SEAT No. :

P2337

[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

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