

Total No. of Questions : 6]

SEAT No. :

P436

[Total No. of Pages : 2

**BE/Insem/APR - 104**  
**B.E. (Computer Engineering)**  
**SOFTWARE DESIGN METHODOLOGIES AND TESTING**  
**(2012 Pattern) (Semester - II)**

*Time : 1 Hour]*

*[Max. Marks : 30*

*Instructions to the candidates :*

- 1) *Solve Q.1 or Q.2, Q.3 or Q.4, Q.5 or Q.6.*
- 2) *Figures to the right side indicate full marks.*
- 3) *Neat diagrams must be drawn wherever necessary.*
- 4) *Assume suitable data, if necessary.*

- Q1)** a) Explain the concept of object oriented analysis and designing and its role in modern application software development. **[5]**
- b) Draw use case diagram for online digital Library information system with all advanced notations. **[5]**

OR

- Q2)** a) What are classes and objects? Why it is important in static modelling?**[5]**
- b) Explain the concept of generalization and specialization of class hierarchies using class diagram for Shape class. **[5]**
- Q3)** a) What are important communication patterns applied in clientserver architecture? Explain Synchronous message communication with reply pattern with the help of suitable example. **[5]**
- b) What is service oriented architecture? **[5]**

OR

- Q4)** a) Explain location transparency and platform transparency in service oriented architecture. **[5]**
- b) Describe Real time Software architecture in brief. **[5]**

**P.T.O.**

- Q5)** a) Explain factory pattern. Describe its intent, motivation and implementation with suitable example. [5]
- b) What are Structural patterns? Explain in brief. [5]

OR

- Q6)** a) Explain the intent, motivation, applicability, implementation and consequences of Adaptor pattern? [5]
- b) Explain the intent, motivation, applicability, implementation and consequences of observer pattern? [5]

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