

DiplETE – CS

Time: 3 Hours

DECEMBER 2013

Max. Marks: 100

PLEASE WRITE YOUR ROLL NO. AT THE SPACE PROVIDED ON EACH PAGE IMMEDIATELY AFTER RECEIVING THE QUESTION PAPER.

NOTE: There are 9 Questions in all.

- Question 1 is compulsory and carries 20 marks. Answer to Q.1 must be written in the space provided for it in the answer book supplied and nowhere else.
- The answer sheet for the Q.1 will be collected by the invigilator after 45 minutes of the commencement of the examination.
- Out of the remaining EIGHT Questions answer any FIVE Questions. Each question carries 16 marks.
- Any required data not explicitly given, may be suitably assumed and stated.

Q.1 Choose the correct or the best alternative in the following: (2×10)

- a. Requirement specification is carried out
- (A) after requirements are determined
 - (B) before requirements are determined
 - (C) simultaneously with requirements determination
 - (D) independent of requirements determination
- b. The role of a system analyst drawing up a requirements specification is similar to
- (A) architect designing
 - (B) a structural engineer designing a building
 - (C) a contractor constructing a building
 - (D) the workers who construct a building
- c. Cost-benefit analysis is performed to assess
- (A) economic feasibility
 - (B) operational feasibility
 - (C) technical feasibility
 - (D) all of these
- d. The primary objective of cost-benefit analysis is
- (A) to find out direct and indirect cost of developing the information system
 - (B) to determine the tangible benefits of the information system
 - (C) to determine if it is economically worthwhile to invest in developing the information system
 - (D) to determine the intangible benefits of the information system
- e. In interactive data input terminal commands are normally used to
- (A) enter new data
 - (B) add/delete data
 - (C) select one out of many alternatives often by a mouse click
 - (D) detect errors in data input

Code: DC59 Subject: ANALYSIS & DESIGN OF INFORMATION SYSTEMS

f. A _____ is an outline of a process that keeps develop successful information systems

- (A) system development life cycle
- (B) CASE tool
- (C) phased conversion
- (D) none of these

g. An example of hierarchical data structure is

- (A) array
- (B) link
- (C) tree
- (D) all of these

h. Which are the tools not used for System Analysis

- (A) System – test data
- (B) Decision table
- (C) Data Flow Diagram
- (D) Flowcharts

i. In a _____ one module of the new information system is activates at a time

- (A) System Development Life Cycle
- (B) CASE tool
- (C) Phased Conversion
- (D) Success factors

j. A data dictionary has consolidated list of data contained in

- (i) dataflows (ii) data stores
- (iii) data outputs (iv) processes

- (A) (i) and (iii)
- (B) (i) and (ii)
- (C) (ii) and (iv)
- (D) (i) and (iv)

Answer any FIVE Questions out of EIGHT Questions.

Each question carries 16 marks.

Q.2 a. Who is the system analyst and what are the roles played by system analyst? (8)

b. With the help of a diagram explain the role of the network in Information Systems. (8)

Q.3 a. What are the resemblance in system life cycle and system development methodology? (8)

Code: DC59 Subject: ANALYSIS & DESIGN OF INFORMATION SYSTEMS

- b. Differentiate Sequential v/s Iterative development process. (8)
- Q.4** a. Describe the Accelerated Systems Analysis Approaches briefly. (8)
- b. Give an analysis on logic design phase. (4)
- c. Describe Decision Analysis Phase in brief. (4)
- Q.5** a. Describe the four types of actors in use case modelling. What is the purpose of the use-case ranking, priority matrix and use case dependency diagram? (7)
- b. Write a note on Key-based data model. (5)
- c. Define the following by giving suitable examples:-
 (i) Cardinality of a relationship
 (ii) Degree of a relationship (4)
- Q.6** a. Describe the history of object modelling. (8)
- b. What is polymorphism? When is it applied? (4)
- c. What do you understand by -The "Buy" Solution from Systems Design for Integrating Commercial Software? (4)
- Q.7** a. What do you mean by the term human factors? (8)
- b. Discuss the special considerations for user interface design? (8)
- Q.8** a. Explain the terms Control Classes, Persistence Classes, System Classes in brief. (9)
- b. Explain the difference between coupling and cohesion. (7)
- Q.9** a. Describe the systems construction and its implementation. (5)
- b. How you can Conduct System Test explain? (5)
- c. Discuss the term Conversion to the new system in system analysis and design. (6)