APR - 18/BE/ Insem. - 88
B.E (Computer Engineering)
SOFTWARE DESIGN METHODOLOGIES & TESTING
(2012 Course) (Semester - II) (410449)

Time : 1 Hours]

[Max. Marks :30

Instructions to the candidates:
1) *Answer any three questions.*
2) *Neat diagram must be drawn.*
3) *Assume suitable data if necessary.*

Q1) a) State and explain the role of software design in the modern application software development. **[5]**

b) Draw a Use case diagram for online shopping system. Explain the advanced features like extends, include used in the diagram. **[5]**

OR

Q2) a) Draw a state machine diagram for multipurpose printer. **[5]**

b) Explain 4 +1 view software architecture. **[5]**

Q3) a) Explain asynchronous message communication with call back pattern with suitable example. **[5]**

b) What is the significance of broker architecture pattern? Explain Service Registration pattern in SOA. **[5]**

OR

Q4) a) Explain Centralized control architectural pattern in real time software architecture. **[5]**

b) Explain synchronous message communication with reply pattern with a suitable example. **[5]**

P.T.O.

Q5) a) What are the roles of design pattern? Explain the essential elements of the design pattern. **[5]**

b) Explain intent, motivation, structure and consequences of observer pattern. **[5]**

OR

Q6) a) Explain different types of design pattern in brief. **[5]**

b) What is the applicability of singleton pattern? State one application where this pattern can be used. **[5]**

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