

School of Engineering and Applied Science (SEAS), Ahmedabad University

Name: _____

Roll no.: _____

B. Tech.

SOFTWARE ENGINEERING

Mid Term Exam (Winter Sem.:2019)

Marks: 50 M, Wt.: 20 %

February 19, 2019, Tuesday, 9.30 PM – 10.30 PM

Instructions:

- A. All answers to be answered on this sheet itself
 - B. All answers carry 1 mark
 - C. There is only one correct response unless specifically stated and for the short answers.
 - D. Total 60 Minutes
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1. Why is Software Engineering an "Engineering" practice?
2. The essence of software engineering practice might be described as understand the problem, plan a solution, carry out the plan, and examine the result for accuracy.
 - a. True
 - b. False
3. In agile process models the only deliverable work product is the working program.
 - a. True
 - b. False
4. A most software development projects are initiated to try to meet some business need.
 - a. True
 - b. False
5. Which of these are the 5 generic software engineering framework activities?
 - a. communication, planning, modelling, construction, deployment
 - b. communication, risk management, measurement, production, reviewing
 - c. analysis, designing, programming, debugging, maintenance
 - d. analysis, planning, designing, programming, testing

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6. Explain what is **wrong** with the notion that computer software does not need to evolve over time.
7. Software must be maintained because
 - a. Software suffers from exposure to hostile environments
 - b. Defects are more likely to arise after software has been used often
 - c. Multiple change requests introduce errors in component interactions
 - d. Software spare parts become harder to order
8. The waterfall model of software development is
 - a. A reasonable approach when requirements are well defined.
 - b. A good approach when a working program is required quickly.
 - c. The best approach to use for projects with large development teams.
 - d. An old-fashioned model that is rarely used any more.
9. Evolutionary software process models
 - a. Are iterative in nature
 - b. Can easily accommodate product requirements changes
 - c. Do not generally produce throwaway systems
 - d. All of the above
10. The prototyping model of software development is
 - a. A reasonable approach when requirements are well defined.
 - b. A useful approach when a customer cannot define requirements clearly.
 - c. The best approach to use for projects with large development teams.
 - d. A risky model that rarely produces a meaningful product.
11. One cannot have weak software processes and create high quality end products.
 - a. True
 - b. False

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12. Process technology tools allow software organizations to compress schedules by skipping unimportant activities.
- True
 - False
13. What are the primary advantages of the component-based process model for software engineering?
14. How do you create agile processes to manage unpredictability (2 options)?
- Requirements gathering must be conducted very carefully
 - Risk analysis must be conducted before planning takes place
 - Software increments must be delivered in short time periods
 - Software processes must adapt to changes incrementally
15. In agile software processes the highest priorities is to satisfy the customer through early and continuous delivery of valuable software.
- True
 - False
16. Which of the following traits need to exist among the members of an agile software team?
- Competence
 - Decision-making ability
 - Mutual trust and respect
 - All of the above
17. What are the four framework activities found in the Extreme Programming (XP) process model?
- analysis, design, coding, testing
 - planning, analysis, design, coding
 - planning, analysis, coding, testing
 - planning, design, coding, testing

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18. Which is not one of the key questions that is answered by each team member at each daily Scrum meeting?
- a. What did you do since the last meeting?
 - b. What obstacles are you encountering?
 - c. What is the cause of the problems you are encountering?
 - d. What do you plan to accomplish by the next team meeting?
19. Agile Modelling (AM) provides guidance to practitioner during which of these software tasks? (2 options)
- a. Analysis
 - b. Design
 - c. Coding
 - d. Testing
20. Agile Unified Process uses the classic UP phased activities (inception, elaboration, construction, transition) to help the team visualize the overall process flow.
- a. True
 - b. False
21. Which of the following is a wrong notion about agile software process?
- a. Eliminate the use of project planning and testing
 - b. Only essential work products are produced
 - c. Process allows team to streamline tasks
 - d. Uses incremental product delivery strategy
22. Which of the following is not one of core principles of software engineering practice?
- a. All design should be as simple as possible, but no simpler
 - b. A software system exists only to provide value to its users.
 - c. Pareto principle (20% of any product requires 80% of the effort)
 - d. Remember that you produce others will consume
23. The agile view of iterative customer communication and collaboration is applicable to all software engineering practice.
- a. True
 - b. False

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24. One reason to involve everyone on the software team in the planning activity is to
- a. adjust the granularity of the plan
 - b. control feature creep
 - c. get all team members to agree to the plan
 - d. understand the problem scope
25. Project plans should not be changed once they are adopted by a team.
- a. True
 - b. False
26. Requirements models depict software in which three domains?
- a. architecture, interface, component
 - b. cost, risk, schedule
 - c. information, function, behaviour
 - d. None of the above
27. The design model should be traceable to the requirements model?
- a. True
 - b. False
28. Teams using agile software practices do not generally create models.
- a. True
 - b. False
29. 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. Refractor the code after you complete the first coding pass
 - d. Write self-documenting code, not program documentation
30. A successful testing process should endeavour to find as many undiscovered errors as.
- a. True
 - b. False

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31. Which of the following are valid reasons for collecting customer feedback concerning delivered software?
- a. Allows developers to make changes to the delivered increment
 - b. Delivery schedule can be revised to reflect changes
 - c. Developers can identify changes to incorporate into next increment
 - d. All of the above
32. We should focus on quality only during the Testing phase of the project.
- a. True
 - b. False
33. Test Planning should only begin after the coding is completed.
- a. True
 - b. False
34. Why are coding standards needed?
35. "Taking notes and documenting decisions is very important" – justify
36. The 4 Values of Agile Process are:
- a. Individuals and interactions, Working product, Customer collaboration, Responding to change
 - b. Processes and tools, Comprehensive documentation, Contract negotiation, Following a plan
 - c. Strict Process Flow, A hierarchical Team Structure, Detailed Documentation, No changes encouraged

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37. Why is handling CHANGE Important for any Software Development Process ?

38. In SCRUM the teams should

- a. Self-Motivated
- b. Self-Organizing
- c. Without Titles
- d. All of the Above
- e. None of the above

39. Name 2 Process Framework Activities (2 Options)

- a. Communication
- b. Writing Test Cases
- c. Deployment
- d. Creating Requirements Document

40. What are umbrella activities in Software Process? Give Examples.

41. Justify – “What you produce will be used by someone else”

42. In Agile Software Development, NO process is needed !!

- a. True
- b. False

43. In XP the CRC card is made up of

- a. Cyclic, Redundancy, Check

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- b. Component, Random, Commitment
 - c. Collaborators, Responsibility, Class
 - d. Class, Responsibility, Collaborators
44. In Feature Driven Development the development is centred around the features of a system
- a. True
 - b. False
45. Retrospective Meeting in SCRUM is meant to
- a. Find faults in team members
 - b. Internally find out what failed
 - c. Change the list of Features
 - d. Inspect and Adapt
46. The Full Form of the DSDM is
- _____
47. Software Development Processes will need to change in three and a half years, but the Software developed stays forever.
- a. True
 - b. False
48. If you do not agree on something what should you do ?
- a. Discuss till you arrive at an agreement
 - b. Take the majority view
 - c. Move on and visit the problem later
 - d. Do what the Project Manager Decides
49. Estimation Should be Bases on
- a. What you know
 - b. Making assumptions of what you do not know
 - c. Another system available in the market
 - d. What the manager says.
50. Test Planning can start after the design phase along with the coding phase
- a. True
 - b. False
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