Project management

1. Conformance to the requirements:
   a. Is the condition of the product or service in relation to customer‘s requirements
   b. Is same as customer satisfaction
   c. Is a tool used to measure quality
   d. Gold plating

2. Quality can best be defined as:
   a. Fitness for use and Fitness for purpose
   b. The totality of features and characteristics of a product or service that bear on it's stated or implied needs
   c. Highest grade
   d. Customer satisfaction

3. Grade of a product:
   a. Means the same thing as quality
   b. Can be used interchangeably with quality
   c. Is the level of a product or service
   d. Depends on the quality of the product

4. The interpretation of Quality can vary from person to person due to differences in:
   a. Culture
   b. Nationality
   c. Economic background
   d. All of the above

5. What is not an example of cost of conformance to quality?
   a. Legal liabilities
   b. Planning
   c. Quality audits
   d. Field testing
6. The company has to repair or replace a product. This will be taken as a?
   a. Recall cost
   b. Warranty cost
   c. Scrap and rework cost
   d. Inspection and testing cost

7. Cost of quality categories are:
   a. Prevention and appraisal costs
   b. Internal failure and external failure costs
   c. Prevention, appraisal, internal failure and measurement and testing costs
   d. Prevention, appraisal, internal failure and external failure costs

8. Appraisal cost is:
   a. Prevention cost
   b. The cost of evaluating processes to ensure they are error free
   c. Cost of appraising the project’s viability
   d. Cost of appraising rework

9. Effective communication is one of the most important skills required by
   a. The project team
   b. The management
   c. The project manager
   d. The project contractor

10. The following are the possible Interfaces:
    a. Organizational, personnel and external
    b. External and internal
    c. Pure internal and contractual
    d. External and organizational
11. Which of the following does not constitute the role of a project manager:

   a. Integrator and coordinator
   b. Business case approval
   c. Project delivery
   d. Project planning and controlling

12. The three key levels at which responsibility can be defined is at the ______ level, at the ______ level and at the ______ level.

   a. Project, Strategic, Activity
   b. Project, Activity, WBS
   c. Project, Organization, Team
   d. Team, Organization, contractor

13. The functional manager and project manager have equal power in which organizational structure?

   a. Weak matrix
   b. Functional
   c. Strong matrix
   d. [D]Balanced matrix

14. Mark the option which does not form a component of a communication process model

   a. Arguments
   b. Understanding
   c. Feedback
   d. Body language

15. The _____ allows determination of the early start, early finish, late start and late finish.

   a. Three-point estimates
   b. Flow chart technique
   c. Precedence diagramming method
   d. Critical path method

**Ans. 1 to 15**
16. The three phases involved in the management of large projects are

   a. planning, scheduling, controlling.
   b. planning, scheduling, evaluating.
   c. scheduling, designing, operating.
   d. scheduling, operating, evaluating.

17. With respect to PERT and CPM, slack

   a. is the latest time an activity can be started without delaying the entire project.
   b. is a task or subproject that must be completed.
c. marks the start or completion of a task.

d. is the amount of time a task may be delayed without changing the overall project completion time.

18. A dummy activity is required when

a. two or more activities have different ending events.
b. two or more activities have the same ending events.
c. two or more activities have the same starting events.
d. the network contains two or more activities that have identical starting and ending events.

19. Which of the following is a basic assumption of PERT?

a. Activity completion times are known with certainty.
b. Only critical path activities in the network must be performed.
c. No activity in the network must be repeated.
d. There is only one complete route from the start of a project to the end of a project.

20. PERT analysis computes the variance of the total project completion time as

a. the sum of the variances of all activities not on the critical path.
b. the sum of the variances of all activities on the critical path.
c. the variance of the final activity of the project.
d. the sum of the variances of all activities in the project.

21. The critical path of a network is the

a. longest time path through the network.
b. shortest time path through the network.
c. path with the most activities.
d. path with the fewest activities.

22. Which of the following is a direct responsibility of the project manager?

a. Calculating completion probabilities for all tasks in the project.
b. Drawing the network diagram.
c. Making sure that the people assigned to the project receive the motivation, direction, and information needed to do their jobs.
d. Performing all of the activities in the project.

23. Dummy activities

a. are used when two activities have identical starting and ending events.
b. have a duration equal to the shortest non-dummy activity in the network.
c. are found in both AOA and AON networks.
d. cannot be on the critical path.

