Manipal Institute of Technology
(A Constituent Institute of Manipal University)

II SEMESTER M. C. A.
END SEMESTER EXAMINATION – MAY 2016

SUBJECT: MANAGEMENT INFORMATION SYSTEM [MCA-5005]
14/05/2016

Time : 3 hours

Max. Marks : 50

1A 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 5 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				
9008	1412	1417	1424	1426	------
9011	1642	1664	1650	1669	1658
9014	1070	1082	1092	1096	------

   i)   Show the contents of the initial index for the above master file.
   ii) Process the following transactions in the order that they are given and show the final status of the index and master records.
   ADD 1407,ADD 1667,DELETE 1669,CHANGE 1096 to 1098

1B What sort of an information system would you think would help a company like Hewlett Packard overtake IBM in becoming the best computer manufacturing company? Justify your thought.

1C Assuming that you get a chance to interview Arvind Kejriwal, give an example of an unstructured interview comprising of the questions that you would be asking him.

(5 + 3 + 2)

2A How does MIS differ from :
    i)   Managerial accounting
    ii)   Operations research

2B Information processing for decision support will differ depending on whether the decision is structured or unstructured. Justify why this statement is true.

2C How are expert systems related to DSS? Discuss with an example.

$(5 + 3 + 2)$

3A Discuss the organizational MIS structure with the help of a figure of MIS pyramid.

3B List the various limitations of MIS giving distinct points.

3C The manager of a Toyoto showroom plans to either purchase, rent or lease an automated software simulation system. The outlet is growing day by day with lots of new branches in cities. The software if purchased would cost $10500 with an additional $800 for software, training and installation. For tax purposes the useful span of the system is four years, maintenance cost per month will be around $45. If purchased the system would be financed at 12 percent interest rate of the principal amount. As an alternative the system can be rented for $400 per month or leased for a 4 year period at a monthly cost of $620. Remember rates for rent can vary every year depending on the market status, but lease amount would remain the same.
    i)   Which is the best alternative financially for the manager?
    ii)   What benefits does rental offer in the situation described?

$(5 + 3 + 2)$

4A Differentiate between a LAN and a WAN? Identify any two advantages of WAN. What does VAN stand for?

4B Outline the four constraints in developing MIS. Discuss also how to overcome these for successful implementation.

4C Why is direct access method very fast compared to sequential method?

$(5 + 3 + 2)$

5A An institution like I.I.S.C would like to have very up-to-date scholars guiding their researchers. What type of training would they ideally go in for considering that there would always be a lot of competition amongst their faculties for promotions and hands-on training sessions in the absence of which there is likely to be lot of bad blood?

5B Discuss the reasons for normalization of databases.

5C Does information reduce uncertainity? Comment.

(5 + 3 + 2)

6A   What does ISDN stand for? Deliberate on the five principles on which ISDN works. What are the two types of channels included in an ISDN ?

6B   What are the three types of transmission direction? Give an example of each.

6C   Why is M.I.S considered to be a heavy planning element? Discuss with an example.

(5 + 3 + 2)