Choose the correct answer: [1→24: 2 Points, the rest have same points]

1. SRS includes both project & product requirements
   a. True b. False
2. Project requirements may include:
   a. Physical resources the development team need
   b. User documentation
   c. Training materials
   d. Tutorials
   e. All of the above
3. Support documentation could be:
   a. Help desk resources
   b. Field maintenance
   c. Reference manuals
   d. Release notes
   e. A & B
4. Infrastructure changes needed in the operating environment must not be included in project requirements
   a. True
   b. False
5. Requirements elicitation typically takes:
   a. Usage centric
   b. Product centric
   c. Function centric
   d. Both A & B
   e. Both A & C
6. Negotiating implementation priorities is an analysis activity:
   a. True b. False
7. Deriving functional requirements from other requirement information is an analysis activity
   a. True b. False
8. Requirement and specification have the same meaning
   a. True b. False
9. Developers agree that they understand the requirements is a part of requirements agreement
   a. True b. False
10. Testers agree that the requirements are verifiable, is a part of requirements agreement
    a. True b. False
11. Acceptance criteria might address the estimated remaining defect levels:
    a. True b. False
12. Acceptance criteria might address the estimated remaining defect levels:
    a. True b. False
13. Acceptance criteria cannot address the performance of certain actions in operating environment
    a. True b. False
14. Agile projects rely heavily on _____ tests
    a. Regression
    b. Performance
    c. Alpha
    d. Beta
    e. Acceptance
15. In Agile, testers can judge whether a specified requirement was implemented correctly
    a. True b. False
16. In Agile, Testers don't always know exactly what you will consider an acceptable outcome
    a. True b. False
17. The vision and scope document contains the product's:
    a. Non-functional requirements
    b. Feasible requirements
    c. Imaginary requirements
    d. Functional requirements
    e. Business requirements
18. The scope statement gives all stakeholders a common understanding of the product's outcome.
    a. True b. False
19. The vision defines the boundary between what's in and what's out for a specific release or iteration.
    a. True b. False
20. Business rules include:
    a. corporate policies
    b. government regulations
    c. standards
    d. computational algorithms
    e. all of the above
21. What is the output of the following part of code:

```
package main
import "fmt"
func main() {
names := [3]string{"A","B","C","D",}
a := names[0:2]
b := names[1:3]
fmt.Println(a, b)
b[0] = "###"
fmt.Println(a, b)
fmt.Println(names)}
```

    a. [A B C D]
    b. [A B] [B C]
    c. [A ###] [### C]
    d. [A ### C D]
    e. None of the above
22. What is the output of the following code:

```
func main() {
   var s []int
   show(s)}
func show(s []int)
{fmt.Printf(len=%d cap=%d %v\n, len(s), cap(s), s)}
```

    a. len=0 cap=0 []
    b. len=1 cap=1 [0]
    c. len=2 cap=2 [0 1]
    d. len=5 cap=6 [0 1 2 3 4]
    e. None of the above
23. Let the following line of code:
    var pow = int{1, 2, 4, 8, 16, 32, 64, 128}
    what is the returned value of *range pow*?
    a. The first is the index, and the second is a copy of the element at that index.
    b. Power values of the specified range
    c. Pair value of the specified range
    d. Both A & D
    e. None of the above
24. What is the workspace in GO?
    a. source contains GO source files organized into packages
    b. pkg contains package objects
    c. Both A & B
    d. None of the above
25. How to use customized packages in GO language?
    a. Under your project folder put the folder with library files
    b. Refer to the library using its path relative to the root of your workspace consisting the project
    c. Both A & B
    d. None of the above

