

## POST-GRADUATE COURSE

Term End Examination – Dec., 2014 / June, 2015

MASTER OF LIBRARY AND  
INFORMATION SCIENCE

Paper-VI : Information Technology : Applications

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 is Unices ? Explain architecture of Unix-like Operating System with suitable illustration. 2 + 6
- b) Make a comparative study of Windows NT and Linux as multi-user Operating System. 10
2. a) What is content designation ? Enumerate the advantages of using content designators in bibliographic database management. 2 + 5

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- b) What do you mean by MARC 21 family of standards ? List the 'format blocks' for any *two* of the following MARC 21 standards :

- (i) MARC 21 Bibliographic Format.
- (ii) MARC 21 Authority Format.
- (iii) MARC 21 Community Information Format. 1 + 10

3. a) What do you mean by Integrated Library Management System ? 3

- b) Discuss the application of any *three* of the following components in library automation :

- (i) Bar-code technologies.
- (ii) Z 39.50 protocol
- (iii) Client-Server architecture.
- (iv) Relational Database Management System.
- (v) RFID. 5 × 3

4. What is Request for Proposal (RFP) ? Design a RFP for a university library system on the basis of general system requirements for an integrated library management system. 3 + 15

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**GROUP – B**

Answer any **three** of the following questions :

$$12 \times 3 = 36$$

5. What do you mean by character encoding standard ? Make a comparative study of ASCII, ISCII and Unicode as character encoding standards.  $3 + 9$
6. What is Algorithm ? Design a Flowchart to determine the smallest of three given numbers A, B and C.  $3 + 9$
7. Define 'computer network'. Discuss different types of computer network architecture (Topology) in brief.  $2 + 10$
8. Discuss, with suitable illustration, sub systems of computerized library acquisition system.  $12$
9. What is 'sorting algorithm' ? Explain in brief any two popular sorting algorithms related to bibliographic/textual database management.  $2 + 10$
10. What do you mean by 'transmission media' ? Make a comparative study of Coaxial Cable and Fibre Optic Cable as bound-link transmission media.  $2 + 10$

**GROUP – C**

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

11. What is a translator ? Make a comparative study of Interpreter and Compiler as translator.  $2 + 5$

12. Write in brief the use of any *two* of the following communication devices :

(i) MODEM (ii) ROUTER

(iii) SWITCH (iv) BRIDGE.  $3 \frac{1}{2} \times 2$

13. Point out the features and services of INFLIBNET as library network.  $7$
14. Write a short note on database normalization.  $7$
15. Enumerate the hardware and software requirements for running SOUL ILS in a library.

$$3 \frac{1}{2} + 3 \frac{1}{2}$$

16. Discuss the use of any *two* of the following search techniques —

(i) Boolean search

(ii) Proximity search

(iii) Truncated search.  $3 \frac{1}{2} + 3 \frac{1}{2}$

17. Point out the advantages of Relational data model over other data models.  $7$

18. Comment on any *two* of the following library standards :

(i) ISO-2709

(ii) NISO Circulation Interchange Protocol (NCIP)

(iii) MARC 21 Classification format.  $3 \frac{1}{2} + 3 \frac{1}{2}$