



UNIVERSITY OF RUHUNA
FACULTY OF MANAGEMENT AND FINANCE

No of Pages: 02
No of Questions: 04
Total Marks: 50

BBA 2103 – INFORMATION & COMMUNICATION TECHNOLOGY - II

BACHELOR OF BUSINESS ADMINISTRATION DEGREE 2000 LEVEL

FIRST SEMESTER END EXAMINATION –DECEMBER 2015 / JANUARY 2016

Two Hours

Instructions

➔ Answer all the questions

- (1). ABC Company plans to establish a database for managing information relating to their customers and employees.
- Give two reasons why the company should use a database for the above task.
 - Briefly illustrate the following Database Management System terms using suitable examples.
 - Field
 - Record
 - Primary Key
 - Describe the concept of functional dependency using a suitable example.
 - Consider the following relation in *EmployeeDB* database. Employee table consists of personal and working department details of each employee.
Employee (EmpNo, EmpName, Dob, Address, DepCode, DepName, DepLocation)
 - Identify two functional dependencies available in the above relation.
 - In which normal form is this relation?
 - Convert the relation to the next level of normal form. (12.5 marks)
- (2) a.
 - Briefly explain why Hyperlinks are used in web pages using a suitable example.
 - Give two main limitations of the Hyper Text Markup Language (HTML).
 - List two main attributes of a good website.
- b.
 - Distinguish between source program and object program in computer programming.
 - Draw a Flowchart for the following task.
Input the pin number.
Compare the pin number with the pin number stored in the system.
If the entered pin number is incorrect, display an error message.
If the entered pin number is correct, display the account details.

iii. Draw a flow chart for the following task to read marks of five subjects and calculate the total marks using **loop/loops**.

Read marks.

Check the validity of input marks (marks need to be between 0 and 100).

If marks are invalid, display an error message.

If marks are valid, calculate and display the total marks.

(12.5 marks)

(3).a . i. Distinguish between Electronic and Mobile Commerce.

ii What is a Transaction Processing System (TPS)?

iii. Briefly describe the following terms with regard to Information Systems.

1) Input

3) Output

2) Processing

4) Feedback

iv. What are the eight basic components of a computer based Information System?

v. Distinguish between Management Information Systems and Decision Support Systems.

b. i. Give definitions for Multimedia and Multimedia Systems.

ii. What are the four basic characteristics of a Multimedia System?

iii. Why is data compression necessary for Multimedia activities?

iv. Name a file type associated with lossless compression technique and a file type associated with lossy compression technique.

v. List five basic components in a Multimedia System.

vi. List four Multimedia applications.

(12.5 marks)

(4) a. i. List five cybercrime perpetrators and briefly explain two of them.

ii. What is a Computer Security Risk? List five basic Computer Security Risks?

iii. Briefly explain the following terms with regard to Computer Security.

1) Trojan Horse

2) Spyware

3) Logic Bomb

iv. List four tips for preventing Viruses and other Malware.

v. Describe the terms "botnet" and "honeypot".

vi. What are the four measurements taken by organizations to prevent Unauthorized Access and Use?

b. i. What are the four measurements that can be taken to reduce Hardware Theft and Vandalism?

ii. What are the three major conditions contained in single-user license agreement which permit the end users?

iii. Describe the terms "Encryption" and "Decryption".

iv. Name four types of System Failures.

(12.5 marks)