

Code No: 155GC

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD**B. Tech III Year I Semester Examinations, August/September - 2024****SOFTWARE REQUIREMENTS AND ESTIMATION****(Computer Engineering – Software Engineering)****Time: 3 Hours****Max. Marks: 75****Note:** i) Question paper consists of Part A, Part B.

ii) Part A is compulsory, which carries 25 marks. In Part A, Answer all questions.

iii) In Part B, Answer any one question from each unit. Each question carries 10 marks and may have a, b as sub questions.

PART – A**(25 Marks)**

- 1.a) What are the good practices of requirements analysis? [2]
- b) What are the fundamentals of software process improvement? [3]
- c) Define class diagram. [2]
- d) Discuss about object analysis. [3]
- e) What is function point analysis? [2]
- f) What are problems associated with estimation? [3]
- g) What is the purpose of COCOMO? [2]
- h) What are the approaches to effort and estimation? [3]
- i) Define SLIM tool. [2]
- j) Explain about Caliber RM features. [3]

PART – B**(50 Marks)**

- 2.a) List and explain requirements-related risks.
 - b) Explain about risk reduction through prototyping. [5+5]
- OR**
- 3.a) Discuss about root cause analysis in detail.
 - b) What are elicitation techniques? Explain. [5+5]
- 4.a) Explain terms and concepts of state transition diagram.
 - b) Describe requirements traceability matrix with suitable example. [5+5]
- OR**
- 5.a) Discuss about analysis models in detail.
 - b) Explain about links in requirements chain. [5+5]
6. Define software project. Explain about components of software estimations in detail. [10]
- OR**
7. Explain about Mark II FPA with suitable example. [10]

8. Discuss about Putnam estimation model with suitable example. [10]

OR

9. What is productivity? Explain about estimation factors in detail. [10]

10. Explain the following:

- a) Rational Requisite pro tool
- b) USC's COCOMO II tool.

[5+5]

OR

11. Explain the following:

- a) Desirable features in software estimation tools
- b) Implementing requirements management automation.

[5+5]

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Question Paper Aug-2024