DiplETE – CS (OLD SCHEME)

Code: DC06   Subject: ANALYSIS AND DESIGN OF INFORMATION SYST
Time: 3 Hours   Max. Marks:

DECEMBER 2010

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 half an hour 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. The approach to system output by using the principle of management by perception is considered as

   (A) backward looking.   (B) forward looking
   (C) historical approach.   (D) none of the above.

b. Which of the following tools are used in SASD?

   (A) HIPO   (B) CASE
   (C) DFD   (D) All of the above.

c. In considering the total cost associated with desired information, cost of data collection, data input and computer processing costs are

   (A) One time   (B) Temporary.
   (C) Permanent   (D) Recurring.

d. The main advantage of normalized relations in relational DBMS is

   (A) highly secure.
   (B) do not suffer from anomalies during delete and update operations.
   (C) occupy minimal storage.
   (D) All of the above.

e. Structured English is defined as

   (A) grammatically correct description of the system.
   (B) a tool for the Systems Analyst to document the processing procedure using action oriented verbs and terms defined in the data dictionary.
   (C) and terms defined in the data dictionary.
   (D) None of the above.

f. DSS Role is

(A) trial and error search for solutions.
(B) Planning.
(C) Analyzing alternatives.
(D) All of the above

g. The most important reason for MIS failure is

(A) use of improper tools for design
(B) on involvement of end users
(C) improper specification
(D) none of the above.

h. A structure chart

(A) shows module inter-relationships in a hierarchical manner.
(B) describes the internal structure of a program in a graphical
   manner.
(C) is a graphical representation of structured English.
(D) depicts data structures in the form of a chart.

i. In a hospital data base system, the data relationship between the entity
"Patient" and the entity "ward" can be

(A) One-to-One.   (B) One-to-many.
(C) Many-to-One.   (D) Many-to-Many.

j. Stub is used in the context of

(A) Data communication.   (B) Testing of modules.
(C) Random access.   (D) None of the above.

Answer any FIVE Questions out of EIGHT Questions.
Each question carries 16 marks.

Q.2 a. Define a 'System'. Write at least five characteristics of a system. Draw
       system development diagram.   **(8)**

   b. Explain the role of following technology drivers used in information
      systems:-
      (i) Networks and internet   (ii) Object Technologies
      (iii) Collaborative Technologies   (iv) Enterprise application   **(8)**

Q.3 a. Describe SDLC and its stages in brief.   **(8)**

   b. Describe role of system analyst as:-   **(8)**
      (i)   Change agent
      (ii) Investigator or Motivator
      (iii) Sales Person
      (iv) Politician

Q.4 a. During initial investigation what is the importance of
  (i) On site observation
  (ii) Interviews and questionnaires?

  b. What is DFD, describe its importance and symbols? **(10)**

Q.5 a. What is "Cost/Benefit" Analysis, what are the cost elements need to be consider during this analysis :- **(8)**

  b. Explain Functional decomposition? **(8)**

Q.6 a. What is the purpose of System testing, mention the criteria used for system testing? **(8)**

  b. What is the necessity of user training & mention training aids available for it? **(8)**

Q.7 a. Why do Systems failure occurs, give known possible reasons? **(8)**

  b. Describe these terminologies: **(8)**

  (i)   Project management & its functions
  (ii) Expectancy theory.
  (iii) PERT.
  (iv) System flow chart

Q.8 a. Differentiate between: **(8)**
  (i)   System analyst & Technical writer.
  (ii) Top- down design & Top down programming.
  (iii) Tangible cost & variable cost.
  (iv) Stress testing & string testing.

  b. Differentiate between *"System security" & "System integrity"* also mention threats to System security? **(8)**

Q.9 a. Write about these given terminologies. **(8)**
  (i)   MIS (Management Information System)
  (ii) Overhead
  (iii) CPM
  (iv) Request for Proposal (RFP).

  b. Write about these given terminologies **(8)**
  (i)   Brainstorming
  (ii) Bulletin Board System (BSS)
  (iii) Audit testing
  (iv) Decision Support System (DSS)