

BSCS Fall 2019
Software Engineering
Quiz 1 (Date: March 16, 2021)

1. In Software Engineering, which one of the following is not part of Software?
A. Instructions
B. Documentation
C. Hardware needed
D. Data Structures
2. "Software is engineered not constructed". The main reason of the characteristic is:
A. Software is tangible.
B. Software is intangible
C. Software is prone to change
D. Software is not prone to change
3. Software Engineering is the application of systematic, disciplined, quantifiable approach to the development, operation, and _____ of software.
A. Adaptation
B. Prevention
C. Maintenance
D. Enhancement
4. In which maintenance type, requirements are added in Software?
A. Correction
B. Enhancement
C. Adaptation
D. Prevention
5. In which maintenance type, good practices are adopted to avoid or minimize other maintenance types?
A. Correction
B. Enhancement
C. Adaptation
D. Prevention
6. For software development process, which one of the following is an umbrella activity?
A. Analysis
B. Design
C. Software Project Management
D. Testing
7. In which part of structured design, data structures are identified and placed according to requirements?
A. User Interface Design
B. Component Level Design
C. Architectural Design
D. Data Design
8. In "Software Engineering: A Layered Technology", which layer acts like "how tos"?
A. "A quality focus"
B. 'Process'
C. 'Method'
D. 'Tools'
9. In "Software Engineering: A Layered Technology", which layer acts like 'umbrella'?
A. "A quality focus"
B. 'Process'
C. 'Method'
D. 'Tools'
10. 'Quality' is an absolute concept.
A. True
B. False

BSCS Fall 2019
Software Engineering
Quiz 2 (Date: April 01 , 2021)

1. Waterfall Model is an Iterative Process Model. *
 - A. True
 - B. False
2. Which process model can be used as a "Process Model" and as a 'technique'? *
 - A. Waterfall Model
 - B. Incremental Model
 - C. Prototyping Model
 - D. Spiral Model
3. Which process model highly emphasizes on the use of latest tools and techniques? *
 - A. Rapid Application Development Model
 - B. Incremental Model
 - C. Prototyping Model
 - D. Spiral Model
4. Which concept is avoided to use in "Rapid Application Development" Model? *
 - A. Component Based Development
 - B. Modeling
 - C. Sequential Development
 - D. Use of automated tools
5. In which process model, result of each iteration is an operational software? *
 - A. Prototyping Model
 - B. Spiral Model
 - C. Rapid Application Development Model
 - D. Incremental Model
6. If all the issues are settled in first iteration of software development, even then we will go for next iteration. *
 - A. True
 - B. False
7. Which process model can keep visiting the software throughout its life? *
 - A. Linear Sequential Model
 - B. Prototyping Model
 - C. Spiral Model
 - D. Incremental Model
8. Practically speaking, we cannot use characteristics of one process model in other process model. *
 - A. True
 - B. False

9. In which process model, "phase overlapping" concept is used? *

- A. LSM
- B. Prototyping
- C. Incremental
- D. Spiral

10. Adaptation of "Software Engineering: A layered technology" is known as: *

- A. Software Process
- B. Software Process Model
- C. Both of the above
- D. None of the above

Mid Term_SE_BSCSF19

Total points: 60

Time: 45 Minutes

1. Waterfall Model is not an Iterative Process Model.

True

False

2. Prototyping model can be used as "Process Model" and as 'technique' as well?

True

False

3. Which process model highly emphasizes on the use of parallel development?

Rapid Application Development Model

Incremental Model

Prototyping Model

Spiral Model

4. Which concept is avoided to use in "Rapid Application Development" Model?

Component Based Development

Modeling

Sequential Development

Use of automated tools

5. In which process model, result of each iteration is not an operational software?

Prototyping Model

Incremental Model

6. If all the issues are settled in first iteration of software development, even then we will go for next iteration.

True

False

7. Which process model can keep visiting the software throughout its life?

Linear Sequential Model

Prototyping Model

Spiral Model

Incremental Model

8. Practically speaking, we cannot use characteristics of one process model in other process model.

True

False

9. In which process model, "phase overlapping" concept is used?

LSM

Prototyping

Incremental

Spiral

10. Adaptation of "Software Engineering: A layered technology" is known as:

Software Process

Software Process Model

Both of the above

None of the above

11. In Software Engineering, which one of the following is not part of Software?

Instructions

Documentation

Hardware needed

Data Structures

12. "Software does not wear out". The main reason of the characteristic is:

Software is tangible.

