1) During estimation we assume resources will be productive for more than 80 percent of their time.
    a) True
    b) **False**

2) Milestones are points in the schedule to assess progress.
    a) **True**
    b) False

3) Deliverables are work products delivered to the customer.
    a) **True**
    b) False

4) One of the scheduling problems is to estimate time and resources for each task in the project.
    a) True
    b) **False**

5) One of the scheduling activities is to minimize dependencies between tasks in the project.
    a) **True**
    b) False

6) As the number of rounds in the Wideband Delphi Estimation decreases the range of estimation will be narrower, and Results are converged to an acceptable range.
    a) True
    b) **False**

7) The moderator generates a detailed WBS (Wideband Delphi Estimation Sheet), estimates each task in the WBS, and documents the assumptions made.
    a) True
    b) **False**

8) Estimation team members prepare a structured document containing problem specification, high level task list, assumptions, and the units of estimation that are decided.
    a) True
    b) **False**

9) The algorithmic cost modelling is based on experience of past project and application domain.
    a) True
    b) **False**

10) The size of the project is affected by the reused components and the programming language.
    a) **True**
    b) False

11) Doubling the number of staff means that the duration of the project will be halved.
    a) True
    b) **False**

12) If 4 people can complete a project in 13 month, then 5 people can complete it in 11 month.
    a) True
    b) **False**

13) Estimation determines how much of the following it will take to build a specific system or product
- a) Experience
- b) Knowledge
- c) **Resources**
- d) Identified Risks

14) The four basic steps in Software Project Estimation are
- a) **Size, effort, schedule, and cost**
- b) Input data, calculations, historical data, and good plan.
- c) Experience, Assumptions, Identified Risks, and Available Documents
- d) Money, time, resources, and effort

15) Important factors that affect the accuracy of estimates are
- a) **Accuracy of input data, accuracy of calculation, how historical or industry data matches the project, and carefully planned project.**
- b) Size, effort, schedule, and cost
- c) Experience, Assumptions, Identified Risks, and Available Documents
- d) Money, time, resources, and effort

16) One of the following is a pricing strategy
- a) Contractual terms
- b) Market opportunity
- c) **Under pricing**
- d) Proposal planning

17) One of the following affects software pricing
- a) Development plan
- b) Pricing to win
- c) Increased pricing
- d) **Requirements volatility**

18) One of the planning stages
- a) Requirement volatility
- b) Contingency planning
- c) Market opportunity
- d) **Proposal planning**

19) Which of the of the following sub-models in the COCOMO method is based on the number of application points
- a) Early design model
- b) Reuse model
- c) Post architectural model
- d) **Application decomposition model**

20) Which of the of the following sub-models in the COCOMO method is based on the number of function points
- a) **Early design model**
- b) Reuse model
- c) Post architectural model
- d) Application decomposition model

21) **Which of the of the following sub-models in the COCOMO method is based on the number of lines reused or generated**
   a) Early design model
   b) **Reuse model**
   c) Post architectural model
   d) Application decomposition model

22) **Which of the of the following sub-models in the COCOMO method is based on the number of lines of source code**
   a) Early design model
   b) Reuse model
   c) **Post architectural model**
   d) Application decomposition model

23) **In a use case, transactions are classified as simple if their number is**
   a) **≤ 3**
   b) ≥ 3
   c) ≤ 7
   d) ≥ 7

24) **In a use case, transactions are classified as complex if their number is**
   a) ≤ 3
   b) ≥ 3
   c) ≤ 7
   d) **≥ 7**

25) **In a use model, actors are classified as complex if**
   a) There is no interaction with the system
   b) **user interacting through GUI**
   c) user interacting through API
   d) interacting through a protocol

26) **In a use case model, actors are classified as average if**
   a) There is no interaction with the system
   b) User interacting through GUI
   c) User interacting through API
   d) **User interacting through a protocol**

27) **In the Wideband Delphi Estimation, the process is stopped after**
   a) Certain number of rounds and Achievement of consensus
   b) Achievement of consensus and Stability of results
   c) Stability of results, Achievement of consensus, and Certain number of rounds
   d) **Certain number of rounds, achievement of consensus, or stability of results**

28) **The Unadjusted Use-Case Points (UUCP) must be adjusted for**
   a) Estimation sheet, Technical and Environmental Complexity
   b) Environmental Complexity and Estimation sheet
   c) **Technical Complexity, and Environmental Complexity**
   d) Technical Complexity and Estimation sheet

29) **The factors affecting the size of the project are**
   a) Reused components and Programming languages, and application domain
   b) Programming languages and application domain, and Reused components
   c) System distribution, application domain, and Programming languages
   d) **Reused components, Programming languages, and System distribution**