24. Which of the following is a limitation of PERT and CPM?

a. They are applicable to only a narrow variety of projects and industries.
b. There is inherent danger of too much emphasis being placed on the critical path.
c. They can be used only to monitor schedules.
d. The graphical nature of a network delays comprehension of the activity list's interrelationships.
25. An activity has an optimistic time of 15 days, a most likely time of 18 days, and a pessimistic time of 27 days. What is its expected time?
   a. 18 days  
   b. 60 days  
   c. 20 days  
   d. 19 days

26. An activity has an optimistic time of 11 days, a most likely time of 15 days, and a pessimistic time of 23 days. What is its variance?
   a. 16.33  
   b. 4  
   c. 15.6  
   d. 2

27. Activities A and B are both 6 days long and the only immediate predecessors to activity C. Activity A has ES=8 and LS=8 and activity B has ES=7 and LS=10. What is the ES of activity C?
   a. 16  
   b. 13  
   c. 14  
   d. 15

28. A project's critical path is composed of activities A, B, and C. Activity A has a standard deviation of 2, activity B has a standard deviation of 1, and activity C has a standard deviation of 2. What is the standard deviation of the critical path?
29. What is the probability that a project with a mean completion time of 23.9 days and a variance of 6 days will be finished in 26 days?

a. 0.80  
b. 0.37  
c. 0.20  
d. 0.63

30. The EF of an activity is the

a. LF - Activity time.  
b. Min{LS of all immediate following activities}.  
c. Max{EF of all immediate predecessors}.  
d. ES + Activity time.

31. The ethical issue of divulging confidential information to some bidders to give them an unfair advantage is known as

a. bid rigging.  
b. bribery.  
c. low balling.  
d. expense account padding.
32. Which of the following is not a main element of the project management process?

   a. Schedule.
   b. Estimation.
   c. Plan.
   d. Monitor.
   e. Systems design.

33. Which of the following is not a main project objective?
34. Which of the following is a main PRINCE project aim?

a. Stay within budget.
b. Meet specified quality.
c. Deliver on schedule.
d. Meet specified quality.
e. All of the above.

35. Which of the following is not a view of project assurance in a PRINCE2 project?

a. User.
b. Specialist.
c. Business.
d. Software.
e. All of the above.

36. Which of the following are claimed as advantages of the AON method over the AOA method of network diagram notation?

a. Most computer software uses the AON approach.
b. AON does not need dummy activities to maintain the relationship logic.
c. AON diagrams have a clearer notation than AOA.
d. There has been historically greater use of the AON method.
e. The first, second and third answers.
37. Which of the following is especially useful for monitoring project progress against plan?

   a. Capacity loading graphs.
   b. Network diagrams.
   c. Gantt charts.
   d. Flow diagrams.
   e. All of the above.

38. Which of the following is not a reason to reduce project completion time?

   a. Release resources for other projects.
   b. Avoid penalties for late completion.
   c. Gain incentives for early completion.
   d. Eliminate project critical path.
   e. Reduce new product development time to market.

39. Which of the following is the benefit of the network analysis approach?

   a. Allows progress to be monitored against plan.
   b. Avoid need to use structured approach.
   c. Derive error free forecasts.
   d. Eliminate need for management judgement.
   e. None of the above.

40. A Gantt chart indicates:

   a. the sequence of activities.
   b. elapsed time of different activities on project.
   c. activities occurring in parallel.
   d. overall elapsed time on project.
41. A project can be considered to have failed if it:

a. was significantly over budget.
b. does not meet the business requirements.
c. overran significantly on estimated delivery date.
d. does not meet the users' requirements.
e. none of the above.

Ans. 32 to 41

32. e
33. b
34. e
35. d
36. e
37. c
38. d
39. a
40. a
41. b

42. For each activity PERT analysis requires

a. an optimistic time
b. a most probable time
c. a pessimistic time
d. all of the above
43. Three phases involved in the management of large projects are

   a. planning, scheduling, evaluating
   b. scheduling, operating, evaluating
   c. scheduling, designing, operating
   d. planning, scheduling, controlling

44. Popular approaches to project scheduling include

   a. Gantt chart
   b. PERT
   c. CPM
   d. all of the above

45. With respect to PERT and CPM, slack

   a. marks the start or completion of a task
   b. is a task or subproject that must be completed
   c. is the amount of time a task may be delayed without changing the overall project completion time
   d. is the latest time an activity can be started without delaying the entire project.

