Q.1  
  a. What are the disadvantages of prototyping?
  
  b. What is CASE (Computer-Aided Software Engineering)? Briefly explain.
  
  c. When and how a Decision Table is created?
  
  d. Define structure chart. Is it same as flow chart?
  
  e. Why stores are required in DFD?
  
  f. What are the goals of testing?
  
  g. Briefly explain the terms Verification & Validation.  

Q.2  
  a. Explain the spiral model in detail. Why this model is known as meta-model.  

  b. Explain the following statements:
     (i) Software is developed or engineered; It is not manufactured in the classical sense.
     (ii) Software doesn’t wear out.

  c. What are the 5 levels of CMM? Briefly explain.

Q.3  
  a. What is a DFD? Discuss various components of a DFD. What do you understand by levelling of DFD?

  b. What is Software Requirement Specification (SRS)? What are the characteristics of a good SRS document?

Q.4  
  a. How coupling and cohesion are correlated with each other? Explain different types of cohesion.
b. State advantages of object oriented design. What are the important features that characterise a good object oriented design? (8)

Q.5  
   a. Explain Unit, Integration and System testing strategies clearly stating their purpose, differences and dependence. (10)

   b. What is the purpose of Basis Path Testing? Define Independent program path. (8)

Q.6  
   a. What is software Re-engineering? Discuss various activities involved in software Re-engineering process. (10)

   b. Explain the objectives of CASE tools. Discuss any two CASE tools and their purpose. (8)

Q.7  
   a. Write notes on any **TWO** of the following:

      (i) COCOMO model
      (ii) Delphi cost estimation
      (iii) Function point metric (5×2)

   b. Draw the project network and determine the critical Path for the following activities (8)

<table>
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<tr>
<th>Activity</th>
<th>Predecessor(s)</th>
<th>Duration (days)</th>
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<tr>
<td>A</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>B</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>C</td>
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<td>3</td>
</tr>
<tr>
<td>D</td>
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