[4758]-88

T.E. (Computer Engineering)

SOFTWARE ENGINEERING

(2008 Course) (Semester - II) (310253)

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

Instructions to the candidates:

1) *Answer 3 questions from section-I and 3 questions from section-II.*

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

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

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

5) *Assume suitable data, if necessary.*

SECTION - I

Q1) a) What is the necessity of building software using a software engineering model. How does Agile process fulfill this necessity? **[8]**

b) Explain an incremental model with workproduct of each activity. **[8]**

OR

Q2) a) Explain the following terms in brief: **[8]**

i)   Software myths

ii) Spiral model

b) Compare the process flow of waterfall model and evolutionary process models. **[8]**

Q3) a) Explain the importance of requirements engineering and list the tasks involved. **[6]**

b) Give examples of scenario-based models. How are they used in modeling requirements? **[8]**

c) What are the work products of requirement elicitation activity. **[4]**

OR

Q4) a) Discuss generic elements found in most requirements modeling approaches. **[6]**

b) How are data objects modeled? **[4]**

c) Create a CRC model for "user account management in intranet of an organization". **[8]**

Q5) a) Explain the following design concepts. **[8]**

    i) Patterns

    ii) Information hiding

    iii) Architecture

    iv) Refinement

b) Explain any two architectural styles. **[8]**

OR

Q6) a) What is Architecture? Explain the architecture context diagram. **[8]**

b) Explain design model elements. **[8]**

SECTION - II

Q7) a) List the attributes of a good test. Explain white-Box testing with an example. **[8]**

b) Explain in brief the web App testing strategies. **[8]**

OR

Q8) a) Explain the steps involved in deriving test cases for basic path testing. **[8]**

b) How are OOA and OOD models tested. **[4]**

c) Define the following: **[4]**

    i) Smoke testing

    ii) Alpha-beta testing

Q9) a) List out the constituents of stake holders in a software process. Explain role of team leaders and coordination issues in a software team. **[8]**

b) What are empirical estimation models used for? Explain any one model. **[6]**

c) How is the decision to outsource software development taken? **[4]**

OR

Q10) a) What is software quality and how is it measured? Explain a quality metric that is beneficial at process and project level . **[8]**

b) Explain the following: **[6]**

   i) Software scope

   ii) Resources and its estimation

c) Write a brief note on project metrics. **[4]**

Q11) a) Explain the use of task networks and timeline charts with examples. **[8]**

b) Explain the following in brief: **[8]**

   i) Proactive risk management

   ii) Product metrics

   iii) SCM

   iv) RMMM

OR

Q12) a) Explain risk projection and risk refinement. **[8]**

b) Discuss a technique for quantitative analysis of progress. **[8]**

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