**[5058]-160**

# T.E. (Computer Engineering)
# SOFTWARE ENGINEERING
## (2008 Course) (Semester-II) (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) *Answer three questions from section - I and three questions from section -II.*
3) *Neat diagrams must be drawn whenever necessary.*
4) *Figures to the right side indicate full marks.*
5) *Assume suitable data, if necessary.*

## SECTION-I

**Q1)** a) Define software engineering. Compare the characteristics of software and hardware engineering. **[8]**

b) Explain the activities and advantages of an evolutionary process model.**[6]**

c) What is legacy software? **[4]**

OR

**Q2)** a) Describe the activities of incremental model. **[8]**

b) Explain an agile process model. **[6]**

c) What do you mean by formal method model? **[4]**

**Q3)** a) Explain the scenario based requirements modeling with use cases. **[8]**

b) Create the DFDs up to level one for an online product ordering system.**[8]**

OR

*Q4)* a) Explain the flow of a home security system with an activity diagram.**[8]**

b) How do you model the behavior of an event driven system? Explain with an example. **[8]**

*Q5)* a) How the concepts of modularity and inheritance helps in the design of a software system. **[8]**

b) Explain the user interface design rules. **[8]**

OR

*Q6)* a) Explain the user interface design process. **[8]**

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

## SECTION-II

*Q7)* a) Explain the integration testing approaches. **[8]**

b) What is debugging? Explain the process of debugging. **[10]**

OR

*Q8)* a) Explain acceptance testing and performance testing. **[8]**

b) What is unit testing? Describe the loop testing and control structure testing. **[10]**

*Q9)* a) Explain COCOMO II project estimation method. **[8]**

b) Describe the factors influencing the project management? **[8]**

OR

*Q10)* a) Explain the quality factors of a software product. **[8]**

b) How Function Point is calculated in FP estimation method? **[8]**

*Q11)* a)  Describe the methods used in project tracking.                    **[8]**

b)  Explain the change management process.                    **[8]**

OR

*Q12)* a)  Why the risk analysis is needed? Explain the risk analysis activities.  **[8]**

b)  What is SCM? Explain SCM repository.                    **[8]**

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