

R18

Code No: 154CQ

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

B. Tech II Year II Semester Examinations, February - 2024

SOFTWARE ENGINEERING

(Common to CSBS, CSIT, CSE(AI&ML), CSE(DS), AI&ML)

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 is a myth? [2]
- b) What is meant by software process? [3]
- c) Define Requirements validation. [2]
- d) What are the non-functional requirements of software? [3]
- e) Write the characteristics of a good design. [2]
- f) What is the importance of modeling? [3]
- g) How testing is different from debugging? [2]
- h) What is an effort? How it is estimated? [3]
- i) Define a risk. [2]
- j) What is meant by software reliability? [3]

PART – B

(50 Marks)

- 2.a) Draw and explain the spiral model and list the advantage and disadvantages. [5+5]
- b) Discuss in detail Software development lifecycle. [5+5]

OR

- 3.a) Give a focus on various software myths regarding Management and Practitioner. [5+5]
- b) Discuss about evolutionary process models. [5+5]

- 4.a) Discuss software requirements document in detail. [5+5]
- b) Write detailed note on Requirement Specification. [5+5]

OR

- 5.a) List and explain the techniques involved in gathering Requirements. [5+5]
- b) What is the goal of requirements analysis phase? Give reasons why the requirements analysis phase is a difficult one. [5+5]

- 6.a) Explain sequence diagram with suitable example. [5+5]
- b) Draw and explain the class diagram for an ATM bank system. [5+5]

OR

7. Explain building blocks of UML in detail. [10]

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8.a) Explain Blackbox Testing and White Box testing techniques in detail.

b) Discuss about the software metrics for small organizations.

[5+5]

OR

9.a) Discuss in detail the metrics for software maintenance.

b) Write detailed note on metrics for source code.

[5+5]

10.a) What do you mean by risk management? Explain how to select the best risk reduction technique when there are many ways of reducing a risk?

b) Explain about risk projection and risk refinement.

[5+5]

OR

11.a) What types of risks occur during software development? Discuss.

b) Write a detailed note on ISO 9000 quality standards.

[5+5]

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