No. of Printed Pages : 3

BICS-032

00951

DIPLOMA - COMPUTER SCIENCE AND ENGINEERING (BTCSVI)

Term-End Examination

December, 2012

BICS-032 : SYSTEM ANALYSIS AND DESIGN

Time : 2 hours *Maximum Marks : 70*

Note : *All questions are to be answered in English language only.* ***Five*** *questions are to be answered and Question* ***one*** *is* ***compulsory.***

1. Compulsory question. Each sub - part carry 2 marks. **2x7=14**

   (a) Which of the following used in both high and low level analysis ?

   (i) DFD

   (ii) Data dictionary

   (iii) ER - diagram

   (iv) Structured Diagram.

   (b) Every foreign key value must match an existing primary key value is called :

   (i) Referential Integrity

   (ii) Unique integrity

   (iii) Primary key integrity

   (iv) Relational integrity

(c) The percentage of actual records processed in a single run is called as :

(i) File volatility
(ii) File activity
(iii) File regularity
(iv) File capability

(d) The collection of related data items mentioned in which of the following item?

(i) File
(ii) Record
(iii) Document
(iv) Set

(e) Partitioning is opposite to cluster. (True /False)

(f) Indexing provide fast access to the value in a row or a concatenation of columns. (True/False)

(g) File volatility addresses the properties of record changes. (True/False)

2. (a) What are the elements of a system ? Mention few characteristics of a system. 4+3

(b) Explain in detail about the system Development Life Cycle. 7

3. (a) Discuss the succeeding skills of an Expert System Analyst. 7

(b) Briefly explain Radical Method. What are the steps followed for determining system requirements ? 3.5+3.5

4. (a) What is process modeling ? Write short notes on Logic Modeling. 3.5+3.5

(b) Illustrate with an example of DFD. 7

5. (a) What is Data Modeling ? Explain in detail about ER - Modeling. 2+5

(b) Explain Software Application Testing in detail. 7

6. (a) What is Documentation ? How do you perform Training and support of staffs in System Design ? 3+4

(b) What is RAD ? Briefly explain the approaches to RAD. 2+5

7. (a) Explain Unified Modeling Language in detail. 7

(b) Write short notes on Dynamic Modeling. What are the advantages and disadvantages of RAD ? 3.5+3.5

8. Write short note on ***any four*** : 3.5x4=14

(a) OOAD

(b) OOD

(c) System Maintenance

(d) Installation

(e) Object Model

(f) Process Modeling