Software Project Management

Multiple Choice Questions & Answers:-

1. Which of the following is not project management goal?

a) Keeping overall costs within budget.

b) Delivering the software to the customer at the agreed time.

c) Maintaining a happy and well-functioning development team.

d) Avoiding costumer complaints.

Answer:D

2. Project managers have to assess the risks that may affect a project.

a) True

b) False

Answer:B

3. Which of the following is not considered as a risk in project management?

a) Specification delays

b) Product competition

c) Testing

d) Staff turnover

Answer:C

4. The process each manager follows during the life of a project is known as

a) Project Management

b) Manager life cycle

c) Project Management Life Cycle

d) All of the mentioned

Answer:C

5. A 66.6% risk is considered as

a) very low

b) low

c) moderate

d) high

e) very high

Answer:D

6. Which of the following is/are main parameters that you should use when computing the costs of a software development project?

a) travel and training costs

b) hardware and software costs

c) effort costs (the costs of paying software engineers and managers)

d) All of the mentioned

Answer:D

7. Quality planning is the process of developing a quality plan for

a) team

b) project

c) customers

d) project manager

Answer:B

8. Which of the following is incorrect activity for the configuration management of a software system?

a) Internship management

b) Change management

c) Version management

d) System management

Answer:A

9. Identify the sub-process of process improvement

a) Process introduction

b) Process analysis

c) De-processification

d) Process distribution

Answer:B

10. An independent relationship must exist between the attribute that can be measured and the external quality attribute.

a) True

b) False

Answer:B

11. If a software production gets behind schedule, one can add more programmers and catch up.

a) True

b) False

Answer:B

12. Choose an internal software quality from given below:

a) scalability

b) usability

c) reusability

d) reliability

Answer:C

13. RUP stands for_____ created by a division of _____.

a) Rational Unified Program, IBM

b) Rational Unified Process, Infosys

c) Rational Unified Process, Microsoft

d) Rational Unified Process, IBM

Answer:D

14. The RUP is normally described from three perspectives-dynamic, static & practice.What does static perspective do ?

a) It shows the process activities that are enacted.

b) It suggests good practices to be used during the process.

c) It shows the phases of the model over time.

Answer:A

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

a) True

b) False

Answer:B

16. Which phase of the RUP is used to establish a business case for the system ?

a) Transition

b) Elaboration

c) Construction

d) Inception

Answer:D

17. 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

e) Software specification

Answer:A

18. A general statement of objectives is the major cause of failed software efforts.

a) True

b) False

Answer:A

19. The longer a fault exists in software

a) the more tedious its removal becomes

b) the more costly it is to detect and correct

c) the less likely it is to be properly corrected

d) All of the mentioned

Answer:D

20. Component-based Software Engineering allows faster delivery.

a) True

b) False

Answer:A

21. Arrange the following steps to form a basic/general Engineering Process Model.

i. Test

ii. Design

iii. Install

iv. Specification

v. Manufacture

vi. Maintain

a) 2, 4, 5, 1, 6, 3

b) 4, 2, 5, 1, 3, 6

c) 2, 4, 5, 1, 3, 6

d) 4, 2, 5, 1, 6, 3

Answer:B

22. Which of the following categories is part of the output of software process?

a) computer programs

b) documents that describe the computer programs

c) data

d) All of the mentioned

Answer:D

23. Which is a software configuration management concept that helps us to control change without seriously impeding justifiable change?

a) Baselines

b) Source code

c) Data model

d) None of the mentioned

Answer:A

24. Software Configuration Management can be administered in several ways. These include

a) A single software configuration management team for the whole organization

b) A separate configuration management team for each project

c) Software Configuration Management distributed among the project members

d) All of the mentioned

Answer:A

25. What combines procedures and tools to manage different versions of configuration objects that are created during the software process?

a) Change control

b) Version control

c) SCIs

d) None of the mentioned

Answer:B

26. What complements the formal technical review by assessing a configuration object for characteristics that are generally not considered during review?

