Total No of Questions: [12] *SEAT NO. :* _____

[Total No. of Pages : 2]

T.E. 2008 (Software Engineering)

(Semester - I)

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 any three questions from each section.*
3) *Neat diagrams must be drawn wherever necessary.*
4) *Figures to the right side indicate full marks.*
5) *Use of Calculator is allowed.*
6) *Assume Suitable data if necessary*

SECTION I

Q1) a) Software Engineering is considered as layered technology. Comment [9]

b) Explain Agile Process Model. [9]

OR

Q2) a) What is software process model? Explain RAD model [9]

b) Explain in detail Personal and Team process model [9]

Q3) a) Explain Domain analysis. Discuss in short Data objects, cardinality and modularity in data models. [8]

b) What is meant by normal and exciting requirements? How requirements are validates? [8]

OR

Q4) a) Draw level 0, level 1, and level 2 data flow diagram for Railway reservation system. System keeps the track of ticket booking, ticket cancellation for the passengers. The system generates a report of the revenue collection for each train. [8]

b) What is meant by requirement specifications? What are the characteristics that requirement must meet? [8]

OR

Q5) a) What is Design pattern? How patterns used and designed? [8]

b) Explain the following architectural styles: 1. Data centered architecture 2. Data flow architecture [8]

OR

Q6) a) Explain various steps for User Interface Design. [8]

b) Explain Web Design Pyramid. What are Interface Design Principles for web applications? [8]

SECTION II

Q7) a) What are strategic issues in software testing? Explain in brief: 1. Recovery testing 2. Performance testing [8]

b) What is difference between verification and validation testing? [4]

c) Define Cyclomatic Complexity. What are the three ways to calculate it? [4]

OR

Q8) a) What is black box testing? What are the ways to perform black box testing? [8]

b) What is difference between testing and debugging? Explain in detail debugging [8]

process.

Q9)	a)	Explain size oriented metric. What data should we collect to derive size oriented metric?	[4]
	b)	What do you mean by DRE? What is the significance of DRE in maintaining software quality?	[4]
	c)	Explain the COCOMO-II estimation model.	[8]
		OR	
Q 10)	a)	What is the objective of software measurement? Explain the LOC based software estimation in brief.	[8]
	b)	Explain the 4P's involved in software project management. Explain the W5HH principles	[8]
Q 11)	a)	What is RMMM? Explain in detail.	[9]
	b)	What is project scheduling? What are basic principles of project scheduling?	[9]
		OR	
Q12)		Write short note on :	[18]

1. Software configuration management
2. Software quality assurance
3. Change control process