

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

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- 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 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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R13**SET - 2****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 compulsory3. Answer any **THREE** Questions from **Part-B**

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? [8M]
Differentiate them.
- 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]

Code No: RT32051

R13**SET - 3****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 compulsory3. Answer any **THREE** Questions from **Part-B**

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]

Code No: RT32051

R13**SET - 4**

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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 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]