30) In the following project duration equation B = 1.17, PM = 50

    a) 13 months

    b) 11 months

    c) **12 months**

    d) 14 months

31) If the scale factors affecting the exponent B in the effort equation are given as precedentedness = 2, development flexibility = 4, risk resolution = 4, team cohesion = 4, process maturity = 3. If B is given by the following equation, its value will be: [B = (sum of scale factors/100) + 1.01

    a) **1.18**

    b) 1.17

    c) 0.18

    d) 1.19

32) If the cost drivers affecting the multiplier M in the effort equation are given as reliability = 1.4, complexity = 1.3, memory constraint = 1.2, schedule = 1.3, tool use = 1.2. The value of M will be

    a) 6.4

    b) **3.4**

    c) 3.9

    d) 2.2

33) In the effort equation PM = A x SizeB x M, A = 2.49, Size = 230000 LOSC, B=1.16, M = 3.2, the effort estimate without cost drivers will be

    a) **1367**

    b) 4374

    c) 1524

    d) 5182

34) In the effort equation PM = A x SizeB x M, A = 2.49, Size = 230000 LOSC, B=1.16, M = 3.2, the effort estimate with cost drivers will be

    a) 1367

    b) **4374**

    c) 1524

    d) 5182

35) If the weights of simple, average, and complex use cases are 5, 10, and 15 respectively and number of simple, average, and complex use cases are 8, 12, and 6 respectively, then the unadjusted use case weight will be

    a) 30

    b) 56

    c) 780

    d) **250**

36) If the weights of simple, average, and complex actors are 1, 2, and 3 respectively and number of simple, average, and complex actors are 5, 4, and 6 respectively, then the unadjusted actor weight will be

    a) 21

    b) **31**

    c) 90

    d) 720

37) If the unadjusted use case weight is 280 and the unadjusted actor weight is 40 then the unadjusted use case points will be

    a) 11200

    b) 7

    c) **320**

    d) 1120

38) If the technical complexity factor = 0.8, the environmental complexity factor = 0.9, and the unadjusted use case points = 325 then the adjusted use case points will be

    a) **234**

    b) 326.7

    c) 191

    d) 552

39) You should count things that have low correlation with the size of the software you're estimating.

    a) True

    b) **False**

40) The biggest influence on a project estimate is the size of the software.

    a) **True**

    b) False

41) Expert judgment is the most accurate means of estimation.

    a) True

    b) **False**

42) <mark>It is a good practice to tweak computed estimates to conform to your expert judgment.</mark>

    a) True

    b) **False**

43) Productivity is usually determined at the project-level.

    a) True

    b) **False**

44) Setting an anchor is the basic issue regarding off-the-cuff estimates.

    a) **True**

    b) False

45) A task estimate of 30 hours is considered a good estimate.

    a) True

    b) **False**

46) User stories can be counted …

    a) **Early in the project**

    b) In the middle of the project

    c) Late in the project

    d) All of the above

47) You have 100 open defects, and you know that the 50 defects you've fixed so far have averaged 2 hours per defect, the remaining effort is … hours.

    a) 50

    b) 100

    c) 150

    d) **200**

48) ... doesn't supports the creation of accurate estimates.

    a) Project Data

    b) Organizational Data

    c) **Industry-Average Data**

    d) All of the above

49) In medium and large projects, individual capabilities matter ... organizational characteristics.

    a) the same as

    b) **less than**

    c) more than

    d) None of the above

50) Given that workday is 8 hours, and employees work 5 days a week, then one calendar-week is equal to ... hours.

    a) 40

    b) 144

    c) **168**

    d) None of the above

51) Counting unpaid overtime is an issue of measuring ...

    a) All of the above

    b) Schedule

    c) **Effort**

    d) Size

52) If the team velocity is 2 story points per staff-week, then the estimated effort for the next 50 story points will be ... staff-weeks.

    a) **25**

    b) 50

    c) 75

    d) 100

53) For task-level estimates, the team leads tend to ... the tasks.

    a) **Underestimate**

    b) Overestimate

    c) Both

    d) None of the above

54) Single-point estimates tend to be close to the ... estimate.

    a) **Best case**

    b) Worst case

    c) Most-likely case

    d) All of the above

55) Summing task durations is ... with cost and schedule overruns.

    a) positively correlated

    b) **negatively correlated**

    c) not correlated

    d) None of the above

56) The "Law of Large Numbers" says that if you estimate one big thing, you are going to have some error on that estimate ...

    a) **All on the high OR the low side**

    b) All on the high side

    c) All on the low side

    d) Evenly balanced between the high and low sides

57) Estimation in the narrow end of the cone of uncertainty means ...
- a) Early in the project
- b) **Late in the project**
- c) In the middle of the project
- d) Anytime in the project

58) A project is midway and the team has created 10 database tables. It is a good practice to use that number as a base for estimating the remaining of the project.
- a) True
- b) **False**

59) A company staff has to work 8 hours per day for 5 days in the week. This means that a staff week in this company is equal to ... hours
- a) **40**
- b) 120
- c) 144
- d) 168

60) Tasks should be counted ... in the development cycle
- a) Early
- b) **Late**
- c) In the middle of
- d) All of the above

61) The use of ... to create estimates is positively correlated with cost and schedule overruns
- a) historical data
- b) simple arithmetic formulas
- c) **guessing and intuition**
- d) None of the above

62) In most organizations, the project manager can decide to use better development methods and newer technologies.
- a) True
- b) **False**

63) Story points are measured in ...
- a) hours
- b) days
- c) weeks
- d) **None of the above**

64) You should never mix calendar time with ideal time when making project estimates.
- a) **True**
- b) False

65) Software development is the process of making increasingly ... decisions
- a) **smaller**
- b) bigger
- c) different
- d) difficult