a) Software configuration audit

b) Software configuration management

c) Baseline

d) None of the mentioned

Answer:A

27. Which of the following is the process of assembling program components, data, and libraries, and then compiling and linking these to create an executable

system?

a) System building

b) Release management

c) Change management

d) Version management

Answer:A

28. Which of the following option is not tracked by configuration management tools?

a) Tracking of change proposals

b) Storing versions of system components

c) Tracking the releases of system versions to customers

d) None of the mentioned

Answer:D

29. Which of the following is not a Software Configuration Management Activity?

a) Configuration item identification

b) Risk management

c) Release management

d) Branch management

Answer:B

30. The definition and use of configuration management standards is essential for quality certification in

a) ISO 9000

b) CMM

c) CMMI

d) All of the mentioned

Answer:D

31. What involves preparing software for external release and keeping track of the system versions that have been released for customer use?

a) System building

b) Release management

c) Change management

d) Version management

Answer:B

32. 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

Answer: C

33. Considering the example of issue/return of a book, cataloging etc. in a library management.What type of management requirement is being depicted here?

a) Enduring

b) Volatile

Answer:A

34. Why is Requirements Management Important ? It is due to the changes

a) to the environment

b) in technology

c) in customer’s expectations

d) in all of the mentioned.

Answer:D

35. Requirements Management is a prerequisite for Quality-Oriented

Development.

a) True

b) False

Answer:A

36. Requirements traceability is one of the most important part requirement management. It may also be referred to as the heart of requirement management.

a) True

b) False

Answer:A

37. Requirements Management has a high initial start-up cost but does not need ongoing funding throughout a project.

a) True

b) False

Answer:B

38.Which of the following is not a Requirement Management workbench tool ?

a) RTM

b) DOORS

c) Rational Suite

d) RDD 100

Answer:C

39. Which of the following is a requirement management activity?

a) Investigation

b) Design

c) Construction and Test

d) All of the mentioned

Answer:D

40. What functionality of Requirement Management Tool (RMT) is depicted by the statement: “the tool should be able to automatically detect relations between artifacts. For example information retrieval techniques, monitoring of change history, naming schemas or model transformations.”

a) Automatic Link Detection

b) Documentation Support

c) Graphical Representation

d) Automatic Link Creation and Change

Answer:A

41. According to a statistical report: “over 30% of all software projects are cancelled before completion and over 70% of the remainder fail to deliver expected features”. What must be the reason for such a situation ?

a) Poor change management

b) Poor requirements management

c) Poor quality control

d) All of the mentioned

Answer:B

42. Which of the following are parameters involved in computing the total cost of a software development project?

a) Hardware and software costs

b) Effort costs

c) Travel and training costs

d) All of the mentioned

Answer:D

43. 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

Answer:C

44. What is related to the overall functionality of the delivered software?

a) Function-related metrics

b) Product-related metrics

c) Size-related metrics

d) None of the mentioned

Answer:A

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

a) Algorithmic cost modelling

b) Expert judgement

c) Estimation by analogy

d) Parkinson's Law

Answer:A

46. It is often difficult to estimate size at an early stage in a project when only a specification is available

a) True

b) False

Answer:a

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

a) Algorithmic cost modelling

b) Expert judgement

c) Estimation by analogy

d) Parkinson’s Law

Answer:c

48. 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

Answer:A

49. 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 judgement

Answer:C

50. Which model is used during early stages of the system design after the requirements have been established?

a) An application-composition model

b) A post-architecture model

c) A reuse model

d) An early design model

Answer:D

51. Which model is used to compute the effort required to integrate reusable components or program code that is automatically generated by design or program translation tools?

a) An application-composition model

b) A post-architecture model

c) A reuse model

d) An early design model

Answer:C

52. The COCOMO model takes into account different approaches to software development, reuse, etc.

a) True

b) False

Answer:B

53.Identify, from among the following, the correct statement.

a) One of the main challenges Software Engineering facing today is the requirement of most software systems to work with a multitude of homogenous systems

b) 'Legacy systems' are custom developed software systems for the legal domain

c) Software does not wear-out in the traditional sense of the term, but software does tend to deteriorate as it evolves

d) Since software is essentially 'intangible' it is relatively easy to manage software projects

e) With the advent of component based software assembly, we find that only less than 20% of today's software is still custom built.

