

BACHELOR OF TECHNOLOGY (CBCS - 2023)
B. Tech. Sem-III Computer Science & Business Systems : WINTER : 2024
SUBJECT: SOFTWARE ENGINEERING

Day : Friday
Date : 13/12/2024

W-29215-2024

Time : 10:00 AM-01:00 PM
Max. Marks : 60

N.B.:

- 1) All questions are **COMPULSORY**.
- 2) Figures to the right indicate **FULL** marks.
- 3) Draw neat and labelled diagrams **WHEREVER** necessary.
- 4) Assume suitable data, if necessary.

Q. 1 Discuss the importance of software quality in the context of large-scale software development. (10)

OR

How does an engineering approach to software develop help in managing complex projects? (10)

Q. 2 What is a flexibility study and why is it important in software project management? (10)

OR

Explain technique for schedule and effort estimate in software projects. (10)

Q. 3 Differentiate between product quality and process quality in software engineering. (10)

OR

What is FURPS+ model? How does it extend the basic FURPS model? Explain in detail (10)

Q. 4 What are petri nets and how are they used in modeling system requirements? (10)

OR

Define state transition tables and explain their significance in modeling software behaviour. (10)

Q. 5 Define the principles of abstraction modularity in object-oriented design. (10)

OR

What is encapsulation and how does it relate to information hiding in object-oriented design? (10)

Q. 6 What is faults and failures in software testing? Explain the concepts of verification and validation in the software testing process. (10)

OR

Differentiate between black box and white box testing. (10)

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