

Total No. of Questions : 8]

SEAT No. :

**PA-1250**

[Total No. of Pages : 2

**[5925] 273**

**S.E. (Information Technology)**  
**SOFTWARE ENGINEERING**  
**(2019 Pattern) (Semester - IV) (214454)**

*Time : 2½ Hours]*

*[Max. Marks : 70*

*Instructions to the candidates:*

- 1) *Answers Question 1 or 2, 3 or 4, 5 or 6, 7 or 8.*
- 2) *Neat diagrams must be drawn whenever necessary.*
- 3) *Figures to the right indicate full marks.*
- 4) *Assume suitable data, if necessary.*

**Q1) a)** What is Software Architecture? Explain Data flow and Layered architectural style of the system. **[9]**

b) What is functional independence? Differentiate between coupling functional independence and Cohesion functional independence. **[9]**

OR

**Q2) a)** What are the characteristics of a good design? Explain Software Quality Guidelines and Attributes of software design. **[9]**

b) Explain design concepts: **[9]**

- i) Pattern
- ii) Information Hiding
- iii) Modularity

**Q3) a)** Explain : **[9]**

- i) 4P's of Project Management
- ii) Software Project Estimation

b) What is Decomposition Technique? Explain Decomposition of Problem and Decomposition of Process. **[9]**

OR

**P.T.O.**

- Q4)** a) Explain Boehm's W<sup>5</sup>HH Principle. [5]  
b) What is the difference between PERT & CPM, state their application. What is the importance of critical path in a project? [9]  
c) Explain typical Problems with IT Cost Estimates. [4]

- Q5)** a) Explain McCall's Quality Factors. [9]  
b) Discuss Garvin's eight Quality Dimensions. [8]

OR

- Q6)** a) Explain Unit Testing? Which testing scheme is suitable to remove conflict of interest? [9]  
b) How do you justify the statement "quality is a complex and multifaceted concept". [8]

- Q7)** a) Explain any Four layers of SCM process in detail. [8]  
b) Explain CASE taxonomy. [9]

OR

- Q8)** a) Explain in brief risk mitigation, monitoring and management. [9]  
b) Write short note on: [8]  
i) JIRA  
ii) Kanban

