

Total No. of Questions : 08]

SEAT No. :

P1759

[Total No. of Pages : 2

[5460] - 589

T.E. (Computer Engineering)
SOFTWARE MODELING AND DESIGN
(2015 Pattern)

Time : 2½ Hours]

[Max. Marks :70

Instructions to the candidates:

- 1) *Q.1 and Q.2 are compulsory. Solve Q. 3 or Q.4, Q.5 or Q.6 and Q.7 or Q.8.*
- 2) *Assume suitable data if required.*
- 3) *Figure to the right indicates full marks.*

Q1) a) Explain the difference between procedural/structural and Object-Oriented paradigm of design [5]

b) Write a use case specification for the use case: User authentication? [5]

Q2) a) Draw sequence diagram for Event registration system? [5]

b) Why class diagram is important in static modeling? Explain different relationship used in class diagram? [5]

Q3) a) Explain synchronous communication pattern in Client server architecture with example? [6]

b) Explain Location & Platform transparency in service oriented architecture? [6]

c) Write short notes on [6]

i) web registration services

ii) Brokering & discovery services

OR

P.T.O.

- Q4)** a) Explain asynchronous message communication with call back pattern with suitable example? [6]
b) Explain important characteristic of real time software architecture? [6]
c) Explain dynamic view of software architecture with the help of example? [6]

- Q5)** a) Explain proxy pattern? Describe its intent, motivation, Applicability & implementation with example? [6]
b) Draw structure of observer pattern with suitable class diagram including subject and observer? [6]
c) Write short note on [4]
i) Port provided & required interface
ii) Real time software architecture

OR

- Q6)** a) Explain Behavioral Design Pattern in short? [4]
b) Explain factory pattern? Describe its intent, motivation & implementation with example? [6]
c) What is singleton pattern? Explain one example scenario where you will Singleton pattern to get applied? [6]

- Q7)** a) What is integration testing; Explain its type in details? Define Stub & Driver? [8]
b) What is Black box testing? Why it is called BBT? Also explain boundary value analysis? [8]

OR

- Q8)** a) Explain graph based testing with suitable example? [6]
b) Compare white box testing and black box testing. [4]
c) What is performance testing? List few tools of performance testing? [6]

