M.E. First Semester (Mechanical Engineering (CAD/CAM)) (F.T.) (CBS)

13488 : Elective-I : Management Information Systems : 1 MCC 5

P. Pages : 2 **AW - 3734**

Time : Three Hours * 1048 * Max. Marks : 80

Notes : 1. All question marks as indicated.
2. Answer **three** question from Section A and **three** question from Section B.
3. Due credit will be given to neatness and adequate dimensions.
4. Assume suitable data wherever necessary.
5. Illustrate your answer necessary with the help of neat sketches.
6. Use of pen Blue/Black ink/refill only for writing the answer book.

SECTION – A

1. a) Explain the importance of Management Information System (MIS) in the service industry. **7**

b) "Before the full scale MIS development plan is undertaken, it is better to study and improve rules, policies, procedures & practices." Explain. **7**

2. a) What is material management? Explain how MIS can be used in material management. **7**

b) Define 'data' and 'information'. Discuss the difference between these terms with the help of example. **6**

3. a) What are the types of business strategies? **7**

b) Difference between product management & service management. **6**

4. a) What is personal management? Explain how MIS can be used in personal Management. **7**

b) Explain the use of Management Information System (MIS) for management of equipment resource. **6**

5. a) Explain why does MIS supports for design making include both computer and non – computer processing. **6**

b) What category of information does an MIS deal with? What are the characteristics of information likely to be useful at the strategic level? **7**

SECTION – B

6. a) Explain the core role and purpose of ERR, SCM and CRM solutions in management of E-enterprise. **7**

b) Explain the various aspects of data life cycle that are important in information system. **7**

7. a) What is purpose of DSS in MIS? What types of DSS can be embedded in the MIS application? **7**

b) Business rules, formula, algorithm and heuristics are extensively used in DSS. Explain these terms in view of MIS. **6**

8. Describe one subsystem of production planning and illustrate the same with flow diagram. Give its information requirements. **13**

9. a) What is Decision Making and what are Simon's three phases? **7**

   b) What are three major classes of Decision? Describe in brief. **6**

10. A manufacturing company needs to expand its business. It has two alternatives to increase the maximum production capacity.
    i) Expansion at a cost of Rs. 8 million or
    ii) Modernization at a cost of Rs. 5 million.
    Both approaches required same time for implementation. Management believes that, probab lity of high demand is 0.35 and probability of 'moderate demand' considered to be more than 'high demand'. If the demand is high, expansion would require additional Rs. 12 million & modernization only at an additional Rs. 6 million. But if the demand is moderate these figures would be 7 million for expansion and 5 million for modernization.

    a) Calculate conditional profit in relation to various action and outcome combinations and states of nature. **5**

    b) If company wishes to maximize its expected monetary value. Then should it modernize or expand? **5**

    c) Calculate EVPI. **3**

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