2008

COMPUTER SCIENCE

(*Management Support System*)

PAPER—CS/MCA/2405

Full Marks : 70

Time : 3 hours

Answer **Q. No. 1** and any **six** questions from the rest

The figures in the right-hand margin indicate marks

Candidates are required to give their answers in their own words as far as practicable

Illustrate the answers wherever necessary

1. Typically, data on a university campus are stored in different physical locations for different purposes. For example, the registar's office, the individual departmental offices, and the staff benefits office may maintain separate unintegrated databases with student, faculty and staff records.

   (*a*) Explain what problems can occur in obtaining data to support complex decisions.

(b) Explain how a data warehouse might help to solve these problems. 5 + 5

2. Write short notes on (any *two*) : 5 × 2

(i) Ad hoc DSS and Institutional DSS

(ii) Report Programming Generator

(iii) What-if analysis and goal-seeking analysis

(iv) Stand alone package and integrated package.

3. In any decision-making framework, how are the problems classified. Define each type of problem with examples. What are the different types of management support systems used to solve these problems ? 3 + 5 + 2

4. What are the main functions of DBMS ? Compare between network database and hirarchical database systems. 5 + 5

5. Differentiate between normative and descriptive models. What is the role of simulation process in model management ? How a problem under uncertainty can be transformed into one under certainty or risk ? 4 + 4 + 2

(*Continued*)

6. What are the assumptions and characteristics of linear programming? What is the main difference between Linear Programming and Heuristic Programming?   6 + 4

7. Define GDSS. What are the main parts of GDSS? Explain how 'Decision Room' works.   3 + 2 + 5

8. List the fundamental phases and minor steps of the traditional SDLC. Describe how the phases of prototyping is related to those of the traditional SDLC.   5 + 5

9. What do you mean by DSS generator? 'Selection of DSS tools, or generator is a complex process.' Explain.   4 + 6