marks)

(d) How to identify the secure transaction from the URL?

                    (2 marks)

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Q11 (a) Based on **Figure Q11(a)**, outline the full HTML codes to generate a linking to a specific part of the same page.

Film-Making Terms

Arc Shot
Interlude
Prologue

Arc Shot

A shot in which the subject is photographed by an encircling or moving camera

Interlude

A brief, intervening film scene or sequence, not specifically tied to the plot, that appears within a film

Prologue

A speech, preface, introduction, or brief scene preceding the the main action or plot of a film; contrast to epilogue

Figure Q11(a)

(7 marks)

(b) Based on **Figure Q11(b)**, outline the full HTML codes to generate a linking to other sites. Use the following URL.

```
http://www.um.edu.my
http://www.usm.my
http://www.ukm.my
http://www.upm.edu.my
http://www.utm.my
```

Universities in Malaysia:

- UNIVERSITI MALAYA (UM)
- UNIVERSITI SAINS MALAYSIA (USM)
- UNIVERSITI KEBANGSAAN MALAYSIA (UKM)
- UNIVERSITI PUTRA MALAYSIA (UPM)
- UNIVERSITI TEKNOLOGI MALAYSIA (UTM)

Figure Q11(b)

(6 marks)

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(c)   Based on **Figure Q11(c)**, outline the full HTML codes to generate a linking to other pages on the same site.
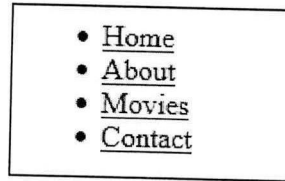
- Home
- About
- Movies
- Contact

Figure Q11(c)

(4 marks)

Q12   (a)   Based on **Figure Q12(a)**, outline the full HTML codes to generate a webpage as in the given format.

My HTML Expenses Data Table

	Month	Rent	Utilities		Groceries	Eating Out	Entertainment
Semester 1	September	RM1500	RM100	RM50	RM350	RM100	RM50
	October	RM1500	RM100	RM50	RM350	RM100	RM50
	November	RM1500	RM100	RM50	RM350	RM100	RM50
	December	RM1500	RM100	RM50	RM350	RM100	RM50

Figure Q12(a)

(12 marks)

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(b)   Based on **Figure Q12(b)**, outline the full HTML codes to generate a webpage as in the given format. There are seven days option in the dropdown list.

My HTML Data Entry Form

Enter your name:

Enter your password:

Programme:
BIP BIS BIW BIM

Which year:
Year 1 Year 2 Year 3 Year 4

Subject registered:
BIC101 BIC102 BIC103 BIC104

Select Day: Sunday

Enter your special request here...

SEND CLEAR

Figure Q12(b)

(15 marks)

- END OF QUESTIONS -

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