



Model paper-II
Exam-2016
Paper-Software Engineering
BCA-III

Time: 3 Hrs

MM:50

I) The Question paper contains 40 multiple choice questions with four choices and student will have to pick the correct one (each carrying ½ mark).

1. Which of the items listed below is not one of the software engineering layers?
(a) Process (b) Manufacturing (c) Methods (d) Tools ()
2. Which of the following are the 5 generic software engineering framework activities?
(a) Communication, planning, modeling, construction, deployment
(b) Communication, risk management, measurement, production, reviewing
(c) Analysis, designing, programming, debugging, maintenance
(d) Analysis, planning, Designing, programming, testing ()
3. Software processes can be constructed out pre-existing software patterns to best beet the need of a software project.
(a) True (b) False ()
4. Which of these are standards for assessing software processes?
(a) SEI (b) Spice (c) ISO9001 (d) Both B and C ()
5. The linear sequential model of software development is also known as the:
(a) Classical life cycle model (b) Fountain model
(c) Waterfall model (d) Both A and B ()
6. The rapid application model is:
(a) Another name for component-based development
(b) A useful approach when a customer can not define requirements clearly
(c) A high speed adaption of the linear sequential model
All of the above (d) ()
7. Evolutionary software process models:
(a) Are iterative in nature
(b) Can easily accommodate product requirement change

- (c) Do not generally produce throw away systems
 (d) All of the above ()
8. The prototyping model of software development is:
 (a) A reasonable approach when requirements are well defined
 (b) A useful approach when a customer can not large development teams
 (c) The best approach to use for project with large development teams
 (d) A risky mode that produces a meaningful product ()
9. The spiral model of software development is:
 (a) Ends with the delivery of the software product
 (b) Is more chaotic than the incremental model
 (c) Includes project risks evaluation during each iteration
 (d) All of the above ()
10. The component based development model is:
 (a) Only appropriate for computer hardware design
 (b) Not able to support the development of reusable components
 (c) Works best when object technologies are available for support
 (d) Not cost effective by known quantifiable software metrics ()
11. Which of these is not one of the phase names defined by the unified process model for software development.
 (a) Inception phase (b) Elaboration phase
 (c) Construction phase (d) Validation phase
12. Which of the following is not necessary to apply agility to a software process:
 (a) Eliminate the use of project planning and testing
 (b) Only essential work products produced
 (c) Process allows team to streamline tasks
 (d) Uses incremental product delivery strategy ()
13. In agile software processes the highest priority is to satisfy the customer through early and continuous delivery of valuable software.
 (a) True
 (b) False ()
14. What are the three framework activities for the adaptive Software Development (ASD) process model?
 (a) Analysis, design coding
 (b) Feasibility study, functional design, implementation
 (c) Requirement gathering, adaptive cycle planning iterative development speculation, collaboration learning (d) ()
15. Agile modeling (AM) provides guidance to practitioner during which of these software tasks ?
 (a) Analysis (b) Design
 (c) Coding (d) Testing ()
 (e) Both a and b
16. Software engineers collaborate with customers to define which of the following:

- (a) Customer visible usages scenarios
 (b) Important software outputs
 (c) System inputs and output
 (d) All of the above ()
17. Everyone in the software team should be involved in the planning activity so that we can:
 (a) Reduce the granularity of the plan
 (b) Analyze requirement in depth
 (c) Get all team member to 'sing up" to the plan
 (d) Begin design ()
18. Analysis models depict software in which three representations:
 (a) Architecture, interface, component
 (b) cost, risk, schedule
 (c) Information, function, behavior
 (d) None of the above ()
19. Which of the following is not one of the principles of good coding?
 (a) Create unit tests before you begin coding
 (b) Create a visual layout that aids understanding
 (c) Keep variable names short so that code is compact
 (d) Write soft documenting code, not program documentation ()
20. Which of the following are valid reasons for collecting customer feedback concerning delivered software?
 (a) Allows developers to made change to the delivered increment
 (b) Delivery schedule can be revised to reflect changes
 (c) Developers can identify to incorporate into next increment
 (d) All of the above
 (a) A new class by extending an existing class
 (b) Object constitute a class
 (c) An object which interfaces with outside world
 (d) Same message can result in different actions ()
21. Which one is not an essential part of OOAD?
 (a) Class diagram (b) Object diagram
 (c) Sequence diagram (d) ER diagram ()
22. Software design concept is related to :
 (a) Algorithms (b) Flow Charts
 (c) Modularity (d) Reliability ()
23. The relative functional strength of a module depends on:
 (a) Coupling
 (b) Cohesion
 (c) Coupling & Cohesion
 (d) Expendability ()
24. UML notations that can be used to model the hardware and software elements of a system are:

