

[TIME: 3 HOURS]

[MARKS: 80]

Please check whether you have got the right question paper

- Note:
1. Question No. 1 is compulsory
  2. Attempt **any three questions** out of the remaining questions
  3. Make suitable assumptions whenever necessary

Q.1. Define and explain the following terms:

- a) Goals of Analysis (05)
- b) Issues in Software Architectural Design (05)
- c) Task Structure Matrix (05)
- d) Psychology and Philosophy of Design (05)

- Q.2.
- a) What is the significance of Software architecture in design? Define component, connector, ADL and configuration. (10)
  - b) Explain the concept of models in detail along with their usage and roles (10)

- Q.3.
- a) Explain Architectural Trade Off Analysis Method (ATAM). (10)
  - b) Explain Broker architecture. Give example of an application where broker architecture would be the right choice. Give its benefits and liabilities. (10)

- Q.4.
- a) Explain Architectural Description Language (ADL) in detail (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.5.
- a) Explain with example layered architectural pattern and state its benefits and liabilities. (10)
  - b) You have to develop an Operating System, between layered and pipe-filter which you will select, justify you answer. List situation where pipe-filter is suggested. (10)

- Q.6. Write Short notes on **any two** of the following (20)
- a) Meta Models
  - b) Ambiguity, Accuracy and precision in the characterization of architectural models
  - c) Software Product Life Cycle.

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