

117/A**003-007301**

**M.C.A. (CBCS) Sem.-3 Examination
November-2013
CCA-3001 : System Analysis and Design**

**Faculty Code : 003
Subject Code : 007301**

Time : 2½ Hours]**[Total Marks : 70**

1. Answer the following multiple choice :

15

- (1) _____ is a collection of facts yet to be processed.
(a) Data (b) Information
(c) (a) and (b) both (d) None of these
- (2) _____ is in an orderly grouping of independent components linked together according to a plan to achieve a specific goal.
(a) Package (b) System
(c) Program (d) None of these
- (3) Which of the following is not the type of information system ?
(a) MIS (b) DSS
(c) TPS (d) None of these
- (4) _____ is the process of gathering and interpreting facts, diagnosing problems, and using the information to recommend improvements to the system.
(a) System analysis (b) System design
(c) System study (d) All of the above
- (5) Which of the following is the first step in preliminary investigation ?
(a) Technical feasibility
(b) Request clarification
(c) Request approval
(d) None of these

- (6) Which of the following is not the tool for analysis ?
(a) Data dictionary (b) Data flow diagram
(c) Data analysis (d) All of the above
- (7) Which of the following is not a type of output ?
(a) Report (b) Document
(c) Message (d) None of these
- (8) Analysis specifies
(a) What system should do (b) How system should do
(c) (a) and (b) both (d) None of these
- (9) Which of the following is fact finding techniques ?
(a) Project determination (b) Observation
(c) (a) and (b) both (d) None of these
- (10) Which of the following is not the work of analyst ?
(a) System analysis only
(b) System analysis and design
(c) Programming
(d) None of the above
- (11) A decision table consists _____ types of entries.
(a) 2 (b) 1
(c) 4 (d) None of these
- (12) Which of the following is not a testing method ?
(a) Peak load (b) Performance time
(c) Parallel (d) None of these
- (13) Which of the following is true from testing point of view ?
(a) Alpha testing is done before implementation of the system
(b) Beta testing is done after the system is implemented
(c) (a) and (b) both
(d) none of these

(14) _____ is a design tool that pictorially shows the relation between modules

- (a) HIPO (b) DFD
- (c) DD (d) None of the above

(15) _____ refers to the strength of relationship between modules in a system

- (a) Cohesion (b) Coupling
- (c) (a) and (b) both (d) None of these

2. Attempt any **five** of the following :

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- (1) Briefly explain unit test.
- (2) List the function of system analyst.
- (3) Explain function code with suitable example.
- (4) What is fact finding technique ? Explain any one of them.
- (5) Only list the reasons for project proposal.
- (6) Differentiate : Verification Vs. Validations

3. Attempt any **three** of the following :

15

- (1) Write short note on coupling and cohesion.
- (2) What is output ? List the type and objective of the output.
- (3) What is HIPO chart ? Explain it with suitable example.
- (4) What is DFD ? Explain the DFD up to two level for admission process to get admission in MCA.

4. Attempt any **two** of the following :

15

- (1) What is testing ? Explain performance test and recovery test with suitable example.
- (2) What is normalization ? Explain 1 NF, 2nf, 3nf and BCNF in detail.
- (3) Explain in detail SDLC.

5. Attempt any **one** of the following :

10

- (1) What is Implementation ? List the different methods of system Implementation and explain any two of them with suitable example.
 - (2) What is Decision Tree ? Prepare a decision tree for getting the license in RTO. (Consider the condition. the person must have learning licence, age must be ≥ 18 , must pass the computer test, must not be physically handicapped, must be the residence of India).
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003-007301

M.C.A. (CBCS) (Sem. III) Examination

November – 2011

MCA-3001 : System Analysis & Design

Faculty Code : 003

Subject Code : 007301

Time : 3 Hours]

[Total Marks : 70

Instruction : Write answers of all the questions in main answer sheet.

1 Answer the following multiple choice questions. 15

(1) What systems analysis is not

- (A) Studying a business to see which existing processes should be handled by computer and which should be done by noncomputerized method.
- (B) Determining what changes should be made.
- (C) Determining how best to solve an information systems problem.
- (D) All off the above

(2) What is not the work of system analyst ?

- (A) Systems analysis only
- (B) Systems analysis and design
- (C) Programming
- (D) None of the above

- (3) Which of the following fact-finding technique is useful when extra photocopy needed, information not found in file, required documents not completed or employee not aware about prescribed procedures?
- (A) Interview
 - (B) Questionnaire
 - (C) Observation
 - (D) Record review
- (4) How many types of table entries are possible in decision table?
- (A) 1
 - (B) 2
 - (C) 3
 - (D) 4
- (5) Which of the following rules contradicts the rules for drawing logical data flow diagrams ?
- (A) Any data flow leaving a process is independent on input data to the process.
 - (B) All data flows must be named.
 - (C) Only data needed to perform the process should be as input to the process.
 - (D) A process is independent of any other process in the system.

- (6) Which of the following is not the type of output ?
- (A) A report
 - (B) A document
 - (C) A data store
 - (D) A message
- (7) Input procedures should require entry of which of the following ?
- (A) Constant data
 - (B) Variable data
 - (C) Details that the system can retrieve
 - (D) Details that the system can calculate
- (8) Which of the following is not the type of any files ?
- (A) Master file
 - (B) Report file
 - (C) Template file
 - (D) Table file
- (9) Which of the following refers to the process of deriving a storage address from a record key ?
- (A) Direct addressing
 - (B) Hash addressing
 - (C) Track/sector addressing
 - (D) None of the above

(10) Which of the following normal form is used remove transitive dependencies ?

- (A) 1 NF
- (B) 2 NF
- (C) 3 NF
- (D) BC NF

(11) Which of the following testing focuses on integration of each module in the system ?

- (A) Peak load testing
- (B) Unit testing
- (C) Procedural testing
- (D) Systems testing

(12) Which of the following is treated as black-box testing ?

- (A) Code testing
- (B) Verification
- (C) Validation
- (D) Specification testing

(13) Which of the following conversion forces users to use the new system ?

(A) Parallel systems

(B) Direct conversion

(C) Pilot systems

(D) Phase in

(14) Which of the following feasibility studies considers about the current business method which are acceptable to the users or not?

(A) Operational feasibility

(B) Financial feasibility

(C) Technical feasibility

(D) Economical feasibility

(15) Which of the following includes record keeping applications ?

(A) Transaction processing system

(B) Management information system

(C) Decision support system

(D) None of the above

2 Answer any five of the following : 15

- (1) What is system ? Explain the important characteristics of system with basic system model control elements.
- (2) Discuss the reasons for project proposals.
- (3) What does a data dictionary record ? Explain with example.
- (4) Explain data capturing guidelines.
- (5) Give output objectives and list the types of output.
- (6) List system implementation methods and explain pilot approach.

3 Attempt any three of the following : 15

- (1) What is structured analysis and structured design ? Discuss the components of structured analysis.
- (2) Explain the use of decision table. Generate a decision table to determine whether the given year is leap year or not.
- (3) Explain various coding methods.
- (4) What is prototype ? Explain the purpose of application prototyping.

4 Attempt any two of the following : 15

- (1) Explain SDLC in detail.
- (2) What is DFD ? Explain physical and logical data flow diagram with suitable example.
- (3) What is normalization ? Explain the needs of it in designing database. Explain 1nf, 2nf and 3nf in detail with example.

- (1) What is testing ? Explain all the testing strategies in detail.
 - (2) As a system analyst, analyze and design the system for GCET online examination and merit list preparation. Your analysis should at least contain preliminary investigation, design with various diagrams, input, output and test strategies.
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