

**DIPLOMA - VIEP - COMPUTER SCIENCE AND  
ENGINEERING (DCSVI)**

**Term-End Examination**

00306

December, 2014

**BICS-032 : SYSTEM ANALYSIS AND DESIGN**

*Time : 2 hours*

*Maximum Marks : 70*

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

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1. (a) How many steps are there in the System Development Life Cycle (SDLC) ?  $2 \times 7 = 14$
- (i) 4
  - (ii) 5
  - (iii) 6
  - (iv) 10
- (b) The first step in the SDLC is
- (i) Analysis
  - (ii) Design
  - (iii) Problem/Opportunity Identification
  - (iv) Development and Documentation

- (c) Most modern software applications enable you to customize and automate various features using small custom-built “miniprograms” called
- (i) Macros
  - (ii) Code
  - (iii) Routines
  - (iv) Subroutines
- (d) The organized process or set of steps that need to be followed to develop an information system is known as the
- (i) Analytical cycle
  - (ii) Design cycle
  - (iii) Program specification
  - (iv) System Development Life Cycle
- (e) How many steps are there in the Program Development Life Cycle (PDLC) ?
- (i) 4
  - (ii) 5
  - (iii) 6
  - (iv) 10
- (f) In the analysis phase, the development of the \_\_\_\_\_ occurs, which is a clear statement of the goals and objectives of the project.
- (i) Documentation
  - (ii) Flow chart
  - (iii) Program Specification
  - (iv) Design

- (g) Actual programming of software code is done during the \_\_\_\_\_ step in the SDLC.
- (i) Maintenance and Evaluation
  - (ii) Design
  - (iii) Analysis
  - (iv) Development and Documentation
2. (a) Define a system. Mention some characteristics that are present in all the systems. 2+5=7
- (b) Explain the various stages of System Development Life Cycle. 7
3. (a) How is traditional approach of system analysis different from structured analysis ? Explain decision tree with an example. 2+5=7
- (b) What is DFD ? Draw a 1<sup>st</sup> level DFD for the following scenario : 7
- Bebop Records is a mail-order company that distributes CDs and tapes at discounted price to record-club members. When an order processing clerk receives an order form, he or she verifies that the sender is a club member by checking the Member file. If the sender is not a member, the clerk returns the order along with a membership application form. If the customer is a member, the clerk verifies the order item data by checking the Item file. Then the clerk enters the order data and saves it to the Daily Orders file. The clerk also prints an invoice and shipping list for each order, which are forwarded to Order Fulfilment.

4. (a) What is Data Modeling ? Explain in detail about ER modeling.  $2+5=7$
- (b) What are the three types of system implementation ? Explain software conversion in detail.  $3+4=7$
5. (a) Define system testing. Mention the activities that a test plan entails.  $2+5=7$
- (b) Write down the major activities of system implementation. 7
6. (a) Define system installation. Mention the different approaches of installation.  $2+5=7$
- (b) Explain Unified Modeling Language in detail. 7
7. (a) What is RAD ? Mention the situations when RAD can be used.  $2+5=7$
- (b) Explain Object Oriented Development Life Cycle in detail. 7
8. Write short notes on any *two* with suitable examples :  $7+7=14$
- (a) Class Diagram
- (b) State Diagram
- (c) Structured Analysis
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