

Code No: 155GC

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD**B. Tech III Year I Semester Examinations, July/August - 2023****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) List the software quality attributes. [2]
- b) What do you mean by requirements elicitation? [3]
- c) Define requirement chain. [2]
- d) List types of actors in a use case diagram. [3]
- e) List different estimation methods. [2]
- f) Give the formula or approach for LOC estimation. [3]
- g) How effort is measured? [2]
- h) Describe the estimation factors. [3]
- i) List the desirable features in software estimation. [2]
- j) Give the concept of COCOMO model. [3]

PART – B**(50 Marks)**

- 2.a) Explain good practices for requirement engineering.
 - b) How risk reduction can be achieved? Explain. [5+5]
- OR**
- 3.a) Explain the process of improving requirement process.
 - b) Describe requirements analysis documentation. [5+5]
- 4.a) Explain Requirements Management Principles and practices.
 - b) Develop a Usecase diagram for banking system. [5+5]
- OR**
- 5.a) Develop a Class diagram for Library management system.
 - b) Explain about use of traceability matrix. [5+5]
6. Explain different methods of size estimation of a software. [10]
- OR**
7. Explain components of software estimation and estimation methods. [10]
8. Give the approaches to effort and schedule estimation. Illustrate with an example Putnam estimation model. [10]
- OR**
9. Discuss algorithmic models for estimating cost. [10]
10. List the benefits of using a requirement management tool. [10]
- OR**
11. Explain about the purpose of International Function Points User Group (IFPUG). [10]