

Program: S.Y.B.Sc CS Semester: IV Program Code: UGCS02
 Course: Software Engineering Course Code: NUCS402

Duration: 1 Hour Examination Pattern: NEP-Autonomous-External Max. Marks: 30

Instructions:

1. All questions are compulsory.
2. Figures to the right indicate full marks.
3. Draw neat diagrams wherever necessary.

Examination:
REGULAR

Q. 1	Attempt any TWO of the following.	[10]	Course Outcome	Knowledge Level
(a)	Explain the nature of software and discuss the key challenges in software development.		CO4	L2
(b)	Describe the layered technology of software engineering and analyze the role of each layer.		CO2	L3
(c)	Compare Waterfall and Incremental models with respect to risk and flexibility.		CO3	L4
(d)	Define Agile Manifesto and its relevance in modern software development.		CO1	L1
Q. 2	Attempt any TWO of the following.	[10]	Course Outcome	Knowledge Level
(a)	Explain coupling and cohesion and analyze their impact on software maintainability.		CO1	L1
(b)	Describe Function Point estimation and its advantages over LOC.		CO2	L3
(c)	Explain the steps involved in software project risk management.		CO4	L2
(d)	Differentiate between verification and validation with suitable examples.		CO3	L4
Q. 3	Attempt any TWO of the following.	[10]	Course Outcome	Knowledge Level
(a)	Explain the requirements engineering process and its importance in software quality.		CO1	L1
(b)	Illustrate a Use Case diagram for an online examination system.		CO2	L4
(c)	Explain software reliability and describe the contents of an SQA plan.		CO3	L2
(d)	Compare white-box and black-box testing techniques.		CO4	L3

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