DIPLOMA – VIEP – COMPUTER SCIENCE AND ENGINEERING (DCSVI)

00313 **Term-End Examination**

December, 2016

BICS-032 : SYSTEM ANALYSIS AND DESIGN

Time : 2 hours *Maximum Marks : 70*

Note : *All questions are to be answered in English language only. Question no. 1 is **compulsory**. Attempt any **four** questions from the rest. All questions carry equal marks.*

1. Answer the following multiple choice questions : 7×2=14

    (a) SDLC stands for

        (i) System Development Life Cycle

        (ii) Structure Development Life Cycle

        (iii) Structure Design Life Cycle

        (iv) System Design Life Cycle

    (b) _____ is/are important factor(s) of management information system.

        (i) Data

        (ii) Process

        (iii) Either Data or Process

        (iv) Both Data and Process

(c) The first step in SDLC is

(i) Design

(ii) Coding

(iii) Analysis

(iv) Testing

(d) The _____ determines whether the project should go forward.

(i) System Evaluation

(ii) Feasibility Analysis

(iii) Project Specification

(iv) System Requirement

(e) Translating the algorithm into programming language occurs at what stage ?

(i) Design

(ii) Testing

(iii) Coding

(iv) Algorithm Development

(f) Documentation is done at what stage ?

(i) Analysis

(ii) Design

(iii) Coding

(iv) All the stages

(g) Requirement specification is carried out

    (i) After requirements are determined

    (ii) Before requirements are determined

    (iii) Simultaneously with requirements determination

    (iv) Independent of requirements determination

2. (a) What is structured analysis ? Explain the use of data dictionary and decision tree in structured analysis.   *8*

   (b) What is software maintenance ? Explain the difference between corrective and adaptive maintenance.   *6*

3. (a) What is ER modeling ? Draw an ER diagram for a suply chain management system of consumer goods. Make necessary assumptions as required.   *8*

   (b) What is object oriented modeling ? Explain the reusability advantage in object oriented modeling.   *6*

4. (a) Distinguish between technical, operational and economic feasibility of a software system in brief.   *6*

   (b) What are the different components of a Data Flow Diagram ? Draw 0-Level and 1-Level DFDs of an Online Banking System.   *8*

5. (a) What is SRS ? Explain the properties of a good SRS. 6

(b) What is the advantage of object oriented model of software development compared to structured model of software development ? Briefly explain object oriented system development life cycle. 8

6. (a) What is software documentation ? Briefly explain the different types of software documentation. 6

(b) What is system implementation ? Explain various organizational issues in system implementation. 8

7. (a) Explain the advantage of training and support in the success of a software system. 6

(b) Explain the role of a system analyst in understanding the system requirements. Also explain the mechanisms through which the system requirements are gathered. 8

8. Explain any *two* of the following with suitable examples : 2×7=14

(a) Use Case Diagram

(b) Decision Tree

(c) Class Diagram