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Universiti Tun Hussein Onn Malaysia

UNIVERSITI TUN HUSSEIN ONN MALAYSIA

**FINAL EXAMINATION
SEMESTER II
SESSION 2015/2016**

COURSE NAME : MANAGEMENT INFORMATION SYSTEM
COURSE CODE : BIT 30803
PROGRAMME CODE : BIT
EXAMINATION DATE : JUNE / JULY 2016
DURATION : 3 HOURS
INSTRUCTION : ANSWER ALL QUESTIONS

THIS QUESTION PAPER CONSISTS OF FOUR (4) PAGES

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- Q1** You have been hired to oversee a project to select the best admission software for a college.
- (a) Analyze **FOUR (4)** key factors to consider when deciding whether to make or buy a new information system. Develop a table that compares the make vs. buy decision using these factors. (8 marks)
- (b) Suggest **THREE (3)** features of the system that would be most important to the college administrators. (6 marks)
- Q2** Assume that you are the owner of a landscaping firm serving hundreds of customer in Johor.
- (a) Identify **THREE (3)** customer information that your company would like to capture. (6 marks)
- (b) According to the answer in **Q2(a)**
- (i) identify **TWO (2)** ways to capture the information. (5 marks)
- (ii) analyze **TWO (2)** ways on how the information can be used to provide service and increase revenue (6 marks)
- Q3** Electronic and mobile commerce have transformed manner in which companies interact with their suppliers, customers, government agencies, and other business partners.
- (a) Differentiate between B2B, B2C and C2C e-commerce. (6 marks)
- (b) Explain **THREE (3)** key challenges that an organization must overcome to convert its business processes from the traditional form to e-commerce processes. (6 marks)

- (c) By giving an example of a m-mobile application that you have used, evaluate the application based on **THREE (3)** criterias of a successful m-commerce websites.
(6 marks)
- (d) Explain the reason why many manufacturers and retailers outsourcing the pyhysical logistics of delivering merchandise to consumers.
(3 marks)
- (e) In your opinion, what is the biggest barrier to wide-scale adoption of m-commerce by consumers?
(3 marks)
- Q4** (a) By giving examples, differentiate between a programmed decision and a nonprogrammed decision.
(6 marks)
- (b) Explain the relation between Management Information System (MIS) and other type of information systems in terms of input and output.
(4 marks)
- (c) Discuss how social networking sites can be used in a Decision Support System (DSS).
(5 marks)
- (d) Describe **TWO (2)** conditions when the development of an Expert System likely to be worth the effort.
(5 marks)

Q5 Questions **Q5(a)**- **Q5(e)** is based on **Figure Q5**.

Jacksonville Electric Authority (JEA) supplies electricity, water, and sewer services to businesses and residents in Jacksonville, Florida.

Making sure that its wells are producing enough water to meet customer demand is a tricky and sometimes wasteful process. Reservoirs accommodate anticipated demand, often overcompensating to make sure they have enough water to accommodate an unusually high demand. When too much water is kept on hand, the quality of the water decreases (due to salt intrusion) and the health of the well decreases (due to inactivity).

Recently, JEA purchased an AI-based software and created a neural network to predict hourly consumption of water over a given time frame. The neural network is trained using previous water-usage data. The consumption forecasts created by the neural net are fed into expert system. The expert system allocates the total anticipated demand to the 44 water treatment plants and well pumps.

The system has resulted in better use of reservoir capacity by filling reservoirs only to levels required with each hour of operation.

Figure Q5

- (a) Describe **TWO (2)** speciality areas of artificial intelligence which are mentioned in **Figure Q5**. (4marks)
- (b) Examine the problem face by JEA which required the use of an expert system and automation. (5marks)
- (c) Explain **THREE (3)** benefits of the new automated system. (6 marks)
- (d) Analyze the functions of each components in the JEA's system. (6 marks)
- (e) Give **ONE (1)** example of other industries that might benefit from similar system. (2 marks)

- END OF QUESTION -

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