MCQ FOR SOFTWARE ENGINEERING

1. What is Software?
   a) Software is set of programs
   b) Software is documentation and configuration of data
   c) Software is set of programs, documentation & configuration of data
   d) None of the mentioned

2. Which of these is true?
   a) Generic products and customized products are types of software products
   b) Generic products are produced by organization and sold to open market
   c) Customized products are commissioned by particular customer
   d) All of the mentioned

3. What are attributes of good software?
   a) Software maintainability
   b) Software functionality
   c) Software development
   d) Software maintainability & functionality

4. Which of these software engineering activities are not a part of software processes?
   a) Software dependence
   b) Software development
   c) Software validation
   d) Software specification

5. Choose the correct option in terms of Issues related to professional responsibility
   a) Confidentiality
   b) Intellectual property rights
   c) Both Confidentiality & Intellectual property rights
   d) Managing Client Relationships

6. "Software engineers should not use their technical skills to misuse other people's computers."Here the term misuse refers to:
   a) Unauthorized access to computer material
   b) Unauthorized modification of computer material
   c) Dissemination of viruses or other malware
   d) All of the mentioned

7. Efficiency in a software product does not include _____
   a) responsiveness
   b) licensing
   c) memory utilization
   d) processing time

8. Which tools are used in implementation, testing and maintenance?
   a) uppercase tools
   b) integrated case tools
   c) lowercase tools
   d) none of above

9. Waterfall model of software development is

a) a reasonable approach when requirement are well defined and project is small
b) good approach when working software is required quickly
c) best approach to use in large project and large development team.
d) Applicable to develop medium sized application when requirement are not clear.

10. Which of these is not one of the phase names defined by the Unified Process Model for software development?

a) Inception phase
b) validation phase
c) elaboration phase.
d) Construction phase.

11. What is the major advantage of using Incremental Model?

a) Customer can respond to each increment
b) Easier to test and debug
c) It is used when there is a need to get a product to the market early
d) Easier to test and debug & It is used when there is a need to get a product to the market early

12. The spiral model has two dimensions namely _____ and _____

a) diagonal, angular
b) radial, perpendicular
c) radial, angular
d) diagonal, perpendicular

13. Identify the disadvantage of Spiral Model.

a) Doesn't work well for smaller projects
b) High amount of risk analysis
c) Strong approval and documentation control
d) Additional Functionality can be added at a later date.

14. Agile Software Development is based on

a) Incremental Development
b) Iterative Development
c) Linear Development
d) Both Incremental and Iterative Development

15. How is plan driven development different from agile development?

a) Outputs are decided through a process of negotiation during the software development process
b) Specification, design, implementation and testing are interleaved
c) Iteration occurs within activities
d) All of the mentioned

16. User requirements are expressed as _____ in Extreme Programming.

a) implementation tasks
b) functionalities
c) scenarios
d) none of the mentioned

17. Which of the follc wing is the important feature of spiral model?

a) quality management
b) risk management
c) performance management
d) efficiency management

18. Which one of the following is a functional requirement ?

a) Maintainability
b) Portability
c) Robustness
d) None of the mentioned

19. What are the four dimensions of Dependability?

a) Usability, Reliability, Security, Flexibility
b) Availability, Reliability, Maintainability, Security
c) Availability, Reliability, Security, Safety
d) Security, Safety, Testability, Usability

20. Which two requirements are given priority during Requirement Management of a product ?

a) User and Developer
b) Functional and Non-functional
c) Enduring and Volatile
d) All of the mentioned

21. Which of the following is not a diagram studied in Requirement Analysis ?

a) Use Cases
b) Entity Relationship Diagram
c) State Transition Diagram
d) Activity Diagram

22. Which model in system modeling depicts the dynamic behavior of the system?

a) Context Model
b) Behavioral Model
c) Data Model
d) Object Model

23. Which model in system modeling depicts the static nature of the system ?

a) Behavioral Model
b) Context Model
c) Data Model
d) Structural Model

24. The UML supports event-based modeling using _____ diagrams.

a) Deployment
b) Collaboration
c) State chart
d) All of the mentioned

25. _____ allows us to infer that different members of classes have some common characteristics.

a) Realization
b) Aggregation
c) Generalization
d) dependency

26. _____ & _____ diagrams of UML represent Interaction modeling.
   a) Use Case, Sequence
   b) Class, Object
   c) Activity, State Chart
   d) All of the mentioned

27. Cohesion is a qualitative indication of the degree to which a module
   a) can be written more compactly
   b) focuses on just one thing
   c) is able to complete its function in a timely manner
   d) is connected to other modules and the outside world

