



UNIVERSITI TUN HUSSEIN ONN MALAYSIA

**FINAL EXAMINATION
SEMESTER I
SESSION 2018/2019**

COURSE NAME : INTRODUCTION TO INFORMATION TECHNOLOGY
COURSE CODE : BIT 10203
PROGRAMME CODE : BIT
EXAMINATION DATE : DECEMBER 2018 / JANUARY 2019
DURATION : 3 HOURS
INSTRUCTION : ANSWER ALL QUESTIONS

THIS QUESTION PAPER CONSISTS OF SEVEN (7) PAGES

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SECTION A

Q1 State whether each of the following statement is **TRUE** or **FALSE**.

- (a) Information System is a collection of people, procedures, software, hardware and data.
- (b) One type of Computer-Based Information Systems is Embedded Information System.
- (c) Data Flow Diagram (DFD) and CASE tools can be used to build system prototypes.
- (d) A combination of multiple Database Management Systems (DBMSs) may provide data for a Decision Support System (DSS).
- (e) “.edu” is a top-level domain for government agencies.
- (f) All information from the World Wide Web is reliable, thus can be trusted.
- (g) In a star topology network, data packets travel around in one direction.
- (h) Telecommuters are authorized to have access to their companies Intranet.
- (i) Internet Explorer and Google Chrome are examples of web browser.
- (j) Green computing involves reducing the electricity and environmental waste while using a computer.

(10 marks)

SECTION B

Instruction: Choose the BEST answer for each of the following questions.

- Q2** Which of the following is a classification of problem?
- A. Structured problem
 - B. Semi-structured problem
 - C. Unstructured problem
 - D. All of the above
- (1 mark)
- Q3** Which of the following is **NOT** an industry standard tool for scheduling and project management?
- A. Gantt Chart
 - B. Data Flow Diagram (DFD)
 - C. Work Breakdown Structure (WBS)
 - D. All of the above
- (1 mark)
- Q4** Which of the following is **NOT** the output of Management Information System?
- A. Error reports
 - B. Summary reports
 - C. Demand reports
 - D. Annual reports
- (1 mark)
- Q5** “The end users were asked to totally stop using the old system and shift to the new system”. This statement refers to _____.
- A. phased implementation
 - B. direct implementation
 - C. parallel implementation
 - D. pilot implementation
- (1 mark)
- Q6** An expert system is **NOT** capable of the following:
- A. Refining their own knowledge
 - B. Producing accurate output for inadequate knowledge base
 - C. Substituting human decision makers
 - D. All of the above
- (1 mark)

- Q7** Which of the following is a responsibility of communication protocols?
- A. Checking for transmission errors
 - B. Acknowledging receipt of transmitted data
 - C. Dividing messages into packets
 - D. All of the above
- (1 mark)
- Q8** The responsibility of the World Wide Web Consortium (W3C) includes the following:
- A. Oversees research, set standards and guidelines of the Internet
 - B. Controls the Internet
 - C. Creates new top-level domain
 - D. Protects the Internet from cybercrimes
- (1 mark)
- Q9** What is the term used to describe “www.uthm.edu.my”?
- A. Top-level domain
 - B. Domain name
 - C. IP address
 - D. World Wide Web
- (1 mark)
- Q10** Ali is a student at Universiti Tun Hussein Onn Malaysia (UTHM). He wants to communicate with his parents in Turkey via email. Which type of network is involved in the communication?
- A. Local Area Network (LAN)
 - B. Metropolitan Area Network (MAN)
 - C. Wide Area Network (WAN)
 - D. Home Area Network (HAN)
- (1 mark)
- Q11** Web sites use cookies to perform the following activity:
- A. Monitor the viewed web pages of the users
 - B. Collect information for advertisement banners
 - C. Gather personal information
 - D. All of the above
- (1 mark)

SECTION C

Q12 (a) Describe the following terms:

- (i) Modulate
- (ii) Demodulate

(4 marks)

(b) Explain **FIVE (5)** advantages of Local Area Network (LAN) compared to standalone computers.

(10 marks)

(c) Describe **TWO (2)** differences between Wi-Fi and Bluetooth technologies and give **ONE (1)** example of where you would expect to find each in use.

(6 marks)

Q13 (a) UTHM is in the process to implement a new Attendance System for students.

(i) Name **THREE (3)** major stakeholders for the project.

(3 marks)

(ii) State an established methodology to ensure the project is successful.

(1 mark)

(iii) Apply the methodology in question **Q13(a)(ii)** for the project and discuss **ALL** the steps needed, each with specific action.

(12 marks)

(b) Provide **ONE (1)** major characteristic for each of the system category; Transaction Processing Systems (TPS), Management Information Systems (MIS), Decision Support Systems (DSS) and Expert Systems (ES).

(4 marks)

- Q14 (a)** Figure Q14 shows two addresses. Analyze the figure and answer the following questions.

1. https://www.msu.com.my/info 2. g.nes@msu.com.my

Figure Q14

- (i) State the domain name of those addresses (1 mark)
- (ii) Categorize each of the addresses (2 marks)
- (iii) What is the top-level domain of both addresses, and which entity does it represent? (2 marks)
- (iv) Discuss **ONE (1)** reason on why a domain name should be translated into its corresponding Internet Protocol (IP) address prior to packet routing. (2 marks)
- (v) Who manages the domain names to ensure they are unique? (1 mark)
- (b) Give **THREE (3)** differences between analog signal and digital signal. (6 marks)
- (c) Illustrate a network design for a small office with the following requirements: (6 marks)
- Star topology
 - Six computers
 - One printer
 - Internet connection for all computers



- Q15** Figure Q15 shows a comment by The Norwegian Data Inspectorate on data privacy issues of a well-known social networking site, Facebook. Analyze the comment and answer the following questions.

Facebook allows third parties access to their platform to provide additional services. Examples of such services are gaming, document collaboration, social reading, etc. Several of these services seem to be able to change the user's privacy settings, based on the acceptance of an agreement between the user and the third party providing the service.

The Norwegian Data Inspectorate.

Figure Q15

- (a) Outline **FIVE (5)** steps to protect your data privacy on Facebook or any other social networking sites.
(10 marks)
- (b) The World Wide Web (WWW) contains some extremely valuable, high-quality information sources and contains some very unreliable, biased sources of information. Discuss **FIVE (5)** criteria that can be used to evaluate the reliability of a website's contents with some examples.
(10 marks)

- END OF QUESTIONS -

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