SOFTWARE ENGINEERING - MCQs

1. If software acts as a product, it can be recognised by its ___, accessibility of networks and its hardware capabilities.
Ans. Computing operations

2. The different phases of software engineering are design, ___ and maintenance.
Ans. Implementation

3. When did the fourth era of computers begin?
Ans. In the year 1985

4. The four activities followed in a software process are ___, ___, ___and ___.
Ans. Software specification, Software development, Software validation, Software evolution

5. The three types of process patterns are ___, ___and ___.
Ans. Task process pattern, Stage process pattern, Phase process pattern

6. The process model where simultaneously testing and development is done is waterfall model. (True/False)
Ans. False

7. The quality of a software product is defined by ___.
Ans. ISO/IEC 9126

8. A software program is for ___ user while a software product is for ___ users.
Ans. Single, multiple

9. Any two software quality characteristics are ___ and ___.
Ans. Usability, maintainability

10. Product line engineering is also known as ___.
Ans. Product family engineering

11. The study of product family is considered as a latest approach for creating new products. (True/False)
Ans. True

12. PERT and COCOMO are project estimation techniques. (True/False)
Ans. True

13. Define risk analysis.
Ans. Risk analysis can be defined as a series of risk management steps that enable us to attack risk.

13. The five information domains of function oriented metrics are ___ and ___.
Ans. Direct, indirect

14. Mention any three dimensions used to measure software quality of a product are ___ and ___.
Ans. Size-oriented metrics, function oriented metrics

16. The four most important measures of software quality ar
Ans. Number of user inputs, number of user outputs, number of user inquiries, number of files, number of external interfaces

17. The four stages of project management life cycle are ___, ___, ___ and ___.
Ans. Initiation, planning, scheduling, tracking and risk analysis

18. The cost and schedule related estimates are defined in the scope of a software project. (True/False)
Ans. True

19. Mention any two uses of Gantt charts.
Ans. Planning and scheduling projects, Assessing and determining the project duration, resources needed and the order in which the tasks must be carried out

20. Define software project tracking.
Ans. Project tracking is the way in which projects are managed and it involves a series of tracking activities which are both measured and reported

21. The large activities in a project are known as ___.
Ans. Milestones

22. Mention any two benefits of project control.
Ans. Project delivery is done as scheduled considering cost and time, accurate reports of the project status

23. Mention ant three top software risk items in a project.
Ans. Personnel shortfalls, Unrealistic schedules and budgets, Developing the wrong functions and properties, developing the wrong user interface

24. Risk analysis steps are ___, ___, ___ and ___.
Ans. Identify threats, Estimate risk, managing risk, reviews

25. The two types of risk analysis reports are ___ and ___.
Ans. Quantitative risk analysis report, qualitative risk analysis report

26. The three different types of resources required for software project planning are ___, ___ and ___.
Ans. Human resources, Hardware resources, Business resources

27. Mention any two points you must adhere to schedule a project.
Ans. Use milestones to show progress, Check for availability of scheduling methods

28. The two types activities used in Gantt charts are ___ and ___.
Ans. Sequential activities and parallel activities

29. Mention any two software project planning tools.
Ans. Business systems planning tool, Project management tool

30. Any two software estimation models are ___ and ___.
Ans. Function-point model, Delphi model

31. Define software estimation.
Ans. Software estimation is the process of judging a software product and solving the problem associated with the software project

32. The technical and environmental variables can affect ___ and ___.
Ans. Cost, effort

33. The two software modeling techniques are ___ and ___.
Ans. Prediction modelling, Estimation modelling.

34. Mention two concepts of programming for reliability:
Ans. Error handling code, Inconsistent assumptions

35. The fault avoidance approaches followed in a software project are ___, ___ and ___.
Ans. Formal or precise specification method, Verification and validation, techniques, Software testing

36. The two strategies of fault tolerance are ___ and ___.
Ans. Error processing, Fault treatment

37. Define software reuse.
Ans. Software reuse can be defined as a process of developing new software systems from predefined software components or the existent software assets.

