Fifth Semester B.E. Degree Examination, December 2010

Software Engineering

Time: 3 hrs.

Max. Marks: 100

Note: Answer any FIVE full questions, selecting at least TWO questions from each part.

PART-A

1	a.	What are the	attributes	of good	software?	What	are th	e key	challenges	facing software
		engineering?								(10 Marks)

Describe the general model of design process.

(06 Marks)

c. Explain the requirements engineering process, with a neat block diagram.

(04 Marks)

a. Describe four different types of non-functional requirement, which may be placed, on the systems. Give examples of each of these types of requirements. (10 Marks)

b. Describe the salient features of spiral model of software process, with an illustration diagram. (10 Marks)

a. With a neat block diagram, explain components of a CASE TOOLS for structured method 3 support. (10 Marks)

What are the most important dimensions of system dependability? b.

(06 Marks)

What is requirement elicitation and analysis? Explain.

(04 Marks)

Explain state machine model for a simple microwave oven. (10 Marks)

Write the structure of a requirement document suggest by IEEE standard.

(05 Marks)

What is object aggregation? Explain with an example.

(05 Marks)

PART-B

- a. Explain with a figure, the data flow model of an invoice processing system. (10 Marks) b. Draw and explain the sequence and state diagram for a typical weather station. (10 Marks)
- a. Explain the structure of a software test plan.

(07 Marks)

b. Give a brief description of five principles of agile methods. Discuss the advantages of pair programming.

(07 Marks) (06 Marks)

a. Explain the characteristics of clean room software development.

(07 Marks)

b. What are the characteristics of rapid software development? c. What is software prototyping? Give benefits of software prototyping.

(07 Marks) (06 Marks)

a. Differentiate between black box testing and white box testing.

(07 Marks) (07 Marks)

b. List the factors governing staff selection.

c. Name the various estimation techniques in software systems.

(06 Marks)

Important Note: 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages. Any revealing of identification, appeal to evaluator and /or

equations written eg, 42+8 = 50, will be treated as malyractice.

(06 Marks)

(07 Marks)

(07 Marks)

(06 Marks)

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Software Engineering

Time: 3 hrs.

Max. Marks:100

Note: Answer any FIVE full questions, selecting at least TWO questions from each part.

		PART-A						
1	a.							
1	a.							
	b.	Describe the general model of design process.	(10 Marks) (06 Marks)					
	c.	Explain the requirements engineering process, with a neat block diagram.	(04 Marks)					
2	a.	Describe four different types of non-functional requirement, which may be plan	ced, on the					
		systems. Give examples of each of these types of requirements.						
	b.	Describe the salient features of spiral model of software process, with an	illustration					
		diagram.	(10 Marks)					
3	a. With a neat block diagram, explain components of a CASE TOOLS for structured							
		support.	(10 Marks)					
	b.	What are the most important dimensions of system dependability?	(06 Marks)					
	c.	What is requirement elicitation and analysis? Explain.	(04 Marks)					
4	a.	Explain state machine model for a simple microwave oven.	(10 Marks)					
	b.	Write the structure of a requirement document suggest by IEEE standard.	(05 Marks)					
	c.	What is object aggregation? Explain with an example.	(05 Marks)					
		PART – B						
5	a.	Explain with a figure the data flow model of an invaige processing system	(10.34 - 1-3					
9	b.	Explain with a figure, the data flow model of an invoice processing system. Draw and explain the sequence and state diagram for a typical weather station.	(10 Marks)					
	U.	Draw and explain the sequence and state diagram for a typical weather station.	(10 Marks)					
6	a.	Explain the structure of a software test plan.	(07 Marks)					
	b.		(07 Marks)					
	c.	Discuss the advantages of pair programming.	(06 Marks)					
7	a.	Explain the characteristics of clean room software development.	(07 Marks)					
	b.	What are the characteristics of rapid software development?	(07 Marks)					

What is software prototyping? Give benefits of software prototyping.

a. Differentiate between black box testing and white box testing.

c. Name the various estimation techniques in software systems.

b. List the factors governing staff selection.