- (a) Activity diagrams (b) Class diagrams
(c) Deployment diagrams (d) All of the above ()
25. The results of the requirement engineering elaboration task is an analysis model that defines which of the following problem domain(s)?
(a) Information
(b) Functional
(c) Behavioural
(d) All of the above ()
26. Which of following is not a UML diagram used creating a system analysis model?
(a) Activity diagram (b) Class diagram
(c) Dataflow diagram (d) State diagram ()
27. The data dictionary contains descriptions of each software:
(a) Control item
(b) Data Object
(c) Notation
(d) Both a and b ()
28. Which of these is not an elements of an object oriented analysis model?
(a) Behavioural elements
(b) Class based elements
(c) Data elements
(d) Scenario-based elements ()
29. A generalized description of a collection of similar object is a:
(a) Class
(b) Instance
(c) Subclass
(d) Super class ()
30. Control flow diagrams are:
(a) Needed to model event driven system
(b) Required for all system
(c) Useful for modeling real time systems
(d) Both a and c ()
31. The importance of software design can be summarized in a single word:
(a) Accuracy
(b) Complexity
(c) Efficiency
(d) Quality ()
32. Cohesion is a qualitative indication of the degree to which a module?
(a) Can be written more compactly
(b) Focus on just one thing
(c) Is able to complete its function in a timely manner
(d) Is connected to there modules and the outside world ()

33. Coupling is a qualitative indication of the degree to which a module:
 (a) Can be written more compactly
 (b) Focuses on just one things
 (c) Is able to complete its function in a timely manner
 (d) Is connected to there modules and the outside world ()
34. The best reason for using independent software test teams is that:
 (a) Software developers do not need to do any testing
 (b) A test team will test the software more thoroughly
 (c) Testers do not get involved with the project until testing begins
 Arguments between developers and testers reduced (d) ()
35. What is the normal order of activities in which traditional 'software testing'.
 (a) Integration testing (b) System testing
 (c) Unit testing (d) Validation testing
 (a) A,C,C,B (b) B,D,A,C
 (c) C,A,D,B (d) D,B,C,A ()
36. Which of the following need to be assessed during unit testing?
 (a) Algorithmic performance
 (b) Error handling
 (c) Error handling
 (d) Error handling and execution paths ()
37. Bottom up integration testing has as 't's major advantages that:
 (a) Major decision points are tested early
 (b) No drivers need to be written
 (c) No stubs need to be written
 (d) Regression testing is not required ()
38. Regression testing should be a normal part of integration testing because as a new module is added to the system new:
 (a) Control logic is invoked
 (b) Data flow paths are established
 (c) Drivers require testing
 (d) Both a and B ()
39. Smoke testing might best be described as:
 (a) Bullet proofing shrink wrapped software
 (b) Rolling integration testing
 (c) Testing that hides implementation error
 (d) Unit testing for small programs ()
40. Acceptance tests are normally conducted by the :
 (a) Developer (b)End users (c)Test team (d)Ststems engineers

II) Attempt any four descriptive types of questions out of the six. All questions carry 7½ marks each.

Q.1 Why is Management Process important in a software Project? Illustrate the relationship between 'Development Process' and 'Management Process'.

Q.2 Describe in detail the 4 P's of project management?

Q.3 What is software project planning? Write a note on the approaches suggested by Putnam & Myers to the sizing problem.

Q.4 What are the design principles ? Explain in details the flow of information from analysis model to the design model.

Q.5 Explain the prototype model of SDLC?

Q.6 Writes short notes on any three:

(a) SRS

(b) Cost Estimation Model

(c) Process metrics Vs. Product metrics