

Code No: RT32051

**R13****SET - 1**

**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**

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**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] |

**PART -B**

- |   |    |  |       |
|---|----|--|-------|
| 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) | Describe software maintenance activities and explain the re-engineering.                                 | [10M] |
|   | b) | What is the necessity of quality assurance in software development?                                      | [6M]  |

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**R13****SET - 2**

**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**  
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**PART -A**

- |   |    |   |      |
|---|----|---|------|
| 1 | a) | What are the challenges in software?                                  | [4M] |
|   | b) | What are the non-functional requirements of software?                 | [4M] |
|   | c) | Explain the design steps of the transform mapping.                    | [4M] |
|   | d) | State the objectives and guidelines for debugging.                    | [4M] |
|   | e) | How do you estimate cost required for a software development project? | [3M] |
|   | f) | What are the types of software maintenance?                           | [3M] |

**PART -B**

- |   |   |       |
|---|---|-------|
| 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) Discuss the concept of software maintenance process.   | [8M]  |
|   | b) What is meant by SQA? Discuss in detail SQA activities.  | [8M]  |

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**R13****SET - 3****III B. Tech II Semester Regular Examinations, April - 2017****SOFTWARE ENGINEERING**

(Computer Science 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 compulsory3. Answer any **THREE** Questions from **Part-B**

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**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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**R13****SET - 4****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 compulsory3. Answer any **THREE** Questions from **Part-B**

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**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]  |

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