

M.Sc. - I (Computer Science) (CBCS Pattern) Second Semester CBCS  
**PSCSCT08 - Software Engineering Paper-IV**

P. Pages : 2

Time : Three Hours



**GUG/W/18/11190**

Max. Marks : 80

- Notes :
1. All questions are compulsory and carry equal marks.
  2. Draw neat and labeled diagram and use supporting data whenever necessary.
  3. Avoid vague answer and write specific answer related to questions.

- 1.** Either
- a) What is software engineering? Explain the role of software engineer. **8**
  - b) Explain software Life cycle in detail. **8**
- OR**
- c) Explain classification of software qualities. **8**
  - d) Explain representative qualities of software. **8**
- 2.** Either
- a) Explain the following object oriented design. **8**
    - i) Association.
    - ii) Aggregation
  - b) Explain Top-down versus Bottom-up design. **8**
- OR**
- c) Explain seven principle of software engineering. **8**
  - d) Explain design notations in detail. **8**
- 3.** Either
- a) Explain software specification and write uses of specification. **8**
  - b) Explain what are the goals and requirement of verification. **8**
- OR**
- c) Differentiate between testing and Debugging. **8**
  - d) Explain operational Specification in detail. **8**

4. Either
- a) Explain project management and role of project manager in detail. 8
  - b) Explain spiral model in detail. 8

**OR**

- c) Explain project planning in detail. 8
  - d) Write note on waterfall model. 8
5. Solve all the following.
- a) Explain why software engineering is called as layered technology. 4
  - b) Explain UML class diagram. 4
  - c) Explain symbolic execution. 4
  - d) Write note on Risk Management. 4

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