IV B.Tech II Semester Supplimentary Examinations, May 2008 DECISION SUPPORT SYSTEMS (Common to Computer Science & Engineering and Information Technology)

Time: 3 hours

Max Marks: 80

Answer any FIVE Questions All Questions carry equal marks

- 1. List the stages of Kepner Tregoe decision making process and describe each in a line or two with the help of flowchart. [16]
- 2. State how computers affect each of the eleven factors that define information quality? [16]
- 3. (a) What are the major DSS hardware environments?
 - (b) Describe the types of hardware environments used for DSS. [8+8]
- 4. (a) Explain the principles used in modeling
 - (b) Explain dynamic physical model and static mathematical model with an example. [8+8]
- 5. (a) Describe an electronic meeting system. What types of decision-making tasks might it be useful?
 - (b) Explain the technologies of GDSS. [8+8]
- 6. Consider a simple expert system that can follow three rules:
 - (a) Rule 1) If order can be satisfied within a normal work schedule, then the factory should operate 40 Hours next week.
 - (b) Rule 2) If order cannot satisfied within a normal work schedule and overtime has not been scheduled, then schedule overtime work.
 - (c) Rule 3) If order cannot satisfied within a normal work schedule and overtime has been scheduled, then notify customers that order will be delayed. Develop VP-Expert form of simple knowledge base. [16]
- 7. (a) Describe four kinds of data that data warehouse use.
 - (b) List the stages involved in getting a data into data warehouse and explain each stage. [8+8]
- 8. Show how DSS, ES, EIS, GDSS and data warehouse systems relate to each other. [16]

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- 1. Explain the Kepner-Tregoe decision-making method with an example. [16]
- 2. (a) What is a model? What are three reasons to use computer models to support decision-making?
 - (b) Consider your DSS course as a system. What is its purpose? What are its inputs? Its outputs? Its major processes? [8+8]
- 3. (a) Explain the characteristics of DSS.
 - (b) Discuss the three level technology of DSS with block diagram. [8+8]
- 4. (a) Describe at least six activities that are part of the implementation phase.
 - (b) Explain the basic types of model and its classification. [8+8]
- 5. Draw the diagram of McGraths circumplex and explain various tasks types.

[16]

- 6. Consider a simple expert system that can follow three rules:
 - (a) Rule 1) If order can be satisfied within a normal work schedule, then the factory should operate 40 Hours next week.
 - (b) Rule 2) If order cannot satisfied within a normal work schedule and overtime has not been scheduled, then schedule overtime work.
 - (c) Rule 3) If order cannot satisfied within a normal work schedule and overtime has been scheduled, then notify customers that order will be delayed. Develop VP-Expert form of simple knowledge base. [16]
- 7. (a) Describe four kinds of data that data warehouse use.
 - (b) List the stages involved in getting a data into data warehouse and explain each stage. [8+8]
- 8. (a) List the various stages of data warehousing project.
 - (b) Justify a data warehouse interms of both tangible and intangible benefits. [16]

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- 1. (a) What is a Decision Support System?
 - (b) What are Seven Characteristics of Decision Support Systems? Explain which are common and which are optional? [8+8]
- 2. List the eleven factors that defines information quality and explain each. [16]
- 3. What are the major specialized software packages used to assist DSS development and explain each? [16]
- 4. Define a corporate model and explain major parts with the help of block diagram. [16]
- 5. (a) Explain the characteristics and components of GDSS.
 - (b) Explain the value analysis and cost benefit analysis relating to GDSS. [8+8]
- 6. State at least ten advantages of expert system over human decision makers, and five disadvantages they have versus human decision maker. [16]
- 7. (a) Describe four kinds of data that data warehouse use.
 - (b) List the stages involved in getting a data into data warehouse and explain each stage. [8+8]
- 8. What is the job of the project leader and describe any two types of charts that project managers / leader use? [16]

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[16]

Answer any FIVE Questions All Questions carry equal marks ****

- 1. (a) Define the three elements of a decision.
 - (b) Describe the phases that every decision goes through. [8+8]
- 2. (a) What is a model? What are three reasons to use computer models to support decision-making?
 - (b) Consider your DSS course as a system. What is its purpose? What are its inputs? Its outputs? Its major processes? [8+8]

3. Explain the following terms

- (a) Fat clients
- (b) Thin clients
- (c) Network computers
- (d) An Intranet

4. Draw the cobweb model for the following market. [16]

 $D = 12.4 \quad 1.2 P$ $S = 8.0 \quad 0.6 P_{-1}$

 $P_0 = 1.0$

- 5. Define GDSS. What are the group tasks and task types? Explain each. [16]
- 6. (a) Define Artificial Intelligence and describe the five major topics of AI work.
 - (b) Explain what expert systems are and how they work including their major Components. [8+8]
- 7. (a) Explain how a relational database can be organized for a data warehouse.
 - (b) Explain the concept of a multi dimensional database and why they are well suited to data warehouse. [8+8]
- 8. (a) List and describe briefly the eight stages of any information system project.
 - (b) What are the four types of data that the data warehouse architecture must specify?

[8+8]