28. Coupling is a qualitative indication of the degree to which a module
   a) can be written more compactly
   b) focuses on just one thing
   c) is able to complete its function in a timely manner
   d) is connected to other modules and the outside world

29. Choose the incorrect statement in terms of Objects.
   a) Objects are abstractions of real-world
   b) Objects can't manage themselves
   c) Objects encapsulate state and representation information
   d) All of the mentioned

30. The UML was designed for describing _____
   a) object-oriented systems
   b) architectural design
   c) SRS
   d) Both object-oriented systems and Architectural design

31. Which of the following view shows that the system is composed of interacting processes at run time?
   a) physical
   b) development
   c) logical
   d) process

32. Which of the following is not included in Architectural design decisions?
   a) type of application
   b) distribution of the system
   c) architectural styles
   d) testing the system

33. Which of the following pattern is the basis of interaction management in many web-based systems?
   a) layered pattern
   b) repository pattern
   c) model-view-controller
   d) different operating system

34. Which of the following type describes application architectures?
   a) Transaction processing applications
   b) Language processing systems
   c) Client management systems
   d) Transaction processing applications and Language processing systems

35. White Box techniques are also classified as

a) Design based testing
b) Structural testing
c) Error guessing technique
d) functional testing

36. Boundary value analysis belongs to?

a) White Box Testing
b) Black Box Testing
c) White Box & Black Box Testing
d) None of the mentioned

37. Testing done without planning and Documentation is called

a) Unit testing
b) Regression testing
c) Adhoc testing
d) None of the mentioned

38. Acceptance testing is also known as

a) Grey box testing
b) White box testing
c) Alpha Testing
d) Beta testing

39. Which of the following is non-functional testing?

a) Black box testing
b) Performance testing
c) Unit testing
d) None of the mentioned

40. Behavioral testing is

a) White box testing
b) Black box testing
c) Grey box testing
d) None of the mentioned

41. CMM model is a technique of ....

a) developing software
b) improve the software process
c) improve the testing process
d) All of the mentioned

42. What are the problems with re-structuring?

a) Loss of comments
b) Loss of documentation
c) Heavy computational demands
d) All of the mentioned

43. Source code translation is a part of which re-engineering technique?

a) Data re-engineering
b) Refactoring
c) Restructuring
d) None of the mentioned

44. Reverse engineering is the process of deriving the system design and specification from its

a) GUI
b) Database
c) Source code
d) All of the mentioned

45. Software evolution does not comprises:

a) Development activities
b) Negotiating with client
c) Maintenance activities
d) Re-engineering activities

46. The modification of the software to match changes in the ever changing environment, falls under which category of software maintenance?

a) Corrective
b) Adaptive
c) Perfective
d) Preventive

47. _____ combines procedures and tools to manage different versions of configuration objects that are created during the software process.

a) Configuration status reporting
b) change control
c) version control
d) system building

48. Which of the following is not software configuration management activity?

a) change management
b) risk management
c) version management
d) release management

49. The process of generating analysis and design documents is known as

a) Software engineering
b) Software re-engineering
c) Reverse engineering
d) Re-engineering

50. CMM stands for

a) Capability Management Module
b) Conservative Maturity Model
c) Capability Maturity Module
d) Capability Maturity Model

51. Which of the following risk is the failure of a purchased component to perform as expected?

a) Product risk
b) Project risk
c) Business risk
d) Programming risk

52. What assess the risk and your plans for risk mitigation and revise these when you learn more about the risk?

a) Risk monitoring
b) Risk planning
c) Risk analysis
d) Risk identification

53. Which of the following risks are derived from the organizational environment where the software is being developed?

a) People risks
b) Technology risks
c) Estimation risks
d) Organizational risks

54. Which of the following strategies means that the impact of the risk will be reduced?

a) Avoidance strategies
b) Minimization strategies
c) Contingency plans
d) All of the mentioned

55. Every task that is scheduled should be assigned to a specific team member is termed as

a) Compartmentalization
b) Defined milestones
c) Defined responsibilities
d) Defined outcomes

56. Which of the following is a project scheduling method that can be applied to software development?

a) PERT
b) CPM
c) CMM
d) Both PERT and CPM

57. Which of the following costs is not part of the total effort cost?

a) Costs of networking and communications
b) Costs of providing heating and lighting office space
c) Costs of lunch time food
d) Costs of support staff

58. A _____ is developed using historical cost information that relates some software metric to the project cost.

a) Algorithmic cost modeling
b) Expert judgment
c) Estimation by analogy
d) Parkinson's Law

