

Total No. of Questions : 8]

SEAT No. :

PE-4265

[Total No. of Pages : 2

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**S.E. (Computer Engineering/AI & DS/Computer Science)**  
**SOFTWARE ENGINEERING**  
**(2019 Pattern) (Semester - IV) (210253)**

Time : 2½ Hours]

[Max. Marks : 70

Instructions to the candidates:

- 1) Attempt Q.1 or Q.2, Q.3 or Q.4, Q.5 or Q.6, Q.7 or Q.8.
- 2) Figures to the right indicate full marks.
- 3) Neat diagram must be drawn wherever necessary.
- 4) Assume suitable data if necessary.

- Q1)** a) Explain LOC based estimation with example. [6]  
b) What is the need of project estimation? Explain the steps for estimation of software. [6]  
c) Define timeline chart. Explain it with suitable example. [6]

OR

- Q2)** a) Compare Lines of Code(LOC) and Function Point (FP) based estimation techniques with suitable example. [6]  
b) Explain COCOMO model for project estimation with suitable example. [6]  
c) Define project scheduling. Explain basic principles of project scheduling. [6]

- Q3)** a) Explain in detail layered architecture style. [6]  
b) State and explain the golden rules of User Interface design. [6]  
c) Different between cohesion and coupling. [5]

OR

- Q4)** a) Describe the data centered architecture with merits and demerits. [6]  
b) Why software engineering should have high cohesion and low coupling? Justify. [6]  
c) List the design concepts. Explain importance of refactoring in improving the quality of software. [5]

P.T.O.

- Q5)** a) List the advantages of SCM Repository. Explain functions performed by SCM Repository. [6]
- b) Define software risk in detail. Explain the different types of software risks. [6]
- c) Explain risk identification and assessment process for software project. [6]

OR

- Q6)** a) Explain Software Configuration Management (SCM) process. [6]
- b) Discuss any two of the following. [6]
- i) Risk Refinement
- ii) Risk Mitigation
- iii) Risk Management
- c) Write a short note on change control mechanism in SCM. [6]

- Q7)** a) Define software testing. Explain software testing strategies for software development. [6]
- b) Explain any two of the following in detail : [6]
- i) System testing
- ii) Acceptance testing
- iii) Smoke testing
- c) Differentiate between verification and validation. [5]

OR

- Q8)** a) Explain integration testing and its objectives. [6]
- b) What is Test plan? Explain Validation testing in details. How configuration Review is Important? [6]
- c) Differentiate between white box and black box testing. [5]

