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003-003308

B.C.A. (Sem.-III) (CBCS) Examination  
November-2013

CS-13 : SAD, Software Quality Assurance and Testing

Faculty Code : 003  
Subject Code : 003308

Time : 2½ Hours]

[Total Marks : 70

- Instructions**
- (1) Figures to the right indicate full marks of the question.
  - (2) Mark and state necessary assumption.
  - (3) Draw Diagram wherever necessary
  - (4) Write answers of all questions in main answer sheet.

1. Attempt all MCQ answer : 20
- (1) The main objective of System Evaluation is
    - (a) to see whether the system met specification.
    - (b) to improve the system based on operational experience for a period.
    - (c) to remove bugs in the programs.
    - (d) to assess the efficiency of the system.
  - (2) The most important attribute of a system analyst is
    - (a) excellent programming skills
    - (b) very good hardware designing skills
    - (c) very good technical management skills
    - (d) very good writing skills
  - (3) What is Software ?
    - (a) Set of computer programs, procedures and possibly associated document concerned with the operation of data processing.
    - (b) A set of compiler instructions
    - (c) A mathematical formula
    - (d) None of above
  - (4) Waterfall model is not suitable for
    - (a) Small Projects
    - (b) Complex Projects
    - (c) Accommodating change
    - (d) None of above

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- (5) In risk analysis of spiral model, which of the following risk includes ?
  - (a) Technical
  - (b) Management
  - (c) Both (a) and (b)
  - (d) None of these
- (6) Time line chart also called
  - (a) Scheduling
  - (b) Function Chart
  - (c) Gantt Chart
  - (d) Line Chart
- (7) A context diagram
  - (a) describes the context of a system
  - (b) is a DFD which gives an overview of the system
  - (c) is a detailed description of a system
  - (d) is not used in drawing a detailed DFD
- (8) Enhancements, upgrades and bug fixes are done during the \_\_\_\_\_ step in the SDLC.
  - (a) Maintenance and Evaluation
  - (b) Problem/Opportunity Identification
  - (c) Design
  - (d) Development and Documentation
- (9) Spiral model was developed by
  - (a) Bev Littlewood
  - (b) Berry Bohem
  - (c) Roger Pressman
  - (d) Victor Bisili
- (10) White box testing, a software testing technique is sometimes called
  - (a) Basic Path
  - (b) Graph Testing
  - (c) Data Flow
  - (d) Glass Box Testing
- (11) The organized process or set of steps that needs to be followed to develop an information system is known as the
  - (a) Analytical cycle
  - (b) Design cycle
  - (c) Program specification
  - (d) System development life cycle
- (12) The \_\_\_\_\_ determines whether the project should go forward.
  - (a) feasibility assessment
  - (b) opportunity identification
  - (c) system evaluation
  - (d) program specification
- (13) A rectangle in a DFD represents
  - (a) a process
  - (b) a data store
  - (c) an external entity
  - (d) an input unit

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(14) \_\_\_\_\_ is a group of interested components working together towards a common goal by accepting inputs and producing outputs in an organized transformation process.

- (a) System (b) Network  
(c) Team (d) System Unit

(15) Object oriented is part of

- (a) SDLC (b) Software Engineering  
(c) DFD (d) None

(16) Preliminary investigation have parts

- (a) Request clarification and Approval  
(b) Monitoring  
(c) Information  
(d) All

(17) Easiest and fastest method of collect right information is

- (a) Record review (b) Observation  
(c) Questionnaire (d) Interview

(18) Managers in organization should not design their own systems as

- (a) Systems have no interact with other systems.  
(b) They do not have the special skills necessary to design systems.  
(c) It is not their job.  
(d) They are always very busy.

(19) Test harness is also known as

- (a) Test case (b) Defect  
(c) Test Framework (d) All

(20) What is subsystem ?

- (a) New system (b) Main system  
(c) Part of system (d) None

2. (a) Attempt any **three** :

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- (1) Explain Context Level DFD.  
(2) Explain System Testing.  
(3) Explain System and Subsystem.  
(4) Explain Timeline Chart.  
(5) Explain Quality Control.  
(6) Explain Test Harness.

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(b) Attempt any **three** :

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- (1) Write a note on freeware and shareware.  
(2) Explain Informal Review, Technical Review and Inspection.  
(3) Explain Decision Tree with suitable example.  
(4) Explain role of System Analyst.  
(5) Write a short note on Automated Estimation tools.  
(6) Explain Gray-Box Testing.

(c) Attempt any **two** :

10

- (1) Explain Fact Finding Techniques in detail.  
(2) Explain Waterfall model.  
(3) Explain Project Management.  
(4) What is UML ? Explain Use Case Diagram.  
(5) Write a short note on Software Faults and Failures.

3. (a) Attempt any **three** :

6

- (1) Explain Unit Testing.  
(2) Explain Data Dictionary.  
(3) Explain PERT Chart.  
(4) Write a note on Test Plan.  
(5) Explain Security Testing.  
(6) Explain Quality Assurance

(b) Attempt any **three** :

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- (1) Explain Activity Diagram with suitable example.  
(2) Explain Decision Table with suitable example.  
(3) Explain Project Monitoring and Control progress.  
(4) Explain Win Runner Testing tool.  
(5) Explain Big Bang Model.  
(6) Difference between Quality Assurance and Quality Control.

(c) Attempt any **three** :

10

- (1) Explain SDLC in detail.  
(2) Explain Software Testing Techniques.  
(3) Explain Spiral Model in detail.  
(4) Explain Project Estimation Technique.  
(5) Explain Project Scheduling and Tracking.

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