

Total No. of Questions : 10]

SEAT No. :

P2337

[Total No. of Pages : 2

[5254]-672

B.E. (Computer Engineering)

**SOFTWARE DESIGN METHODOLOGIES AND TESTING
(2012 Pattern)**

Time : 2½ Hours]

[Max. Marks : 70

Instructions to the candidates:

- 1) *Neat diagrams must be drawn wherever necessary.*
- 2) *Assume Suitable data if necessary.*

- Q1)** a) Explain Aggregation, Composition and Generalisation with reference to Class Diagram? **[5]**
- b) Explain the fundamental design concepts applied in modern software design. **[5]**

OR

- Q2)** a) What is Unified Modeling Language (UML)? List few standard notation and diagrams of UML **[5]**
- b) What extension points in use cases? Explain with proper use case description and diagram. **[5]**
- Q3)** a) Explain the concept of generalization and specialization of class hierarchies using suitable example and class diagram. **[5]**
- b) What is Iterator pattern ? Explain one example scenario where you will Iterator pattern to get applied. **[5]**

OR

- Q4)** a) What is software architectural pattern ? And why they are important in modern software development? Explain in brief. **[5]**
- b) What are important design principles for service oriented architecture?**[5]**

P.T.O.

- Q5)** a) Explain V test model with suitable block diagram? [8]
b) What are different advantage and disadvantage of validation? [8]

OR

- Q6)** a) Explain the cases and effects of defects? [8]
b) Explain the defect management process with suitable block diagram?[8]

- Q7)** a) Briefly explain different types of functional system testing. [6]
b) Explain graph based testing with example? [6]
c) What is security testing. Explain different types security testing. [6]

OR

- Q8)** a) Differentiate between white box and black box testing. [6]
b) Explain regression testing. [6]
c) What is testing? List the benefits of unit testing. [6]

- Q9)** a) What is functional testing ? Explain its types? [8]
b) What are different required features in automated testing tools and explain them. [8]

OR

- Q10)**a) What are the selection criteria of automated testing tool? [8]
b) Write Short note on: [8]
i) Monkey talk
ii) Selenium

