

Reg. No.



MANIPAL INSTITUTE OF TECHNOLOGY
MANIPAL

A Constituent Institute of Manipal University

II SEMESTER MCA

END SEMESTER EXAMINATIONS, APR/MAY 2017

SUBJECT: MANAGEMENT INFORMATION SYSTEM [MCA 5005]

**REVISED CREDIT SYSTEM
(25/04/2017)**

Time: 3 Hours

MAX. MARKS: 50

Instructions to Candidates:

- ❖ Answer **ALL** the questions.
- ❖ Missing data may be suitable assumed.

- | | | |
|------------|--|----------|
| 1A. | Consider the following table look out for any repeating groups, eliminate transitive dependencies if any and convert the table into 3NF.
(course-code, course-name, credits, course-prerequisites, stud-code, stud-name, stud-address, alias-name, pet-name, mob-no). | 5 |
| 1B. | What are the three main components of a DSS? Explain each type of component in detail giving examples. | 3 |
| 1C. | Differentiate between a fault and a failure. When does a fault lead to a failure? Will a fault always lead to a failure? | 2 |
| 2A. | What sort of an information system would you think would help a company like Cyber-OM overtake Juniper Networks in becoming the best computer networking company? Justify your thought. | 5 |
| 2B. | What is a GDSS and how does it facilitate group decision making? What is the role of a facilitator in a GDSS? | 3 |
| 2C. | 'DSS are especially useful for semi-structured problems'. Comment on this statement. Give examples for the justification. | 2 |
| 3A. | What is an expert system? Explain the components of an expert system and the criteria's for adopting an expert system. | 5 |
| 3B. | Having an experienced system analyst could also backfire. Comment giving proper justifications. | 3 |
| 3C. | Prototyping allows the users to try out a working model of a system before the actual system is complete. Comment how prototyping can be counter-productive if it creates task interference during training? | 2 |

- 4A. ISAM is used to store master file records with record keys as shown below where each track has a capacity to store a maximum of 6 records. First of all do rearrange the records as per sequential nature of ISAM also an overflow area is available but with no records currently.

Track address	Records					
60008	1712	1717	1724	1726	-----	-----
64011	1642	1664	1650	1669	1658	-----
63009	1270	1282	1292	1296	-----	-----

5

- Show the contents of the initial index for the above master file.
- Process the following transactions in the order that they are given and show the final status of the index and master records.

ADD 1640, ADD 1667, DELETE 1669, CHANGE 1296 to 1298

- 4B. Outline different types of general-purpose application software and explain each of them in brief. 3

- 4C. Which is an older concept, artificial intelligence or DSS? Discuss. 2

- 5A. Discuss the advantages and disadvantages of network model with an appropriate application case study of a network model. 5

- 5B. Compare and contrast Apple Talk and Token ring. 3

- 5C. List out the constraints in developing an MIS. 2