

Total No. of Questions : 8]

SEAT No. :

**P9112**

[Total No. of Pages : 2

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**S.E. (Computer Engineering) (Artificial Intelligence &  
Data Science Engineering)  
SOFTWARE ENGINEERING  
(2019 Pattern) (Semester - IV) (210253)**

*Time : 2½ Hours]*

*[Max. Marks : 70*

*Instructions to the candidates:*

- 1) Solve Q.1 or Q.2, Q.3 or Q.4, Q.5 or Q.6, Q.7 or Q.8.
- 2) Neat diagrams must be drawn wherever necessary.
- 3) Assume suitable data, if necessary.

- Q1)** a) Discuss with suitable diagram three major categories of software project resources? [8]
- b) What is Estimation with Use Cases? Explain Estimation Using Use Case points with the help of an Example [10]

OR

- Q2)** a) What are the basic principles of software project scheduling. Explain different tasks of project scheduling. [8]
- b) Discuss Empirical Estimation Models. Explain Constructive Cost Model for project estimation with suitable example. [10]

- Q3)** a) With the help of diagram explain how to translate the requirements model into the design model. [8]
- b) Explain dimensions of design model with the help of diagram. [9]

OR

- Q4)** a) What is software Architecture? Why Architecture is important? What is the use of Architecture Decision Description Template? [9]
- b) Discuss component level and deployment level design elements. [8]

**P.T.O.**

- Q5) a)** Explain Risk and management concern with the help of diagram. [8]
- b)** Discuss any two of the following. [10]
- i) Risk Refinement
  - ii) Risk Mitigation
  - iii) Risk Management

OR

- Q6) a)** What are the advantages of SCM Repository? Explain functions performed by SCM Repository. [8]
- b)** Write short note on any two of the following [10]
- i) Change control mechanism in SCM
  - ii) SCM Process
  - iii) RMMM Plan

- Q7) a)** Define testing? Explain graph based functional testing techniques with suitable graph notation diagram. [9]
- b)** Discuss any two of the following. [8]
- i) User Acceptance Testing
  - ii) Difference between Verification and validation Testing
  - iii) Software Testing Life Cycle

OR

- Q8) a)** What is system testing? Explain any three types system testing. [8]
- b)** Explain with suitable diagram Drivers and stubs in unit test environment. Discuss with suitable diagrams top-up and bottom-up integration in integration testing. [9]

