Q1. What is the appropriate pairing of items in the two columns listing various activities encountered in a software life cycle?

P. Requirements Capture   1.Module Development and Integration
Q. Design   2.Domain Analysis
R. Implementation   3.Structural and Behavioral Modeling
S. Maintenance   4.Performance Tuning

    A. P-3, Q-2, R-4, S-1
    B. P-2, Q-3, R-1, S-4
    C. P-3, Q-2, R-1, S-4
    D. P-2, Q-3, R-4, S-1

Answer: B

Q2. Following software techniques were introduced by Dr. Barry Boehm
    A. Spiral SDLC Model
    B. Agile SDLC Model
    C. COCOMO model
    D. Gantt Chart

Answer: A, C

Q3. In the spiral model 'risk analysis' is performed
    A. In the first loop
    B. In every loop
    C. Before using the spiral model
    D. in first and second loop

Answer: B

Q4. Select the life cycle models which lacks the characteristics of iterative software development?
    A. Spiral model
    B. V-Model
    C. Classical waterfall model
    D. Evolutionary model

Answer: B, C

Q5. Which one is not correct for the V life cycle model?
    A. Model usually leads to a shorter testing phase and an overall faster product development
    B. The quality of the test cases are usually better.
    C. V model improves the customer interaction as compared to the Waterfall model.
    D. The test team is reasonably kept occupied throughout the development cycle

Answer C

Q6. Select the shortcomings of the waterfall model?
    A. Difficult to accommodate change requests
    B. Incremental delivery not supported
    C. Phase overlap not supported
    D. Limited customer interactions

Answer: ABCD

Q7. Which one of the following SDLC models would be suitable for use in a project involving customization of a computer communication package? Assume that the project would be manned by experience personnel. The schedule for the project has been very aggressively set?
   A. Spiral model
   B. Iterative waterfall model
   C. V model model
   D. Agile model

Answer: D

Q8. Which of the following activity (ies) spans all stages of a software development life cycle (SDLC)?
   A. Coding
   B. Testing
   C. Project management
   D. Design

Answer: C

Q9. Suppose the development time of a large software product has been estimated to be one and half year, then in order to develop the product in six months, what will be total increase in development effort? (Use Putnam's model)
   A. 3 times
   B. 6 times
   C. 9 times
   D. 81 times

Answer: D

Q10. Suppose the development time of a large software product has been estimated to be one year, then in order to develop the product in six months, what will be total increase in development effort? (Use Jensen's model)
   A. 2 times
   B. 4 times
   C. 16 times
   D. 8 times

Answer: B

Q11. What is the correct order in which a software project manager estimates various project parameters while using COCOMO:
   A. Cost, effort, duration, size
   B. Cost, duration, effort, size
   C. Size, effort, duration, cost
   D. Size, cost, effort, duration

Answer: C

Q12. For a certain software development project, an effort estimation of 100 person- months was arrived by using COCOMO model. This implies that the project needs to be completed by:
   A. Employing 100 persons for 1 month

B. Employing 1 person for 100 months
C. Employing 10 persons for 10 months
D. The number of persons employed over different project phases would correspond to Raleigh distribution

Answer: D

Q13. Consider a software project with the following information domain characteristic for calculation of function point metric.
Number of external inputs (I) = 30
Number of external output (O) = 60
Number of external inquiries (E) = 23
Number of files (F) = 08
Number of external interfaces (N) = 02
It is given that the complexity weighting factors for I, O, E, F and N are 4, 5, 4, 10 and 7, respectively. It is also given that, out of fourteen value adjustment factors that influence the development effort, four factors are not applicable, each of he other four factors have value 3, and each of the remaining factors have value 4. The computed value of function point metric is _____
   A. 612.06
   B. 212.05
   C. 305.09
   D. 806.9
Answer: (A)

Q14. How is an application's "version" different from its "release"?
   A. A release is a small change to an earlier release.
   B. A version is a small change made to an earlier release.
   C. A release is essentially the same as a version.
   D. A release is the one made available to customers whereas versions are for internal use.
Answer: A

Q15. If a software product of size S takes m months to develop, then according to the COCOMO estimation model, how long (in months) will it take to develop a product of size 2 × S?
   A. Greater than 2 × m months
   B. Greater than 3 × m months
   C. Less than 2 × m months
   D. Greater than 4 × m months
Answer: C

Q16. Assume that the size of an organic type software product has been estimated to be 30,000 lines of source code. Assume that the average salary of a software developer is Rs. 15,000 per month. Determine the effort required to develop the software product.
Answer: 85.34, 85, 85.3

Q17. A software requirements specification (SRS) document should discuss?
   A. Functional requirements
   B. Non-functional requirements
   C. Design specification
   D. Constraints on the implementation

Answer: A,B,D

Q18. What is the first step of requirement elicitation?
    A. Identifying stakeholder
    B. Listing out Requirements
    C. Requirements Gathering
    D. Review of the requirements
Answer: A

Q19. The SRS is said to be consistent if and only if_____
    A. Its structure and style are such that any changes to the requirements can be made easily while retaining the style and structure
    B. Every requirement stated therein is one that the software shall meet
    C. Every requirement stated therein is verifiable
    D. Requirement does not conflict with other requirements in the requirement specification
Answer: D

Q20. Select the characteristics of a good SRS
    A. Concise
    B. Wishful thinking
    C. Traceability
    D. Modifiable
Answer: ACD