POST-GRADUATE COURSE

Term End Examination – June, 2018

MASTER OF LIBRARY AND INFORMATION SCIENCE

Paper-VI : Information Technology : Applications

(New : From July 2016 Enrolment Session

Old : Up to July 2015 Enrolment Session.)

Time : 4 Hours **Full Marks : 100**

(Weightage of Marks : 80%)

Special credit will be given for accuracy and relevance in the answer. Marks will be deducted for incorrect spelling, untidy work and illegible handwriting. The weightage for each question has been indicated in the margin.

GROUP – A

Answer any *two* of the following questions :

18 × 2 = 36

1. a) What do you mean by "Linux distribution" ? Write down the features of any *two* of the following linux distributions :
   i) Ubuntu
   ii) CentOS
   iii) Debian
   iv) openSUSE. 4 + 8
   b) Discuss the major roles of an Operating System in a computer system. 6
2. a) Point out the rationale of library automation. 5

   b) What are roles of Standards in library automation ? Give the reasons for using any two of the following standards in library automation :
   i) ISO-2709
   ii) Z 39.50
   iii) NCIP. 3 + 10
3. a) What is a 'content designator' ? Illustrate the structure of a MARC based bibliographic record. 3 + 3
   b) Describe MARC 21 family of standards. Make a comparative study of 'Blocks' in MARC 21 Bibliographic Format and Authority Format. 4 + 8
4. a) What are the benefits of an automated acquisition system ? 6
   b) Discuss the workflow of a typical automated acquisition system in academic libraries of India with suitable illustrations. 12

GROUP – B

Answer any *three* of the following questions :

12 × 3 = 36

5. What is a library consortia ? Differentiate the objectives and services of INDEST and UGC-Infonet as library consortia. 2 + 10
6. What do you mean by 'search technique' ? Give one example for any *five* of the following search operators/techniques :
   i) Boolean AND operator
   ii) Right truncation
   iii) Proximity operator
   iv) Relational operator
   v) Fuzzy search
   vi) Boolean NOT operator. 2 + 10

7. What is CDS/ISIS ? Describe the salient features of CDS/ISIS as bibliographic database management system. 2 + 10

8. "Open source software is changing the landscape of library services". Elucidate the statement. Make a comparative study of "Open source software" and "Close source software". 6 + 6

9. What is Unicode ? How does it differ from that of ASCII and ISCII ? 2 + 10

10. Define 'packet switching'. What are the major attributes of TCP/IP as communication protocol ? 4 + 8

GROUP – C

Answer any *four* of the following questions : $7 \times 4 = 28$

11. Write an algorithm and design a flow chart to solve the following problem : 7

    You need to calculate actual cost of the book after deducting 15% discount from the listed price for a set of 10 books.

12. Write short notes on any two of the following support tools for programming : $3\frac{1}{2} \times 2$

    i) Compiler ii) Cross Assembler

    iii) Loader iv) Linker.

13. Write short notes on any two of the following communication devices/media : $3\frac{1}{2} \times 2$

    i) MODEM ii) Multiplexer

    iii) Optical fibre iv) Coaxial cable.

14. What are the advantages of Unix-like Operating Systems ? Describe the file structure of any Unix-like Operating System. 3 + 4

15. Discuss the major features of any one open source Integrated Library System (ILS) known to you. 7

16. Define 'sorting algorithm'. What are the differences between Heap Sort and Selection Sort as sorting algorithms ? 2 + 5

17. Discuss the topology and advantages of any *two* of the following network architecture : $3\frac{1}{2} \times 2$

    i) Star topology

    ii) Tree topology

    iii) Bus topology

    iv) Ring topology.

18. What is an 'Open Standard' ? Discuss the role of any *two* of the following open standards in the domain of library systems : $3\frac{1}{2} \times 2$

    i) Dublin Core

    ii) OAI/PMH

    iii) METS

    iv) MODS.