Answer:C

54.Software Engineering:

a) Is a set of rules about developing software products

b) Has been around as a discipline since the early 50's

c) Started as a response to the so-called 'Software Crisis' of the late 90's

d) Is an engineering discipline concerned with all the aspects of software production

e) Is now a mature discipline on par with other established engineering fields.

Answer:D

55.

Read the following paragraph and identify the correct statement.

"Imagine that you were recently hired as a software engineer to a company that specializes in aircraft navigation control software. While orientating yourselves to the company's work practices, you observe that they in fact do not conduct a few tests that they should in order to comply with the relevant safety standard. When you inquire about this from the project manager, he dismisses it saying that those tests are really unnecessary (and takes an unreasonably long time to conduct, as well as being superfluous) and that they have managed with the other tests for so long, without any problems."

a) You should immediately resign from the company and file a complaint with the relevant standard institution

b) You should do nothing and let the matter slide

c) Although you are new to the company, and you hardly know anything about the internal processes and politics, you should insist on the company changing its work practices immediately; failing which you threaten to report the matter

d) Since you are new to the company, and you are unfamiliar with the internal processes and politics, you should first find-out more about the issue and its background

e) None of the above statements are correct.

Answer:D

56.

With regard to Evolutionary development, identify the correct statement.

a) Evolutionary development usually comes in two flavors; exploratory development, and throw-away prototyping

b) Very large projects are natural candidates for an evolutionary development based approach

c) Exploratory development is used in situations where most of the requirements are well understood in advance

d) One of the strong points of evolutionary development is that it facilitates easy project management, through the high volume of documentation it generates

e) Often the construction of a throw-away prototype is not followed by a reimplementation of the system using a more structured approach.

Answer:A

57.

What is the fundamental reason that software cannot be considered to be engineered?

a) It is designed by humans and therefore flawed

b) Software engineering (as opposed to other forms of engineering, such as Civil) is an art – not a science

c) The discipline is relatively new, say in comparison to bridge building that is an activity that has millennia of practice

d) None of these are true. Software Engineering is a truly rigorous discipline

e) The complexity of systems and their interaction continues faster than we can understand it.

Answer:E

58.

The software life cycle can be said to consist of a series of phases. The classical model is referred to as the waterfall model. Which phase may be defined as “The concept is explored and refined, and the client’s requirements are elicited?”

a) Requirements (b) Specification (c) Design

d) Implementation (e) Integration.

Answer:A

59.

The individual or organisation who wants a product to be developed is known as the:

a) Developer (b) User (c) Contractor (d) Initiator (e) Client.

Answer:E

60.

Which of the following items should not be included in the software project management plan?

a) The techniques and case tools to be used

b) Detailed schedules, budgets and resource allocations

c) The life cycle model to be used

d) The organisational structure of the development organisation, project responsibilities, managerial objectives and priorities

e) None of the above.

Answer:E

61.

The final form of testing COTS software is _____ testing.

a) Unit (b) Integration (c) Alpha (d) Module (e) Beta.

Answer:E

62.

In the maintenance phase the product must be tested against previous test cases. This is known as _____ testing.

a) Unit (b) Integration (c) Regression (d) Module (e) Beta.

Answer:C

63.

Which property of the rapid prototype is not important?

a) The speed with which it can be developed

b) The speed with which it can be modified

c) Its ability to determine the client's real needs

d) The insights that the design team can gain from it, even if they are of the 'how not to do it' variety

e) Its internal structure.

Answer:C

64.

An example of the risk involved in software development is

a) Key personnel may resign before the product is complete

b) The manufacturer of critical components (e.g. the hardware associated with a real-time system) may go bankrupt

c) Technology changes may render the product obsolete

d) Competitors may market a fully functional lower-cost equivalent package

e) All of these are risks involved in software development.

Answer:E

65.

