

٣ طيبان

نظم دعم اتخاذ القرار



Tanta University
Final Term exam
Third year

Decision Support Systems June 2013

Faculty of Engineering
Computers and Automatic control
Time two hours

Answer all questions

Question One

- 1- Compare decision making versus problem solving. Determine whether or not it makes sense to distinguish the two from one another.
- 2- Define the term Manger? Are you a manger or not?
- 3- Define the term problem? What are the problem characteristics?
- 4- Explain the difference between the effective decision and efficient decisions?
- 5- 5 - If you are a manger, How would you measure the productivity of
A salesperson - A professor - A student

Question Two

1- A furniture manufacturer is deciding on tables and chairs production for the upcoming quarter. Each chair sold nets the manufacturer \$20; each table makes \$30 in profit. The manufacture has a supply of 500 board feet each week and 100 labor hours to allocate. Each chair takes 10 board feet of wood; each table takes 20 board feet. Each chair requires 4 labor hours; each table takes 2 hours of labor. The manufacturer wants to produce no more than 40 chairs and no more than 20 tables. What should the manufacturer do?

- Give the Decision Variables, constrains and the algebraic formulation of the above system, finally find the optimal solution as LP problem? 1

2- You are about to buy a house. Follow Simon's phase model and describe the activities at each steps. Explain the support given to decision makers in each phase of decision process

3- In the well known financial present value model consider the following case study: The present value of payment of 100 000 EP, assume a 10 percent interest rate. Calculate the value after those five years.

Question Three

1. What types of decisions are most likely structured and well-defined?
 - a. Strategic Decisions
 - b. Tactical Decisions
 - c. Operational Decisions
 - d. Enterprise Decisions
2. Inventory control decisions are most likely
 - a. Unstructured and infrequently made
 - b. Structured and routine
 - c. Ad hoc and unscheduled
 - d. Highly level and strategic
3. Business Intelligence technologies include
 - a. Decision Support Systems
 - b. Data Mining Systems
 - c. Knowledge Management Systems
 - d. Online Analytical Processing Systems
 - e. All of the above
4. Online Analytical Processing involves bottom-up discovery driven data analysis.
 - a. True
 - b. False. (this is the definition of data mining)
5. Applications of Business Intelligence include

- a. Discovering common characteristics of customers who buy the same products from your company.
 - b. Predicting which customers are likely to leave your company and go to a competitor.
 - c. Identifying which prospects should be included in a mailing list to obtain the highest response rate.
 - d. All of the above
6. Top-down, query-driven analysis of multi-dimensional data is called Online Analytical Processing (OLAP).
7. Which of the following is not typically part of a decision support system
- a. Report generator, the other 4 are part of the definition of a DSS
 - b. Analytical models
 - c. Specialized databases
 - d. A decision maker's own insights and judgments
 - e. An interactive, computer-based modeling process
8. A flat organizational structure has less middle managers.
- a. True
 - b. False
9. The primary goal of a Decision Support System is to fully automate the decision-making process
- a. True
 - b. False, people/human decision making is very important in DSS
10. When compared to Expert Systems, Decision Support Systems are more suited for unstructured decisions.
- a. True
 - b. False

Question Four

1. Briefly describe transaction processing system (TPS), DSS, MIS, EIS, Expert System (ES), GDSS, and knowledge management system (KMS). Compare them on five dimensions.
2. Show the various components of a Decision Support System (DSS) in the form of a diagram. Describe each component briefly. Describe each component in greater detail.
3. Describe various decision making approaches.
4. Describe decision problems under certainty, uncertainty and risk. You should be able to formulate and solve such problems.

Thank You Dr. Hatem 2013

