

Code No: 842AE

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JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD  
MCA II Semester Examinations, March - 2023  
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 is SDLC? Give various activities during SDLC. [5]
- b) List and explain various types of Feasible Studies. [5]
- c) Discuss on fundamental Software Design Concepts. [5]
- d) What are the Objectives of Testing? [5]
- e) Explain briefly about Calculating Earned Value measures. [5]

PART – B

(50 Marks)

- 2.a) Draw and explain the CMMI model.
  - b) Explain the Software Process Framework. [5+5]
- OR**
- 3.a) What is Legacy Software? Explain briefly its impact in Software Engineering.
  - b) Discuss in detail about Evolutionary Process model. [5+5]
- 4.a) Explain the structure of Software Requirements Document.
  - b) Discuss about various structured methods used in Software Development. [5+5]
- OR**
- 5.a) Distinguish between Functional and Non-functional requirements.
  - b) Explain briefly about the Object Models. [5+5]
- 6.a) Explain how to map Data Flow into Software Architecture.
  - b) Distinguish between an Architectural Pattern and a Framework. [5+5]
- OR**
- 7.a) Discuss in detail about Architectural Styles.
  - b) Explain about the Design model at Component level. [5+5]
- 8.a) Explain the different Integration Testing approaches.
  - b) Discuss the metrics used for Software Maintenance. [5+5]
- OR**
- 9.a) Explain how to compute Cyclomatic Complexity.
  - b) Describe the framework for Software Product metrics. [5+5]
- 10.a) Elaborate on the series of tasks of a Software Configuration Management process.
  - b) Explain various Software Quality Standards and discuss how to assure them. [5+5]
- OR**
- 11.a) Define Risk. Explain the Needs and Activities or Risk Management?
  - b) Explain the factors that affect Software Quality. [5+5]

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