26. Which of the following is an advantage of Go:
    a. It supports several safety features and CSP-style concurrent programming features
    b. Strings and Maps are built into the language
    c. Functions are first-class objects in this language
    d. Both A & B
    e. All of the above
27. Go interfaces are set of methods
    a. True b. False
28. Go interface is referred to as type
    a. True b. False
29. Go support generic Programming
    a. True b. False
30. Is there uninitialized variables in Go?
    a. Yes b. No
31. Which of the following is related to Software Quality:
    a. Meeting specified requirements.
    b. Meeting Customer expectations.
    c. Software ability to satisfy implied needs.
    d. A & C
    e. All of the above
32. Quality control:
    a. Monitoring the process of development of the software
    b. Measures the software attributes that have been developed
    c. Controlling the process of development of the software
    d. A & B
    e. A & C
33. Quality assurance:
    a. Monitoring the process of development of the software
    b. Measures the software attributes that have been developed
    c. Controlling the process of development of the software
    d. A & B
    e. A & C
34. The degree to which the software enforces control over access to information by users is:
    a. Flexibility
    b. Reliability
    c. Security
    d. Interoperability
    a. A capability maturity model
    b. A grading system that measures how good an organization is development
    c. A Control management method for measuring software quality
    d. A & B
    e. A & C
36. The testing phase of software development *doesn't* require:
    a. testing that the implementation compiles correctly.
    b. testing that the implementation matches the design.
    c. testing that the implementation matches the requirements.
    d. testing that the components of the implementation work separately and together.
    e. None of the above
37. Integration is important because:
    a. it ensures that the software is familiar to those who will use it.
    b. it ensures that the software is "friendly" to those who will use it.
    c. it ensures that the software replaces the existing system simultaneously everywhere it is to be used.
    d. it ensures that the software is not installed until the old system has been removed.
    e. None of the above
38. System maintenance is necessary because:
    a. Humans gets it right the first time.
    b. The deployment platform may not change over time.
    c. All of the above.
    d. None of the above.
39. Maintenance may not involve:
    a. additional coding and testing.
    b. additional analysis and design.
    c. additional design, coding and testing.
    d. any of the development phases, except analysis.
    e. None of the above
40. A software process model is
    a. A representation of the way in which software is developed
    b. A representation of the way in which software processes data
    c. A representation of the way in which software is used
    d. A representation of the way in which software may fail
    e. An attractive young person used in the process of
41. The five general phases in the Spiral model are:
    a. Analysis, Design, Implementation, Testing, and Review
    b. Review, Decision, Engineering, Acceptance, and Planning
    c. Analysis, Design, Engineering, Testing, and Payment
    d. Review, Risk-analysis, Prototyping, Engineering (develop & verify), and Planning
    e. Review, Risk-analysis, Design, Implementation, and Planning
42. Which of the following increases as the Spiral model process moves "outwards"?
    a. Risk
    b. Profit
    c. Time-to-delivery
    d. Time-to-completion
    e. None of the above
43. A software development model is really just:
    a. a more complex metaphor for what happens in reality.
    b. a theory which approximates what happens in reality
    c. an exact isomorphism to what happens in reality
    d. an elaboration of the abstraction of flexibility
    e. a comforting lie we tell ourselves to maintain the delusion that we're developing software in some logic fashion.
44. A metric is:
    a. an ISO standard unit (such a meter, kilogram, etc.)
    b. a qualitative measure of the degree to which a syst component possesses a given attribute
    c. a quantitative measure of the degree to which a system component possesses a given attribute
    d. a qualitative attribute which determines the degr to which a system component may be measured
    e. an attributed quantity which measures a system component in degrees.
45. Why is it useful to measure aspects of a system?
    a. Because human subjective perception is notoriou inaccurate.
    b. Because numbers give us a way of comparing, controlling and predicting system behavior.
    c. Because measurements give us a way of trackin progress.
    d. Because it gives us an assessment of the produ quality.
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جامعة البعث — امتحان هندسة برمجيات 2 — الاسم: — النموذج: A

كلية الهندسة المعلوماتية — الدورة التكميلية 2021-2022 — المدة: ساعة — مدرس المقرر: د. محمد ربيع شاهين

