Code No: RT32051 **R13** SET - 1

III B. Tech II Semester Regular and Supplementary Examinations, April - 2018
SOFTWARE ENGINEERING
(Computer Science and 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**

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PART –A

1	a)	What are the characteristics of software?	[3M]
	b)	What is requirement elicitation?	[4M]
	c)	What is the importance of software design?	[3M]
	d)	What is the need of documenting in the software development?	[4M]
	e)	Define a risk. How to handle it?	[4M]
	f)	What is meant by good quality software?	[4M]

PART -B

2	a)	What is a myth? Give a focus on various software myths regarding Management and Practitioner.	[8M]
	b)	What are the advantages of iterative development? Compare iterative development with Incremental delivery approach	[8M]
3	a)	What are the goals of Requirement Engineering? What are the tasks performed in requirement engineering?	[8M]
	b)	Discuss the components of a Software Requirement Specification document.	[8M]
4	a)	Explain modularity, Refinement and Re - factoring in Software design process.	[8M]
	b)	Compare and contrast transform analysis with transaction analysis.	[8M]
5		Describe how Flow graph notation and cyclomatic complexity assist in testing.	[16M]
6	a)	What is a change? How it can be incorporated in the software?	[8M]
	b)	Explain size oriented metrics with suitable examples.	[8M]
7	a)	What are the different ways in which quality can be reviewed? Explain them	[8M]
	b)	What are the objectives of software Maintenance? Explain in detail maintenance metrics	[8M]

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Code No: RT32051 **R13** SET - 2

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SOFTWARE ENGINEERING
(Computer Science and Engineering)

Time: 3 hours Max. Marks: 70

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

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PART –A

1	a)	Define software engineering.	[3M]
	b)	What is the relation between analysis and design?	[4M]
	c)	What is the importance of Use-case diagram?	[3M]
	d)	What is a test case? How test suite is constructed?	[4M]
	e)	What is the need of estimation in software development process?	[4M]
	f)	Compare reengineering with reverse engineering.	[4M]

PART -B

2	a)	What do you mean by team process model and personal process model? Differentiate them.	[8M]
	b)	Explain with neat diagram the prototyping model for software development	[8M]
3	a)	Justify why requirement engineering works as a bridge between design and construction.	[8M]
	b)	Explain the need of requirement prioritization? How the requirements are prioritized?	[8M]
4	a)	How system modeling is achieved using UML? Explain with a suitable example.	[8M]
	b)	How we perform design evaluation? Explain it with suitable example.	[8M]
5		How equivalence partitioning and Boundary value analysis assist in testing? Explain.	[16M]
6		What measures and metrics can be used to assess the quality of requirements and design model, source code and test cases? Explain them.	[16M]
7	a)	What is software quality? Explain MC Calls and FURPS quality factors.	[8M]
	b)	What are formal technical reviews? How they are conducted?	[8M]

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Code No: RT32051 **R13** SET - 3

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(Computer Science and 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**

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PART –A

1	a)	What do you understand by evolutionary model?	[3M]
	b)	Describe the specifications used to specify requirements.	[4M]
	c)	What are the characteristics of object oriented design?	[3M]
	d)	What are strategic issues in software testing?	[4M]
	e)	What is an effort? How is it estimated?	[4M]
	f)	What is software reuse? How object oriented approach provides it?	[4M]

PART –B

2	a)	"Software engineering is a layered technology". Justify.	[8M]
	b)	Draw and explain the spiral model with its advantage and disadvantages?	[8M]
3	a)	Why the understanding requirements from stake holders are difficult task? Explain.	[8M]
	b)	Describe different checks to be carried out during requirements validation process.	[8M]
4	a)	What are coupling and cohesion? High cohesion and low coupling is required for efficient software. Why?	[8M]
	b)	What is modularity? For a good quality software modularity is important. Why? Justify.	[8M]
5	a)	Describe various functional and unit testing techniques in detail.	[8M]
	b)	What is the use of code verification? How code verification is carried out?	[8M]
6		Explain in detail function point metric. List all the value adjustment factors. What are the metric for specification quality?	[16M]
7	a)	Describe the role of software reviews in achieving good quality software.	[8M]
	b)	What is the difference between verification and validation? Explain with an example.	[8M]

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Code No: RT32051 **R13** SET - 4

III B. Tech II Semester Regular and Supplementary Examinations, April - 2018
SOFTWARE ENGINEERING
(Computer Science and 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**

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PART –A

1	a)	What are the advantages of iterative development?	[3M]
	b)	Compare functional and non functional requirements.	[4M]
	c)	How function oriented design is different from object oriented design?	[3M]
	d)	What is testing? How is it different from debugging?	[4M]
	e)	What is a milestone? How to set them in project planning?	[4M]
	f)	List out the steps involved in re-engineering process.	[4M]

PART -B

2	a)	What are the generic frame work activities that are present in every software process?	[8M]
	b)	Give the characteristics of software that make it separable to hardware.	[8M]
3	a)	What is the need of requirement analysis? What are the problems that arise during requirement analysis?	[8M]
	b)	What is requirement specification? Explain various ways of writing system requirements.	[8M]
4	a)	What is meant by cohesion and coupling criteria's that address the functional Independence? List all the types of cohesion.	[8M]
	b)	Write advantages of object oriented design. Explain how we can identify objects classes.	[8M]
5		Explain various structural testing techniques with suitable examples.	[16M]
6		How does software configuration management facilitate the changes that may occur during various stages of a system development life cycle? Illustrate with an example.	[16M]
7	a)	Describe the factors that influence the quality of software product	[8M]
	b)	Define maintenance. Describe various methods of estimating maintenance cost.	[8M]

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