(3 Hours)   [Total Marks: 80]

NOTE: (1) **Question number 1 is compulsory.**
(2) **Attempt any three questions from the remaining.**
(3) **Assume suitable data wherever necessary.**

Q1. Solve any Four out of Six.(Each question carries 5 marks)   **(20)**
   (a) Describe the characteristics, nature of software and explain the layered structure of software Engineering?
   (b) Explain Prototyping concept required in Spiral software Process Model?
   (c) Explain about Object based Estimation Technique?
   (d) Explain the Golden rules of User- interface design?
   (e) Discuss about Software Reengineering and Reverse Engineering?
   (f) Explain Mc Calls Quality factors?

Q2. (a) Explain Scrum Agile Development Model and Scrum Process in Detail?   **(10)**
   (b) Explain what is a V-Model? And discuss any one type of Incremental process models?   **(10)**

Q3. (a) Explain The Design Model, and draw deployment diagram, swim lane diagram for Online shopping ?   **(10)**
   (b) Explain about refactoring, cohesion and coupling also benefits of high cohesion and low coupling?   **(10)**

Q4. (a) Explain Earned value Analysis? Find project EAC, ETC, where AC is 15000, BAC is 22000, EV IS 13000,CPI is 0.8?   **(10)**
   (b) Explain about COCOMO II Model with example?   **(10)**

Q5. (a) Explain about Project scheduling and any one tracking Technique with example? **(10)**
   (b) Explain change control process in SCM in detail?   **(10)**

Q6. (a) Explain what is a risk? Different types of risk? And describe RMMM in detail? **(10)**
   (c) Explain the principles of software testing? Discuss the in detail difference between black box and white box testing technique?   **(10)**

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