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**THE UNIVERSITY OF THE WEST INDIES**

Semester I  Semester II  Supplemental/Summer School

**Examinations of December**  /April/May  /July  2017

Originating Campus: Cave Hill  Mona  St. Augustine

Course Code and Title: **LIBS3502 – TECHNOLOGY IN LIBRARIES: DATABASE DESIGN & MANAGEMENT**

Date:

Time:

Duration: **2 Hours**

Paper No:

Materials required:

Answer booklet: Normal  Special  Not required

Calculator: Programmable  Non Programmable   
(where applicable)

Multiple Choice answer sheets: numerical  alphabetical  1-20  1-100

Auxiliary/Other material(s) – Please specify:

Candidates are permitted to bring the following items to their desks:

**Instructions to Candidates: This paper has 7 pages & 25 questions.**

Candidates are reminded that the examiners shall take into account the proper use of the English Language in determining the mark for each response.

**THIS PAPER HAS TWO (2) SECTIONS – A AND B.**

**FOR SECTION A YOU ARE REQUIRED TO ANSWER ALL QUESTIONS IN THE SPACE PROVIDED.**

**FOR SECTION B YOU ARE REQUIRED TO INSERT THE APPROPRIATE ANSWER IN EACH SENTENCE.**

The University of the West Indies

Course Code

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**SECTION A**

**ANSWER ALL QUESTIONS IN THE SPACE PROVIDED.**

1. Define the term “database model”. (2 marks)

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2. Define a database and name **SIX (6)** different types. (4 marks)

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3. What is a Data Dictionary? (1 mark)

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4. a) Explain the term “**prototyping**”. (1 mark)

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b) Give **ONE** (1) advantage and **ONE** (1) disadvantage of prototyping. (2 marks)

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5. Describe the term “System Development Lifecycle”. (2 marks)

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6. Identify and explain the **FOUR** (4) main activities which take place during the implementation phase of the System Development life Cycle. (4 marks)

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7. Briefly describe **THREE** (3) types of electrical disturbances that can affect a network. (3 marks)

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8. Explain the difference between authentication and authorization? (2 marks)

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9. Define the term “Encryption”. (1 mark)

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10. Explain any **FOUR** (4) functions of a Network Interface Card. (4 marks)

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11. Define **THREE** (3) types of networks. (3 marks)

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12. State **FOUR (4)** benefits of digital libraries. (4 marks)

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13. Identify and explain the **TWO (2)** main interfaces in Greenstone Digital Library Software. (2 marks)

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14. What are the standard SQL commands that can be used to accomplish almost everything that needs to be done with a database? (3 marks)

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15. Explain, with **ONE (1)** example, the use of a Concatenation operator in Microsoft Access. (2 marks)

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16. What **TWO (2)** conditions must the primary key satisfy? (1 mark)

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**SECTION B**

**INSERT THE APPROPRIATE ANSWER IN EACH SENTENCE. (TOTAL - 9 MARKS)**

17. After testing is concluded, the final ..... is reviewed, printed and end users are trained. (1 mark)

18. A system is subject to limits known as ....., which are external to the system. (1 mark)

19. A ..... is an information system component that deals with specific functions, such as; human resources, circulation, and payroll. (1 mark)

20. Storing the same data unnecessarily at different places, is called ..... (1 mark)

21. A file is a collection of ..... records. (1 mark)

22. Database ..... activities allow for the retrieval and use of a database. (1 mark)

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- 23. A DBMS offers advantages such as, improved data security, better data integration, ..... data inconsistency and improved data access. (1 mark)
- 24. When you are able to change file structure without affecting the application's ability to access the data, you have ..... (1 mark)
- 25. An application that allows just one user access to the database at a given time is an example of a .....

**END OF EXAMINATION**

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