

**R22**

Code No: 184CG

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

B. Tech II Year II Semester Examinations, December – 2024/ January - 2025

SOFTWARE ENGINEERING

(Common to CSE, CE(SE), CSE(CS), CSE(DS), AI&DS, CSD)

Time: 3 Hours

Max. Marks: 60

**Note:** This question paper contains two parts A and B.

i) **Part- A** for 10 marks, ii) **Part - B** for 50 marks.

- Part-A is a compulsory question which consists of ten sub-questions from all units carrying equal marks.
- Part-B consists of **ten questions** (numbered from 2 to 11) **carrying 10 marks each**. From each unit, there are two questions and the student should answer one of them. Hence, the student should answer five questions from Part-B.

**PART- A**

**(10 Marks)**

- Distinguish between software process and project. [1]
- Define software engineering paradigm. [1]
- What is known as SRS review? [1]
- What is data dictionary? [1]
- What you mean by Good Software Design? [1]
- What is data design? [1]
- Will exhaustive testing guarantee that the program is 100% correct? Explain. [1]
- What are the approaches of debugging? [1]
- What is CASE? [1]
- What is the need of Risk Management? [1]

**PART - B**

**(50 Marks)**

- 2.a) Explain iterative waterfall and spiral model for software life cycle and discuss various activities in each phase.
- b) Identify the umbrella activities in software engineering process. [5+5]

**OR**

- 3.a) Compare different types of myths in Software Engineering.
- b) Discuss about Agile Methodology. [5+5]

- 4.a) Distinguish between functional and non-functional requirements.
- b) Explain about requirements elicitation and analysis. [5+5]

**OR**

- 5.a) List and explain distinct tasks of requirements engineering.
- b) Write the distinct steps in requirements engineering process? [5+5]

- 6.a) Explain in detail about architectural styles and patterns.
- b) Discuss about conceptual model of UML. [5+5]

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**OR**

- 7.a) Differentiate use case diagrams and component diagrams.
- b) Explain about collaboration diagram with example. [5+5]

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- 8.a) Explain integration testing process with an example.
- b) What are the benefits of involving users in release testing at an early stage in the testing process? Are there disadvantages in user involvement? [5+5]

**OR**

- 9.a) What do you mean by boundary value analysis? Give two examples of boundary value testing.
- b) Discuss in detail about alpha and beta testing. [5+5]

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- 10.a) Write a short note on the capability maturity model.
- b) Explain why design metrics are, by themselves, an inadequate method of predicting design quality. [5+5]

**OR**

- 11.a) Explain about the ISO 9000 quality standards.
- b) Discuss about risk projection and risk refinement. [5+5]

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