

**USCST09.3 - Elective-IV - Computer Science-IV : Software Engineering**

P. Pages : 1

**GUG/W/22/13088**

Time : Three Hours



Max. Marks : 50

- Notes :
1. All questions are compulsory and carry equal marks.
  2. Draw neat and labelled diagrams wherever necessary.
  3. Avoid vague answers and write answers relevant and specific to questions only.

Either :

1. a) Discuss the Capability Maturity Model Integration in brief. **5**  
b) What is process patterns and process assessments? Explain it. **5**

**OR**

- c) Define Software Engineering. What are the role of software in software engineering. **5**  
d) What do you mean by a layered technology and process framework? **5**

Either:

2. a) Explain waterfall model in detail. **5**  
b) What is functional and non-functional requirements? Explain it. **5**

**OR**

- c) Discuss in brief user's requirements and system requirements? **5**  
d) Explain the requirements engineering process in detail. **5**

Either:

3. a) Write a note on context model. **5**  
b) Distinguish between design process and design quality. **5**

**OR**

- c) Explain software architecture in brief. **5**  
d) Define system model and explain the concept of design. **5**

Either:

4. a) What is the concept of test strategies for conventional software? **5**  
b) Explain the following terms- **5**  
i) Metrics for analysis model      ii) Metrics for design model

**OR**

- c) Write a note on metrics for source code and metrics for testing. **5**  
d) Define testing. Explain white box testing. **5**

5. Attempt all the questions.

- a) Explain the concept of changing nature of software. **2½**  
b) Write a note on requirement validation. **2½**  
c) Explain the architectural styles and patterns. **2½**  
d) What are merits for software quality? **2½**

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