[5058]-162
T.E.(IT)
SOFTWARE ENGINEERING
(2008 Course) (Semester - I) (310253)

Time : 3 Hours]   *[Max. Marks : 100*

Instructions to the candidates:

    1)   *Answers to the two sections should be written in separate answer books.*

    2)   *From section I answer Q.1 or Q.2, Q.3 or Q.4, Q.5 or Q.6, and answer Q.7 or Q.8, Q.9 or Q.10, Q.11 or Q12.*

    3)   *Neat diagrams must be drawn wherever necessary.*

    4)   *Figures to the right indicate full marks.*

SECTION-I

Q1) a)   Define software engineering. What are the software characteristics? What are the various categories of software? **[10]**

      b)   State and explain customer's myths. **[4]**

      c)   Explain in detail software crises. **[4]**

OR

Q2) a)   What is software process model? Explain the incremental process model. **[8]**

      b)   Explain in detail process pattern. **[6]**

      c)   What are the management myths? **[4]**

Q3) a)   Explain the scenario based elements of analysis model in detail. **[8]**

      b)   Explain in detail requirement engineering task. **[8]**

OR

Q4) a)   What are the characteristics that requirement must meet? **[6]**

      b)   Draw and explain the traceability table for requirement management. **[6]**

      c)   Describe two real time situation in which the customer and the end user is same. Describe two situation in which they are different. **[4]**

Q5) a)   What are the design quality guidelines? **[8]**

      b)   What are the elements in data design? What are the guidelines for the data design? **[8]**

OR

Q6) a)   Explain the Web Application Architecture. **[8]**

      b)   What are the interface design principles and guidelines? **[8]**

SECTION-II

Q7) a) What is importance of testing practices? What are the principles of testing practices?. **[8]**

b) Explain in detail:
   i) Top-down integration testing.
   ii) Bottom-up testing. **[8]**

OR

Q8) a) What is cyclomatic complexity? How is it determined for a flow graph? Illustrate with example. **[8]**

b) Explain following testing types **[8]**
   i) Validation testing.
   ii) Acceptance testing.
   iii) Somke testing.

Q9) a) What are the categories of stakeholders? What are the characteristics of effective project manager? **[8]**

b) What are the attributes of effective software metrics? Explain in detail Defect Removal Efficiency. **[8]**

OR

*Q10)*a) How do you measure software quality in terms of maintainability and integrity? **[6]**

b) What is Object Oriented metric? **[6]**

c) Explain size oriented metric? What data should we collect to derive size oriented metrics? **[4]**

*Q11)*a) What are the software quality factors? Explain any four. **[12]**

b) What are the types of risks? Explain in brief. **[6]**

OR

*Q12)*a) What is configuration audit? What is status reporting? **[8]**

b) Write Short note on:
   i) RMMM
   ii) Change control process **[10]**

✓ ✓ ✓