

BE, Sem-VII, I.T., FH 2018

03/06/18

*Software Architecture* Q.P. Code : 36781

[Time: Three Hours]

[Marks: 80]

Please check whether you have got the right question paper.

- N.B:
- Q.1 is compulsory.
  - Attempt any three from Q2 to Q6
  - Assume data if required

Q.1 Define and explain the following terms:

- a) Architectural drift and Architectural erosion 05
- b) Architectural model and Architectural recovery 05
- c) Prescriptive architecture and descriptive architecture. 05
- d) Architecture Description Language (ADL) 05

Q.2 a) Explain various designing issues for following non-functional properties: - 10

- i) Efficiency and complexity
- ii) Scalability and heterogeneity

b) Explain proxy design pattern and when this pattern is used. 10

Q.3 a) Explain stake holder driven modelling. 10

b) What is architectural pattern? List the categories. in which architectural patterns are grouped. On what basis the architectural pattern is selected. 10

Q.4 a) Explain with the help of suitable diagram Architectural Trade Off Analysis Method (ATAM). 10

b) What characteristics do all data-intensive connectors share? 10

Q.5 a) Explain static and dynamic, functional and non-functional aspects. 10

b) Explain in brief decentralized architectures. 10

Q.6 Write short note on any two -

- i) Ambiguity, Accuracy and precision in the characterization of architectural models
- ii) Disadvantages of pipe and filter and Layered styles
- iii) UML and its role in SA

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