

TE - ECS / sem - 7 / R-19 / SH-2024 / date - 18-11-24

ESP code: - 65912

Paper / Subject Code: 32123 / Software Engineering

Duration: 3hrs

[Max Marks:80]

- N.B.: (1) Question No 1 is Compulsory.
(2) Attempt any three questions out of the remaining five.
(3) All questions carry equal marks.
(4) Assume suitable data, if required and state it clearly.

- 1 Attempt any Four. [20]
- a Define Software Engineering, Describe in brief Umbrella activities of software development [5]
- b Explain functional and nonfunctional requirements with examples [5]
- c What are the potential problems of prototyping model? [5]
- d What are the different types of risks in software Engineering. [5]
- e Explain the Bottom Up Integration Testing [5]
- 2 a Explain McCall's query factor and SQA activities [10]
- b Explain Software design concepts in detail [10]
- 3 a What is cyclomatic Complexity? What are the different ways to calculate it. [10]
- Perform basis path testing on a program which ask user to enter 3 sides of a triangle and checks whether triangle is Isosceles, Equilateral or scalene
- b Explain LOC and FP based cost estimation model. [10]
- 4 a For a distance learning institute considering to use e learning software and different tools, develop the SRS that includes, [10]
- A)Product Perspective B)Scope and Objective C) Functional Requirements D) Nonfunctional Requirements
- b Explain with suitable diagram Xp and IXp Process [10]
- 5 a Explain with a suitable diagram SCRUM [10]
- b Demonstrate the COCOMO II Cost estimation model. [10]
- 6 a Draw the State Chart Diagram and sequence diagram for banking and ATM system [10]
- b Explain the different OO testing methods. [10]

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