A simple way of looking at the spiral software life-cycle model is as a waterfall model with each phase proceeded by

a) Build-and-fix

b) Freezing

c) Synchronization

d) Testing

e) Risk analysis.

Answer:E

66.

The degree of interaction between two modules is known as

a) Cohesion

b) Strength

c) Inheritance

d) Coupling

e) Instantiation.

Answer:D

67.

The relationship between a derived class (or subclass) and base class is referred to as

a) Association

b) Inheritance

c) Polymorphism

d) Instantiation

e) Aggregation.

Answer:B

68.

Myers (1978) identifies seven levels of cohesion. Which level of cohesion may be defined as followed; “the output from one element in the component serves as input for some other element”?

a) Communicational cohesion

b) Functional cohesion

c) Communicational cohesion

d) Temporal cohesion

e) None of these.

Answer:A

69.

A design is said to be a good design if the components are

a) Strongly coupled

b) Weakly cohesive

c) Strongly coupled and Weakly cohesive

d) Strongly coupled and strongly cohesive

e) Strongly cohesive and weakly coupled.

Answer:E

70.

If a control switch is passed as an argument this is an example of _____ coupling.

a) Content

b) Common

c) Control

d) Stamp

e) Data.

Answer:C

71.

Which of the following is a type of abstraction?

a) Data

b) Procedural

c) Iteration

d) All of the above

e) None of the above.

Answer:D

72.

In the classical chief programmer team approach, the team member responsible

for maintaining the detailed design and coding is

a) The chief programmer

b) The programming secretary

c) A specialized function that exists outside ‘the team’

d) The individual coder (i.e. programmer)

e) The back-up programmer.

Answer:D

73.

Internal costs include

a) Developers salaries

b) Managers and support personnel salaries

c) The cost of overheads such as utilities, rent and senior managers

d) Materials (such as manuals) and services such as travel

e) All of the above.

Answer:a

74.

Problems with using Lines of Code to measure the size of a product include(s)

a) The creation of source code is only part of the development effort

b) The Lines of Code (LOC) will differ between languages and cannot be measured for some languages

c) Should comments, data definitions etc (i.e. non-executable LOC) be included as well?

D) The final size (kLOC) can only be determined once the product is delivered

e) All of the above.

Answer:e

75.

Software Science bases its estimation of the size of a product on

a) Files (Fi), Flows (Fl) and Processes (Pr)

b) Lines of Code (kLOC)

c) Function Points (FP)

d) operands and operators

e) Feature Points (FeP).

Answer:d

76.

In Intermediate COCOMO the mode that represents complex products is referred to as

a) Embedded

b) Semidetached

c) Organic

d) Multiplicative

e) Monolithic.

Answer:A

77.

Work that continues throughout the project and does not relate to any specific phase of software development is termed a(n)

a) Milestone

b) Project function

c) Activity

d) Task

e) Baseline.

Answer:B

78.

The advantage of following the IEEE Standard for drawing up a Software Project Management Plan (SPMP) – see IEEE Standard 1059.1 1987 – is

a) It is drawn up by representatives from major software development organisations

b) It is designed for all types of software products

c) It is a framework that can be used irrespective of process model or specific techniques

d) It can be tailored for each organisation for a particular application area, development team or technique.

e) All of the above.

Answer:E

79.

The best way to test the Software Project Management Plan (SPMP) is by

a) Prototyping

b) Inspection

c) Simulation

d) Compilation

e) Debugging.

Answer:B

80.

Algorithmic cost estimation in different organisations may be different for the same application development, because

a) Different organisations consider complexity factors differently

b) Different organisations may use different programming languages

c) Developers' skills may vary

d) Techniques for the measurement of productivity may vary

e) All of the above may be true.

Answer:E

81.

The aim of software engineering is to produce software that is

a) Fault-free

b) Delivered on time

c) Delivered within budget

d) Satisfies users' needs

e) All of these are the aims of software engineering.

Answer:E

82.

Object-oriented concepts are not new. The first OO language was considered to be

a) ALGOL-68

B) FORTRAN 77

c) C

d) MODULA

e) SIMULA 67.

Answer:E