III B. Tech II Semester Regular Examinations, April - 2017 SOFTWARE ENGINEERING

(Computer Science Engineering)

Time: 3 hours Max. Marks: 70

Note: 1. Question Paper consists of two parts (Part-A and Part-B)

- 2. Answering the question in **Part-A** is compulsory
- 3. Answer any THREE Questions from Part-B

PART -A

1	a)	Describe the Characteristics of Software.	[4M]			
	b)	Write the distinct steps in requirements engineering process?	[4M]			
	c)	Explain the design steps in transaction mapping.	[4M]			
	d)	Why testing is important with respect to software?	[4M]			
	e)	How do you estimate time required for a software development project?	[3M]			
	f)	Distinguish between verification and validation.	[3M]			
	<u>PART –B</u>					
2		Elaborate on evolution of software. Give the comparison of software and software system product	[16M]			
3	a)	Explain the software requirement analysis and modeling.	[8M]			
	b)	Narrate the importance of software specification of requirements.	[8M]			
4		What is transform mapping? Explain the process with an illustration. Describe its strength and weakness.	[16M]			
5		Discuss how the testing models may be used together to test a program schedule.	[16M]			
6		Explain the need for software measures and describe various metrics.	[16M]			
7	a) b)	Describe software maintenance activities and explain the re-engineering. What is the necessity of quality assurance in software development?	[10M] [6M]			

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- 3. Answer any **THREE** Questions from **Part-B**

PART -A

1	a)b)c)d)e)f)	What are the challenges in software? What are the non-functional requirements of software? Explain the design steps of the transform mapping. State the objectives and guidelines for debugging. How do you estimate cost required for a software development project? What are the types of software maintenance? PART -B	[4M] [4M] [4M] [4M] [3M] [3M]
2		Define software engineering and Give a generic view of Software Engineering.	[16M]
3		Explain the ways and means for collecting the software requirements and how are they organized and represented?	[16M]
4		What are the characteristics of a good design? Describe different types of coupling and cohesion. How design evaluation is performed?	[16M]
5		What is black box testing? Is it necessary to perform this? Explain various test activities.	[16M]
6		Explain the need for software measures and describe various metrics.	[16M]
7	a) b)	Discuss the concept of software maintenance process. What is meant by SQA? Discuss in detail SQA activities.	[8M]

III B. Tech II Semester Regular Examinations, April - 2017 SOFTWARE ENGINEERING

SET - 3

(Computer Science Engineering)

Time: 3 hours Max. Marks: 70

Note: 1. Question Paper consists of two parts (Part-A and Part-B)

- 2. Answering the question in **Part-A** is compulsory
- 3. Answer any THREE Questions from Part-B

PART -A

1	a)	Describe the Components of Software.	[4M]			
	b)	Write the distinct steps in requirements engineering process?	[4M]			
	c)	Explain the steps in OOAD.	[4M]			
	d)	How to derive a test plan?	[4M]			
	e)	How effort is measured? explain	[3M]			
	f)	What are the types of reengineering activities?	[3M]			
	PART -B					
2		Compare the incremental model and the spiral model.	[16M]			
3		Describe various prototyping techniques and object oriented analysis and modeling principles.	[16M]			
4		What is transform mapping? Explain the process with an illustration. What is its strength and weakness?	[16M]			
5		Explain black box testing methods and its advantages and disadvantages.	[16M]			
6		Explain in detail about COCOMO model.	[16M]			
7	a)	What is software maintenance? How to control maintenance cost?	[8M]			
	b)	What is meant by software quality? Give an overview of software quality factor.	[8M]			
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III B. Tech I Semester Regular Examinations, April - 2017

SOFTWARE ENGINEERING

(Computer Science Engineering)

Time: 3 hours Max. Marks: 70

Note: 1. Question Paper consists of two parts (Part-A and Part-B)

- 2. Answering the question in **Part-A** is compulsory
- 3. Answer any **THREE** Questions from **Part-B**

PART -A

1	a)	What are the advantages of software over hard ware?	[4M]			
	b)	Distinguish between expected requirements and excited requirements	[4M]			
	c)	Give the comparison of transaction mapping and transform mapping	[4M]			
	d)	State the objectives and guidelines for debugging.	[4M]			
	e)	How do you estimate effort required for a software development project?	[3M]			
	f)	Distinguish between bug and error.	[3M]			
	PART –B					
2	a)	Define software. List and explain about the elements of a software process.	[8M]			
	b)	With suitable illustration explain SPIRAL model.	[8M]			
3		Describe various prototyping techniques and discuss on object oriented analysis and modeling.	[16M]			
4		Explain the importance of user interface design in sale of software.	[16M]			
5		What are the various testing strategies to software testing? Discuss them briefly.	[16M]			
6		Explain the need for software measures and describe various metrics.	[16M]			
7	a)	Discuss the concept of software maintenance process.	[8M]			
	b)	What is meant by SQA? Discuss in detail SQA activities.	[8M]			