59. Which technique is applicable when other projects in the same analogy application domain have been completed?

a) Algorithmic cost modeling
b) Expert judgments
c) Estimation by analogy
d) Parkinson's Law

60. Which model assumes that systems are created from reusable components, scripting or database programming?

a) An application-composition model
b) A post-architecture model
c) A reuse model
d) An early design model

61. Which of the following states that work expands to fill the time available?

a) CASE tools
b) Pricing to win
c) Parkinson's Law
d) Expert judgments

62. COCOMO stands for.....

a) common cost model
b) constructive cost model
c) complete cost model
d) comprehensive cost model

ANSWERS

1.(c)	2. (d)	3. (d)	4. (a)	5. (c)
6. (d)	7. (b)	8. (c)	9. (a)	10. (b)
11. (c)	12. (d)	13. (a)	14. (d)	15. (c)
16. (c)	17. (b)	18. (d)	19. (c)	20. (c)
21. (d)	22. (b)	23. (d)	24. (c)	25. (c)
26. (a)	27. (b)	28. (d)	29. (b)	30. (d)
31. (d)	32. (d)	33. (c)	34. (d)	35. (b)
36. (b)	37. (c)	38. (d)	39. (b)	40. (b)
41. (b)	42. (b)	43. (c)	44. (c)	45. (b)
46. (b)	47. (c)	48. (b)	49. (c)	50. (d)
51. (a)	52. (a)	53. (d)	54. (b)	55. (c)
56. (d)	57. (c)	58. (a)	59. (c)	60. (a)
61. (c)	62. (b)			

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University
Faculty of Humanities & Social Sciences
OFFICE OF THE DEAN

Examination 2019

Bachelor in Computer applications
Course Title: Software Engineering
Code No: CACS 253
Semester: IV

Full Marks: 60
Pass Marks: 24
Time: 3 hours

Candidates are required to answer the questions in their own words as far as possible.

Group A

Attempt all the questions. **10×1=10**

1. Circle (O) the correct answer.

i) Which one of the following is not a phase of Prototyping Model?
   a) Quick Design
   b) Coding
   c) Prototype Refinement
   d) Engineer Product

ii) What is the major drawback of using RAD Model?
   a) Highly specialized & skilled developers/designers are required
   b) Increase reusability of components
   c) Encourages customer/client feedback
   d) Increases reusability of components, highly specialized & skilled developers/designers are required

iii) Which one of the following is not a software process quality?
   a) Productivity
   b) Portability
   c) Timeliness
   d) Visibility

iv) Which phase of the RUP is used to establish a business case for the system?
   a) Transition b) Elaboration c) Construction d) Inception

v) Which one of the following is not a fundamental activity for software processes in software engineering?
   a) Software Verification
   b) Software Validation
   c) Software design and implementation
   d) Software evolution

vi) User requirements are expressed as ..... in Extreme Programming.
   a) implementation tasks
   b) functionalities
   c) scenarios
   d) none of the mentioned

vii) Which one of the following is not a step of requirement engineering?
   a) elicitation
   b) design
   c) analysis
   d) documentation

viii) Which one of the following is a functional requirement?

a) Maintainability
b) Portability
c) Robustness
d) None of the mentioned

ix) Which of the following is not a diagram studied in Requirement Analysis?

a) Use Cases
b) Entity Relationship Diagram
c) State Transition Diagram
d) Activity Diagram

x) Requirements analysis is critical to the success of a development project.

a) True
b) False
c) Depends upon the size of project
d) None of the mentioned

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Group B

Attempt any SIX questions. **[6×5 = 30]**

2. What are the attributes of good software? What are the key challenges that software engineering face during software development? Explain.
3. What is software process model? List the types of software model. Explain agile methods and software prototyping.
4. What are the types of software requirements? Explain functional, non-functional, domain and user requirements.
5. Define software design concept and modularization? Differentiate cohesion and coupling.
6. Why User Interface design is so important? How UI design visualized? Discuss.
7. Why software maintenance is considered as major component in SDLC? Explain software maintenance types.
8. What do you mean by configuration management? Why it is important? Explain.

Group C

Attempt any TWO questions. **[2×10 = 20]**

9. What are the skills necessary to handle software project? Explain different software projects management activities.
10. What are ISO quality standards? Discuss ISO9000 and ISO9001. Explain Black box testing and white box testing techniques.
11. What are the techniques that are used to elicit and analysis of requirements during software requirements analysis and specification? Explain all.

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