46. A dummy activity is required when
a. the network contains two or more activities that have identical starting and ending events
b. two or more activities have the same starting events
c. two or more activities have the same ending events
d. two or more activities have different ending events

47. Which of the following is not a basic assumption of PERT?

a. no activity in the network may be repeated
b. each activity in the network must be performed
c. activity completion times are described by Beta probability distributions
d. all of the above are basic assumptions of PERT

48. PERT analysis computes the variance of the total project completion time as

a. the sum of the variances of all activities in the project
b. the sum of the variances of all activities on the critical path
c. the sum of the variances of all activities not on the critical path
d. the variance of the final activity of the project

49. Critical path analysis is used to determine

a. the earliest activity start time
b. the latest activity start time
c. activity slack time
d. all of the above
50. The critical path of a network is the
   a. shortest time path through the network
   b. path with the fewest activities
   c. path with the most activities
   d. longest time path through the network

51. Which of the following is a direct responsibility of the project manager? [Hint]
   a. ensuring that all necessary activities are finished in the proper sequence and on time
   b. keeping the project within budget
   c. making sure that the people assigned to the project receive the motivation, direction, and information needed to do their jobs.
   d. all of the above

52. Which of the following in an AON network diagram designate activities?
   a. activity-on-arc
   b. activity-on-node
   c. Gantt chart
   d. all of the above

53. Dummy activities
54. Which of the following is a limitation of PERT and CPM?

a. Graphical displays using networks help to quickly perceive relationships among project activities
b. they are applicable to a wide variety of projects and industries
c. there is inherent danger of too much emphasis being placed on the critical path
d. they are useful in monitoring not only schedules, but costs as well

55. An activity has an optimistic time of 4 days, a most likely time of 7 days, and a pessimistic time 13 days. What is its expected time?

a. 4 days
b. 7 days
c. 7.5 days
d. 8 days

56. An activity has an optimistic time of 4 days, a most likely time of 7 days, and a pessimistic time 13 days. What is its variance?

a. 1.5
b. 2.25
c. 7.5
d. 13.5
Effective software project management focuses on four P's which are

a. people, performance, payoff, product
b. people, product, performance, process
c. people, product, process, project
d. people, process, payoff, product

Organizations that achieve high levels of maturity in people management have a higher likelihood of implementing effective software engineering processes.

a. True
b. False

59. The first step in project planning is to
   a. determine the budget.
   b. select a team organizational model.
   c. determine the project constraints.
   d. establish the objectives and scope.

60. Process framework activities are populated with
   a. milestones
   b. work products
   c. QA points
   d. All of the above

61. Project management is less important for modern software development since most projects are successful and completed on time.
   a. True
   b. False

62. Which of the following is not generally considered a player in the software process?
   a. customers
   b. end-users
   c. project managers
   d. sales people

63. The best person to hire as a project team leader is the most competent software engineering practitioner available.
   a. True
   b. False
64. The best project team organizational model to use when tackling extremely complex problems is the
   a. closed paradigm
   b. open paradigm
   c. random paradigm
   d. synchronous paradigm

65. Which factors should be considered in choosing the organizational structure for a software team? (Select all that apply)
   a. degree of communication desired
   b. predicted size of the resulting program
   c. rigidity of the delivery date
   d. size of the project budget
   e. a, b, and c

66. One of the best ways to avoid frustration during the software development process is to
   a. give team members more control over process and technical decisions.
   b. give team members less control over process and technical decisions.
   c. hide bad news from the project team members until things improve.
   d. reward programmers based on their productivity.

67. Small agile teams have no place in modern software development.
   a. True
   b. False

68. Which of these software characteristics is not a factor contributing to project coordination difficulties?
   a. interoperability
   b. performance
   c. scale
   d. uncertainty
69. Which of these software characteristics are used to determine the scope of a software project?

a. context, lines of code, function
b. context, function, communication requirements
c. information objectives, function, performance
d. communications requirements, performance, information objectives

70. The major areas of problem decomposition during the project scoping activity are the

a. customer workflow
b. functionality to be delivered
c. process used to deliver functionality
d. software process model
e. both b and c

71. Product and process decomposition often occurs simultaneously as the project plan evolves.

a. True
b. False

72. When can selected common process framework activities be omitted during process decomposition?

a. when the project is extremely small in size
b. any time the software is mission critical
c. rapid prototyping does not require their use
d. never—the activities should always occur

73. How does a software project manager need to act to minimize the risk of software failure?

a. double the project team size
b. request a large budget
c. start on the right foot
d. track progress
e. both c and d
74. The W5HH principle contains which of the following questions?

   a. Why is the system being developed?
   b. What will be done by whom?
   c. Where are they organizationally located?
   d. How much of each resource is required?
   e. a, c, and d

75. Which of these are critical practices for performance-based project management?

   a. assessing product usability
   b. defect tracking against quality targets
   c. empirical cost estimation
   d. formal risk management
   e. b, c, and d

**Ans. 57 to 75**

57. c
58. a
59. d
60. d
61. b
62. d
63. b
64. b
65. e
66. a
67. b
68. b
69. c
70. e
71. a
72. d
73. e
74. e
75. e