Code No: 156FU **R18**

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
B. Tech III Year II Semester Examinations, August/September - 2024
SOFTWARE ENGINEERING
(Common to CSE(CS), CSE(N))

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 primary myths about software engineering?	[2]
b)	What is incremental process model?	[3]
c)	Differentiate between user requirements and system requirements.	[2]
d)	What is the purpose of the software requirements document?	[3]
e)	What are the primary goals of the design process in software engineering?	[2]
f)	Describe the importance of use case diagrams.	[3]
g)	What is the strategic approach to software testing?	[2]
h)	What are the common debugging techniques?	[3]
i)	Define metrics for software quality.	[2]
j)	What are the ISO 9000 quality standards?	[3]

PART – B

(50 Marks)

2.a) Explain the evolving role of software in today's world.
b) Discuss the changing nature of software and its impact on software engineering practices. [5+5]

OR

3.a) Explain the process framework in software engineering with examples.
b) Discuss the various personal and team process models. [5+5]

4.a) Explain the different types of non-functional requirements with examples.
b) Explain the role and importance of the software requirements document in a software project. [5+5]

OR

5.a) Discuss the requirements elicitation and analysis process.
b) Discuss the steps involved in requirements validation. [5+5]

6.a) Discuss the design concepts that influence software design quality.
b) Explain the process of architectural design and the importance of architectural styles and patterns. [5+5]

OR

7.a) Explain the process of creating an architectural design with relevant examples.
b) Discuss the role of collaboration diagrams in software design. [5+5]

8.a) Discuss the various test strategies for conventional software.
b) Explain the various types of testing and their importance in software quality assurance. [5+5]

OR

9.a) Describe the different metrics used for design models.
b) Discuss the importance of metrics for source code and how they are measured. [5+5]

10.a) Discuss the process of software measurement and its importance.
b) Explain the steps involved in risk projection and risk refinement. [5+5]

OR

11.a) Describe the process of risk identification in software engineering.
b) Discuss the statistical software quality assurance methods and their importance in ensuring software reliability. [5+5]

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