38. Based on software assets, software reuse can be classified into ___ and ___.
Ans. Opportunistic reuse, Planned systematic reuse.

39. The types of software reuse are ___ and ___.
Ans. Horizontal reuse, Vertical reuse.

40. The two types of software reliability techniques are ___ and ___.
Ans. Trending reliability, Predictive reliability

41. Software configuration items can be defined as ___.
Ans. A single section of a large specification or a suite of test cases which is well documented

42. We can define software configuration management as an art of ___, ____ and ___ the changes that occur during the software developmental phase.
Ans. Identifying, organising and controlling

43. The four different software configuration items are ___, ___, ___ and ___.
Ans. Evolving items, Source items, Support items, Archive items.

44. The four procedures of software configuration management are ___, ___, ___ and ___.
Ans. Configuration identification, Configuration and change control, Configuration status accounting, Configuration audit.

45. Mention any two configuration objects.
Ans. Design specification, test specification

46. Unscheduled audits are conducted in the configuration audit. (True/False)
Ans. True.

47. Version control is also known as ___.
Ans. Revision controls

48. Mention two advantages of version control.
Ans. Track all old versions of files, Prevent overwriting of work.

49. The Concept of ___ and ___ are used in the version control system.
Ans. Check-out, check-in

50. The main objective of change control is ___.
Ans. To reduce the impediments/disruptions that can be caused to the ongoing activities in a software project.

51. Insufficient documentation is one of the challenges of change control (True/False)
Ans. True.

52. Mention any two benefits of change control.
Ans. Documentation of change approvals and implementation, Maintenance of change history and easy retrieval of information

53. Configuration status reporting is also known as ___.
Ans. Status accounting

54. Mention any two phases of configuration audits.
Ans. Requirements, design

55. The configuration management standard used for software life cycle process is ___.
Ans. IEEE 12207-2008

56. Mention any two software reliability metrics.
Ans. Product metrics, Function point metrics.

57. The central processing unit acts as the ___ of the computer.
Ans. Brain.

58. The important steps followed in system analysis are ___, ___ and ___.
Ans. Identification of Need, Feasibility study, Economic analysis, Technical analysis, Allocation and trade-offs.

59. Any two objectives of system analysis are ___ and ___.
Ans. Determine the needs of the customer; carry out economic and technical analysis.

60. The four main components of system architecture are ___, ___, ___ and ___.
Ans. Processing power, Storage, Connectivity, User experience

61. The five processing regions of a template are ___, ___, ___, ___ and ___.
Ans. User interface, Input, System function and control, Output, Maintenance and self-test.

62. The term “system architecture” is used to describe the ___ and ___ of a computer network or system.
Ans. Overall design, structure

63. System specification is a document. (True/False)
Ans. True.

64. The two segments of system specification review are ___ and ___.
Ans. Management viewpoint, Technical evaluation of system elements and functions

65. A review is conducted by the ___ or the ___.
Ans. Developer, customer

67. The compact disk and digital video disks are also known as the ___ drives.
Ans. Optical disk

68. Spread sheet is an example of an optical disk drive. (True/False)
Ans. False

60. Computer system engineering is also known as ___.
Ans. Computer engineering

70. The pre-requisite for the study of computer engineering, is to have a sound knowledge of ___ and ___.
Ans. Mathematics, science.

71. Requirement analysis is one of the tasks performed under the ___ phase of software engineering.
Ans. Analysis

72. The software requirement analysis links the gap between software design and system engineering. (True/False)
Ans. True

73. What helps us in gathering and forming relevant information, sharing knowledge and creating functioning products?
Ans. Communication

74. What are the main reasons behind the delay and failure of software projects?
Ans. Problems in communication

75. The two types of communication are ___ and ___.
Ans. Informal, formal

--- THE END ---