KRISHNA KANTA HANDIQUI STATE OPEN UNIVERSITY Hiranya Chandra Bhuyan School of Science and Technology

HOME ASSIGNMENT FOR MASTER OF SCIENCE IN INFORMATION TECHNOLOGY (MSc.IT) FOURTH SEMESTER, 2019

N.B. The learners will have to collect reseal of the collector of study centre and	will have to keep with him/her till	the declaration of result.	
	Receipt		
Received the assignment from I number	Mr/Ms Semester, 2019 MSc.IT on		
Date:	Signature of co	Signature of collector with seal	

COURSE: DATABASE MANAGEMENT SYSTEMS (MSc.IT -13)

Total Marks: 50

[Assignments are required to be written in your own language. Copying in to from the learning materials will carry less score]

A. Answer the following three questions:

2 X 3 = 6

- Q1. What is the purpose of database systems?
- Q2. What is data encryption?
- Q3. What is functional dependency? What are its types?

B. Answer the following three questions:

4 X 3 = 12

- Q1. Explain the responsibilities of DBA.
- Q2. What is Normalization? Why normalization is required?
- Q3. Explain following term with suitable examples
 - (i) Primary Key (ii) Candidate key (iii) Super key (iv) Foreign key

C. Answer the following two questions:

6 X 2 = 12

- Q1. What do you mean by entity integrity and referential integrity constraints? Explain with suitable example.
- Q2. What is data independence? Explain the difference between physical and logical data independence with suitable example.

D. Answer the following two questions:

10 X 2 = 20

- Q1. Consider following schema and write SQL for given statements:
 - student(rollno, name, branch)
 - exam(rollno, subject code, obtained marks, paper code)

- papers(paper_code, paper_satter_name, university)
- (i) Display name of student who got first class in subject '130703'.
- (ii) Display name of all student with their total mark.
- (iii) Display list number of student in each university.
- (iv) Display list of student who has not given any exam.
- Q2.What is transaction? Write some examples of transactions. Explain the concept of transaction with the help of COMMIT and ROLLBACK operations.

COURSE: MANAGEMENT INFORMATION SYSTEMS (MSc.IT -14)

Total Marks: 50

[Assignments are required to be written in your own language. Copying in toto from the learning materials will carry less score]

A. Answer the following three questions:

2 X 3 = 6

- Q1. What are the components of an information system?
- Q2. Why is testing important?
- Q3. Why is customer relationship management used in business organizations?

B. Answer the following three questions:

4 X 3 = 12

- Q1. Write short notes on the following:
 - (i) Teleconferencing
 - (ii) Video conferencing
- Q2. How is a new Internet business planned?
- Q3. Write a short note on the subsystems of an information system.

C. Answer the following two questions:

 $6 \times 2 = 12$

- Q1. Why do we study organizational systems in order to design MIS?
- Q2. Briefly describe the development process of the information system.

D. Answer the following two questions:

10 X 2 = 20

- Q1. Explain the uses of intranet as well as the applications of extranet.
- Q2. Discuss the concept of planning and implementing changes in an organization.

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COURSE: PROJECT-I (MSc.IT-15)

Total Marks: 100

PROJECT PREPARATION and PROJECT REPORT SUBMISSION

The learners have to make three copies of his completed Project Report, one copy each for:

- i. University
- ii. Study Centre
- iii. Personal copy of learner

Project guideline is available in university website: www.kkhsou.in

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COURSE: SYSTEM SOFTWARE

(MSc.IT -16)

Total Marks: 50

[Assignments are required to be written in your own language. Copying in toto from the learning materials will carry less score]

A. Answer the following three questions:

2 X 3 = 6

- Q1. What is a file management system?
- Q2. What is the purpose of DLL?
- Q3. Why is syntax analysis performed?

B. Answer the following three questions:

4 X 3 = 12

- Q1. Briefly explain the design of an assembler.
- Q2. What is syntax tree? How is it created?
- Q3. Briefly discuss the importance of LL(1) and LR parser.

C. Answer the following two questions:

6 X 2 = 12

- Q1. Explain the main functions of a linker.
- Q2. Distinguish between one pass and two pass assembler.

D. Answer the following two questions:

10 X 2 = 20

- Q1. With the help of an example explain the difference between Type-0 and Type-2 grammar.
- Q2. Write the procedure to convert DFAs to regular expression.

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