UNIVERSITI TUN HUSSEIN ONN MALAYSIA

FINAL EXAMINATION
SEMESTER II
SESSION 2012/2013

COURSE NAME	:	DECISION SUPPORT SYSTEM
COURSE CODE	:	BIT 30303
PROGRAMME	:	2 BIT / 3 BIT
DATE	:	JUNE 2013
DURATION	:	2 HOURS AND 30 MINUTES
INSTRUCTION	:	ANSWER **ALL** QUESTIONS.

THIS QUESTION PAPER CONSISTS OF **FOUR (4)** PAGES

Q1   Decision Support System (DSS) is defined as "A conceptual framework for a process of supporting <u>managerial decision making</u>, usually by <u>modeling problems</u> and employing for solution analysis."

(a)   List **FIVE (5)** steps involved in the managerial decision making

(5 marks)

(b)   Define briefly **THREE (3)** common types of model in DSS analysis.

(6 marks)

(c)   Discuss the importance of decision styles.

(4 marks)

Q2   (a)   List **THREE (3)** fundamental components of a problem structure.

(3 marks)

(b)   Describe **TWO (2)** methods of modeling a decision structure with an aid of diagram.

(6 marks)

(c)   Given the following scenario:

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Ahmad is planning to pursue his degree in UTHM. He has to decide
which courses to apply.
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Use decision structure modeling for the above scenario based on your assumption.

(6 marks)

Q3   (a)   Describe the basic component of a DSS.

(4 marks)

(b)   Describe **FOUR (4)** factors that are related to the quality of the user interface.

(4 marks)

(c)   Discuss the difficulties of model selection for DSS.

(7 marks)

Q4   Given the following scenario:

Sunny Bakery is a small grocery store, provides customers' need and concerned with the financial viability of the store. Bread is one of their major daily products. Their problem is to determine how much bread to stock each day. They decide to explore a few possible approaches to solving the problem.

(a)   Describe possible approaches to solve the given problem.

(5 marks)

(b)   Design the decision making process using Simon's model.

(10 marks)

Q5   Given the following case study:

Maju Entreprise is leading clothing with over 100 departmental stores in Malaysia. The departmental stores have to reconsider the best way to secure and maintain a competitive advantage. With increasing competition, they are planning on using a sophisticated decision support system. The existing system in the company handles large amounts of data, however, inadequate data access and analysis capabilities prevented managers from exploiting the wealth of information buried in their business transaction.

(a)   Identify **THREE (3)** risks in implementing a DSS project in the company.

(6 marks)

(b)   Explain how the company is able to gain competitive advantage against its competitors by the new DSS.

(6 marks)

(c)   Give **THREE (3)** decision situations which can be supported by the new decision support system.

(8 marks)

Q6   (a)   Define the term Group Decision Support System (GDSS).

(4 marks)

(b)   Describe **THREE (3)** examples of GDSS products that give indirect support to decision making.

(6 marks)

(c)   In the following case study:

> In ABC Company, each model builds prototypes that cost about RM3.8 Million each and tests how they react to a frontal crash. Designing a new car is a complex and lengthy process. ABC hardly makes improvements and tests their products. Even as late as the 2005, ABC crashed as many as 70 prototype versions of each new model. The information regarding a new design collected from these crashes and other tests has to be shared among approximately 11,000 designers and engineers in hundreds of divisions and departments located all over the world. In addition, ABC must communicate and collaborate with the design engineers of the more than 1,000 key suppliers. All this communication and collaboration slowed the decision process and increased costs. It took over four years to get new model to market and the new car often looked stale on arrival because public tastes had changed during the course of development.

Explain why did the project take so long?

(10 marks)

- **END OF QUESTION** -