SE ASSIGNMENT - 1

[A]   Answer the following questions.

- What is the disadvantage of the Spiral Model.
  (A) It does not work well for smaller projects
  (B) The high amount of risk analysis
  (C) Additional Functionality can be added later
  (D) Strong approval and documentation control
  (E) both (A) & (B)

- Process model selection is based on _____.
  (A) Requirements
  (B) Development team & users
  (C) Project type & associated risk
  (D) All of the above

- There is a need of Software Engineering in case for _____.
  (A) Large Software
  (B) Cost Reduction
  (C) Software Quality Management
  (D) All of the above

- Choose the correct option according to given statements.
  Statement 1: Umbrella activities are independent of any one framework activity and occur throughout the process.
  Statement 2: software quality assurance, software configuration management are umbrella activity.
  Statement 3: software quality assurance, software configuration management are not umbrella activity.
  (A) Only statement 1 is correct
  (B) Statement 1 and statement 2 are correct
  (C) Only statement 3 is correct
  (D) Statement 1 and statement 3 are correct

- In which following model the project risk factor is considered?
  (A) Spiral model
  (B) Waterfall model
  (C) Prototyping model
  (D) incremental model

- The prototyping model of software development is _____.
  (A) A reasonable approach when requirements are well defined.
  (B) A useful approach when a customer cannot define requirements clearly.
  (C) The best approach to use for projects with large development teams.
  (D) A risky model that rarely produces a meaningful product.

- The concurrent development model is _____.
  (A) Only used for development of parallel or distributed systems.
  (B) Defines events that trigger engineering activity state transitions.
  (C) Both (A) & (B)
  (D) None of the above

- Which of these are standards for assessing software processes?
  (A) SEI
  (B) ISO 9000
  (C) SPICE
  (D) All of the above

- A good software development team always uses the same task set for every project to insure high quality work products [State: True/ False and Justify]
- Company has latest computers and state-of the- art software tools, so we shouldn't worry about the quality of the product. [State: True/ False and Justify]
- COCOMO stands for _____.
- CMM stands for _____.

[B]   Explain Waterfall model in software engineering.
[C]   Consider a software company named QWERTY needs to develop a project that is estimated as 100 function. The company is planning to use JAVA as the programming language whose approximate lines of code per function is assumed to be 500. One developer is estimated to cost at Rs. 20000/- per month.
Consider a1 = 1.4, a2 = 1.0 for the basic COCOMO effort equation and b1=3.0, b2=0.33 for duration equation, calculate approximately how long does the project take to complete.
[D]   List and explain different layers in software engineering layered architecture.
[E]   Explain Prototype process model with the help of an example.
[F]   Discuss Generic Process Model in detail
[G]   Write a note on personal software process.
[H]   Explain Unified process model in detail with help of diagram.
[I]   Explain Component-Based Development in software engineering