Software is intangible

Software is prone to change

Software is not prone to change

13. Software Engineering is the application of systematic, disciplined, quantifiable approach to the development, _____, and maintenance of software.

Operation

Prevention

Maintenance

Enhancement

14. In which maintenance type, good management practices are used to avoid or minimize software maintenance?

Correction

Enhancement

Adaptation

Prevention

15. Which maintenance type rarely comes across?

Correction

Enhancement

Adaptation

Prevention

16. For software development process, which one of the following is an umbrella activity?

Analysis

Design

Software Quality Assurance

Testing

17. In which part of structured design, logic of function is made?

User Interface Design

Component Level Design

Architectural Design

Data Design

18. In "Software Engineering: A Layered Technology", which layer acts like 'glue'?

"A quality focus"

'Process'

'Method'

'Tools'

19. In "Software Engineering: A Layered Technology", which layer acts like 'umbrella'?

"A quality focus"

'Process'

'Method'

'Tools'

20. 'Quality' is a relative concept.

True

False

21. Which diagram is made for “Data Modeling”?

Data Flow Diagram

State Transition Diagram

Work Breakdown Structure

Entity Relationship Diagram

22. Which diagram is made for “Functional Modeling”?

Entity Relation Diagram

State Transition Diagram

Work Breakdown Structure

Data Flow Diagram

23. Which diagram is made for “Behavioral Modeling”?

Data Flow Diagram

Entity Relation Diagram

Work Breakdown Structure

State Transition Diagram

24. If a software team has developed business software and after some time client wants to add some function along with change in the operating system, the support types applied will be

Correction and Enhancement

Adaptation and Prevention

Enhancement and Adaptation

None of the above

25. The only deliverable work product for a successful project is the working program.

True

False

26. Non-Functional requirements are normally stated by the customer.

True

False

27. ‘Coding’ is considered as most expensive phase of “Software Development Life Cycle”.

True

False

28. Which one of the following is not a characteristic of a 'Project'?

Projects are unique and non-repetitive.

A project must have a substantial goal.

A project is an 'operation'.

Projects are temporary in nature and have a definite beginning and ending date.

29. Which one of the following is not part of triple constraints?

Time

Cost

Technology

Scope

30. “A set of tools and techniques, performed by people, to describe, organize, and monitor, the work of project activities.” is known as _____.

Project

Project Management

Project Management Technology

All of the above

31. Which phase of Project Life Cycle contains maximum processes?

Initiating

Planning

Executing

Closing

32. Which phase of Project Life Cycle is executed in parallel?

Initiating

Planning

Monitoring and Controlling

Closing

33. Which one of the following is not part of "MOI" model of leadership?

Motivation

Organization

Improvement

Innovation

34. In which phase of "Tuckman Team Model", people feel part of the team and realize that they can achieve work if they accept other view points?

Forming

Storming

Norming

Adjourning

35. In which team structure, "Horizontal Communication" is more than "Vertical Communication"?

Democratic Decentralized

Chief Programmer

Controlled Centralized

All of the above

36. Which one of the following is not the reason to have measurements?

To characterize

To evaluate

To improve

To impress

37. A measure, metric or combination of metrics, measures which provide an insight is known as_____.

Measure

Metric

Measurement

Indicator

38. "Line of Code" based estimation is heavily dependent on_____.

Experience

Skills

Historical Data

Current System

39. Maximum value of "Complexity Adjustment Factors" in "Function Point Analysis" is _____.

Fifty

Seventy

Ten

Seventy Five

40. In MS Project, a resource person is allocated 100 % effort, it means that it will work for _____ hours per day.

10

8

16

12

41. Count total of the project is:

400

350

420

450

42. Size of the project is:

449.4 FPs

4490.4 FPs

49 FPs

4049.4 FPS

43. Cost per 1 FP is:

Rs. 1000 / FP

Rs. 10000 / FP

Rs. 100000 / FP

Rs. 1801 / FP

44. Effort of the project is:

136.18 PM

400 PM

500 PM

600 PM

45. Cost of the project is:

Rs. 909603.1

Rs. 809603.1

Rs. 709603.1

Rs. 609603.1

Following data is for Question # 46 to Question # 48: Size of Project is 13995 LOC, Labor Rate: Rs. 1000 Per Month, Average Productivity: 700 LOC / Month

46. Cost / 1 LOC is:

Rs. 10 / LOC

Rs. 15 / LOC

Rs. 1.42 / LOC

Rs. 500 / LOC

47. Cost of Project is:

Rs. 19998.85

Rs. 199988.85

Rs. 1998.85

Rs. 2000

48. Effort of the Project is:

200 PM

20 PM

2000 PM

2 PM

49. By using CoCoMo, if we have Initial Effort (E_i) = 20 PM and Effort Adjustment Factors = 1, What will be the effort of the project?

