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SEAT No. :

**P70**

[Total No. of Pages : 2

**APR.-17/B.E./Insem.-80**

**B.E. (Computer Engineering)**

**SOFTWARE DESIGN METHODOLOGIES AND TESTING**

**(2012 Pattern)**

*Time : 1 Hour]*

*[Max. Marks :30*

*Instructions to the candidates:*

- 1) *Answer any 3 questions.*
- 2) *Neat diagrams must be drawn wherever necessary.*
- 3) *Assume suitable data, if necessary.*

**Q1) a) Explain 4+1 Architecture view? [4]**

b) What is extends and include stereotype in use case diagram? Draw a use case diagram for ATM system. [6]

OR

**Q2) a) Explain Aggregation, Composition and Generalisation with reference to Class diagram? [6]**

b) Differentiate between Static and Dynamic modelling with an example?[4]

**Q3) a) Explain client server software architecture. Describe Multiple Client / Multiple Service Architectural Pattern with example. [6]**

b) Explain Hierarchical Control Architectural pattern in Real time Software Architecture. [4]

OR

**Q4) a) Explain port, provided interface and required interface with an example.[6]**

b) Explain service discovery pattern in SOA. [4]

**P.T.O.**

**Q5) a)** Explain the intention, motivation and participants of factory pattern with an example. **[6]**

b) Describe Singleton pattern and its significance with an example. **[4]**

OR

**Q6) Write short notes (any two) :** **[10]**

i) Iterator Pattern

ii) Proxy Pattern

iii) Observer services

