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Universiti Tun Hussein Onn Malaysia

UNIVERSITI TUN HUSSEIN ONN MALAYSIA

**FINAL EXAMINATION
SEMESTER II
SESSION 2014/2015**

COURSE NAME : FUNDAMENTALS OF WEB
TECHNOLOGY
COURSE CODE : BIW 10103
PROGRAMME : 1 BIW
EXAMINATION DATE : JUNE 2015 / JULY 2015
DURATION : 3 HOURS
INSTRUCTION : ANSWER ALL QUESTIONS

THIS QUESTION PAPER CONSISTS OF **THREE (3)** PAGES

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- Q1** (a) Describe logical topology in a computer network. (2 marks)
- (b) State **FOUR (4)** types of Local Area Network (LAN) technology. (4 marks)
- (c) Discuss **FOUR (4)** benefits of computer network usage. (8 marks)
- (d) State and examine **TWO (2)** important factors that need to be taken into consideration before deploying Wi-Fi technology. (6 marks)

Q2 Analyze and fill an appropriate answer in each blank for the following **Table 1**:

Table 1: IP Addresses

Host IP Address	Address Class	Network Address	Network Broadcast Address	Default Subnet Mask
10.1.1.1				
172.16.3.1				
129.5.6.7				
192.168.14.15				
162.254.3.6				

(20 marks)

- Q3** (a) Describe **TWO (2)** main purposes of using Domain Name System (DNS) services. (4 marks)

- (b) Consider the following scenario:

Ameen's PC is configured to use a DNS. He opens a web browser and he type www.example.com in browser's URL address field. The next IP packet that the PC sends is to the web server.

State whether you agree with the flow of IP packets in the scenario above. Justify your answer.

(6 marks)

- (c) Al Ameen browses a website, www.uthm.edu.my from his Personal Computer (PC). By using a diagram, illustrate and discuss on how the Transmission Control Protocol (TCP) connection processes happen between his PC to the particular web server.

(10 marks)

- Q4** (a) Outline and discuss **TWO (2)** factors on how Network Management System (NMS) can help web administrators to manage the network efficiently.

(4 marks)

- (b) Examine **TWO (2)** advantages on how cloud computing can assist enterprise to improve web implementation.

(4 marks)

- (c) Clasify and discuss **FOUR (4)** elements of Uniform Resource Locator (URL), http://www.islam.gov.my.

(12 marks)

- Q5** Propose solutions about the following security matters to secure web environment.

- (a) Technology safeguards.

(10 marks)

- (b) Human-based safeguards.

(10 marks)

- END OF QUESTION -