49 PM

20 PM

50 PM

19 PM

50. The tool layer in Software Engineering: A layered technology is known as _____ as well.

Computer Aided Software Engineering (CASE)

Computer Aided Software Enlightenment (CASE)

Care Aided Software Engineering (CASE)

None of the above

51. Software is _____ of real life.

a refinement

an abstraction

a necessity

a need

52. Linear sequential model is an evolutionary process model.

True

False

53. Which one of the following is treated as "balancing factor" in the concept of "triple constraints"?

Cost

Time

Quality

Scope

54. Which one of the following is foundation of good leadership?

Good Administration

Good Management

Good Quality

Good Working

55. Identify metric?

500 LOC (Size)

Project B has 10 defects and Project A has 100 defects

500 PM (Effort)

None of the above

56. Identify measure?

500 LOC (Size)

Project B has 10 defects and Project A has 100 defects

500 PM (Effort)

None of the above

57. Identify indicator?

500 LOC (Size)

Project B has 10 defects and Project A has 100 defects

500 PM (Effort)

None of the above

58. Identify functional requirement?

Security

Performance

Marking attendance in CMS

Portability

59. Identify Non functional requirement?

Addition in calculator

invoice generation in Point of sale system

Marking attendance in CMS

Portability

60. By default, MS Project schedules the project from _____?

End of project date

Start of project date

.

Software Engineering: Quiz 3 Solution

1. A _____ is defined as a “temporary endeavor with a beginning and an end and it must be used to create a unique product, service or result

Operation

Activity

Task

Project

2. Which one of the following is a "balancing factor" in project's triple constraints?

Time

Cost

Scope

Quality

3. Which phase of the Project's life cycle contains maximum processes?

Executing

Planning

Monitoring and Controlling

Initiating

4. 'Group' shares _____ goal, 'team' shares _____ goal.

common, individual

individual, common

5. In which team structure, maximum jelling of team can be achieved?

Democratic Decentralized

Controlled Centralized

Controlled Decentralized

6. Which diagram is drawn to understand the data domain of the system?

Data Flow Diagram

State Transition Diagram

Entity Relationship Diagram

None of the above

7. Which diagram is drawn to understand the Functional domain of the system?

Data Flow Diagram

State Transition Diagram

Entity Relationship Diagram

None of the above

8. _____ contains physical value of all attributes that act as an aspect, quality, characteristic, or descriptor of the entity.

Entity

Relationship

Instance

Modality

9. _____ indicates type of 'connectedness' between two entities

Entity

Relationship

Instance

Modality

10. _____ indicates whether it is mandatory or optional to create an instance of entity against other entity's instance

Entity

Relationship

Instance

Modality

BSCS Fall 2019: SE Quiz 4 Solution

1. Which one of the following is not an element of "Entity Relationship Diagram"?

Entity

Cardinality

Data Store

Modality

2. Which one of the following is not an element of "Data Flow Diagram"?

Data Flow

External Entity

Data Store

Relationship

3. Which kind of 'Cardinality' does not exist in "Entity Relationship Diagram"?

One to Many

One to One

Many to Many

One to Two

4. Which one of the following is not a type of "External Entity"?

Users

External System

Data stores of the system under consideration

None of the above

5. Which element of "Data Flow Diagram" contains unidirectional flow of data?

Data Flow

Data Store

6. Which one of the following is not part of a 'process' in "Data Flow Diagram"?

Input

Data Store

Process itself

Output

7. In "Data Flow Diagram", which one of the following is shown with "verb name phrase"?

External Entity

Data Flow

Process

Data Store

8. Using "Top Down Approach" to develop "Data Flow Diagram" is known as _____.

Balancing Concept

Decomposition Concept

Abstraction Concept

Refinement Concept

9. Every flow shown going into or out of a process bubble, should be carried out to its lower level diagram as it is" is known as _____ .

Balancing Concept

Decomposition Concept

Abstraction Concept

Refinement Concept

10. Interaction/s between/among external entities are not shown in "Data Flow Diagram"?

True

False