1. a) Briefly explain the following concepts in relation to computer technology in libraries:
   
i) Housekeeping applications
   
ii) User applications
   
iii) Management support applications. (3 marks)
b) Give **ONE (1)** example within **each** category of applications. (1.5 marks)

2. Distinguish between the following: (3 marks)
   i) *Integrated Library System.*
   ii) *Library Information System*
   iii) *Library Management Software.*

3. a) Identify **TWO (2)** factors that you would take into account when selecting an integrated library system for your library. [Exclude cost] (1 mark)

   b) Give an example of an integrated library system. (1 mark)
4. a) Identify any THREE (3) important developments in library automation during the 1970s. (1.5 marks)

b) Comment briefly on TWO (2) to show how each contributed to the growth of computer-based services in libraries. (4 marks)

5. Name THREE (3) important sources for research on the library software market. (1.5 marks)

6. a) Distinguish between pre-coordinate and post-coordinate indexing. (2 marks)
b) Give TWO (2) examples of retrieval tools based on *pre-coordinate* indexing. (1 mark)

7. a) What is meant by *co-extensive indexing*? (1 mark)

b) Why is it important in information retrieval? (1 mark)

8. a) Distinguish between *recall* and *precision* in online retrieval? (2 marks)

b) *Recall* and *precision* are not mutually exclusive. [ ] True [ ] False (1 mark)

9. Briefly explain the concept of *exhaustivity* in relation to indexing and its impact on retrieval? (2 marks)
b) Name **TWO** (2) ways in which the indexer can achieve exhaustivity. (1 mark)

10. What do you understand by the following phrase? (1 mark)
   
   *hospitality of the controlled vocabulary.*

11. What is the impact on retrieval of the Boolean Operator **AND** as well as the Boolean Operator **OR**? Illustrate your answer with a Venn diagram for each concept. (4 marks)

12. a) What is the value of *bibliographic qualifiers/limiters* in retrieval? (1 mark)
b) Give **TWO (2)** examples of *qualifiers/limiters*.  

13. Which of the following are examples of a *record*?  
   I. Related data about students in a class: such as their names, gender etc.  
   II. A listing of surnames  
   III. Information on the names of customers and their addresses  
   a) I only; b) II only; c) III only; d) I and II only  
   c) I and III only; f) II and III only; g) I, II and III  

14. Which of the following are examples of a *field*?  
   I. Related data about students in a class: such as their names, gender etc.  
   II. A listing of surnames  
   III. Information on the names of customers and their addresses  
   a) I only; b) II only; c) III only; d) I and II only;  
   e) I and III only; f) II and III only; g) I, II and III  

15. Explain briefly the concept of the *invisible web*.  

16. a) Identify the **THREE (3)** principles you should consider when setting up an OPAC display for your library. (1.5 marks)

b) Briefly describe any **ONE (1)** principle giving at least **TWO (2)** examples. (2 marks)

17. Give **TWO (2)** benefits and **TWO (2)** limitations of implementing computer-based technical services in a cataloguing department. (2 marks)

18. In automated acquisitions, identify **TWO (2)** activities that are the responsibility of human input. (1 mark)
19. What TWO (2) features would you look for in serials control software for your library? (1 mark)

20. List the primary objectives for automating the library’s circulation system. (2 marks)

21. Expand the acronym tld and give its meaning with at least TWO (2) examples. (3 marks)

22. Identify FOUR (4) categories of application software for library management for communication purposes. (2 marks)
23. Explain the impact of *data replication error* in an integrated software suite. (4 marks)

24. *Cloud computing* software has become an optional tool in library management. Provide **FOUR (4)** reasons why this software may be considered by a library manager. (2 marks)

25. General retrieval concepts and search techniques are not removed from Internet searching. Justify this statement with **TWO (2)** examples of Web retrieval concepts/search techniques. (2 marks)