Choose the correct answer: [1→10: 2.5 Points, 11→25: 1.5 Points, otherwise have same points]

1. What is the output of the following part of code:

```
package main
import "fmt"
func main() {
names := [4]string{"A","B","C","D",}
fmt.Println(names)
a := names[0:2]
b := names[1:3]
fmt.Println(a, b)
b[0] = "###"
fmt.Println(a, b)
fmt.Println(names)}
```

   a. [A B C D]
   b. [A B] [B C]
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2. What is the output of the following part of the code:

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    b. Because numbers give us a way of comparing, controlling and predicting system behavior.
    c. Because measurements give us a way of tracking progress.
    d. Because it gives us an assessment of the product quality.
    e. All of the above.

26. Unit tests should
    a. Fast , Independent
    b. Repeatable, Self-Validating
    c. Timely
    d. All of the above
    e. None of the above

27. Requirements can be refined using
    (A) The waterfall model (B) prototyping model
    (C) the evolutionary model (D) the spiral model
    (E) Any of the above

28. The most important feature of spiral model is
    (A) requirement analysis. (B) risk management.
    (C) quality management. (D)configuration management.
    (E) Both B & C.

29. IEEE 830-1993 is a IEEE recommended standard for
    (A) Software requirement specification.
    (B) Software design. (C) Testing.
    (D) Both (A) and (B).
    (E) None of the above.

30. If every requirement stated in the Software Requirement Specification (SRS) has only one interpretation, SRS is said to be
    (A) correct. (B) unambiguous.
    (C) consistent. (D) verifiable.
    (E) Both A & C.

31. If the objects focus on the problem domain, then we are concerned with
    (A) Object Oriented Analysis.
    (B) Object Oriented Design
    (C) Object Oriented Analysis & Design
    (D) None of the above

32. The model in which the requirements are implemented by category is
    (A) Evolutionary Development Model
    (B) Waterfall Model
    (C) Prototyping
    (D) Iterative Enhancement Model
    (E) Both A & D.

Aj

33. The desired level of coupling is
    (A) No coupling (B) Control coupling
    (C) Common coupling (D) Data coupling

34. In the spiral model 'risk analysis' is performed
    (A) In the first loop (B) in the first and second loop
    (C) In every loop (D) before using spiral model

35. For a well understood data processing application it is best to use
    (A) waterfall model (B) Prototyping model
    (C) evolutionary model (D) spiral model
    (E) Any of the above

36. The feature of the object oriented paradigm which helps code reuse is
    (A) object. (B) class.
    (C) inheritance. (D) aggregation.
    (E) Any of the above

37. The main purpose of integration testing is to find
    (A) design errors (B) analysis errors
    (C) procedure errors (D) interface errors
    (E) None of the above

38. The testing that focuses on the variables is called
    (A) black box testing (B) white box testing
    (C) data variable testing (D) data flow testing

39. Software consists of
    (A) Set of instructions + operating procedures
    (B) Programs + documentation + operating procedures
    (C) Programs + hardware manuals
    (D) Set of programs
    (E) All of the above.

40. Which phase is not available in software life cycle?
    (A) Coding (B) Testing
    (C) Maintenance (D) Abstraction

41. Which is not a step of requirement engineering?
    (A) Elicitation (B) Analysis
    (C) Design (D) Documentation

42. Let S be a system, where Ca is 10, and Ce is 20, then the instability of S is:
    a. 1/3 b. 2/3 c. 3/2
    d. 1 e. None

43. Number of Modified lines can be measured by
    a. CC
    b. MOC
    c. LOC
    d. Churned LOC
    e. None of the above

44. CC:
    a. Number of conditions
    b. Number of explicit conditions
    c. E – N + P
    d. None of the above

45. When CC is greater than 15:
    a. Defects probability goes down
    b. Defects probability decreases
    c. Path coverage should be used
    d. Branch coverage should be used
    e. None of the above

A 2 1 2