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16/05/18
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Question Paper Code : 40910

B.E./B.Tech. DEGREE EXAMINATION, APRIL/MAY 2018
Fifth/Sixth Semester
Computer Science and Engineering
CS 6502 – OBJECT ORIENTED ANALYSIS AND DESIGN
(Common to : Information Technology)
(Regulations 2013)

Time : Three Hours | Maximum : 100 Marks

Answer ALL questions

PART – A (10×2=20 Marks)

1. Define Use Case and Actor.
2. What is Activity Diagram ? Mention the elements of an Activity Diagram.
3. Mention the list of behavioral patterns used during design phase of software development.
4. List out the types of coupling.
5. What are the tasks performed in elaboration ?
6. List out the components of a POS system.
7. When to use Package Diagrams and Collaboration diagram ?
8. How to create an Instance ?
9. What is refactoring and testing ?
10. How to use the creating methods from Interaction diagrams ?

PART – B (5×13=65 Marks)

11. a) Consider an elevator that has the basic functions such as moving up and down open and close doors and pick up passengers. The elevator is supposed to be used in a building having floors numbered from 1 to n. There are call buttons in the elevator corresponding to each floor. For every floor except floors 1 and n, there are two floor call buttons for the passengers to call elevator for going up and down. There is only one down call button at floor n and one up call button in floor 1. Then the car stops at a floor, the doors are opened and the elevator light indicating the current direction the elevator is going is illuminated so that the passengers can get to know the current moving direction of the elevator. When the elevator is moving a music audio is played inside the elevator.

Draw class diagram, activity diagram and component diagram for designing this system. **(13)**

(OR)

b) Explain in detail about the interaction diagrams and also notations. **(13)**

12. a) Explain in detail about the GRASP pattern and also explain in designing objects with responsibilities. **(13)**

(OR)

b) i) Write short notes on adaptor pattern and observer pattern. **(7)**
ii) Compare between different categories of design patterns. **(6)**

13. a) Describe the strategies used to identify the conceptual classes. Describe the steps to create a domain model used for representing the conceptual classes. **(13)**

(OR)

b) i) Explain in detail about use case diagrams. **(6)**
ii) Discuss about aggregation and composition. **(7)**

14. a) Illustrate with an example, the relationship between sequence diagram and use cases. **(13)**

(OR)

b) Explain details about various static and dynamic UML important diagram with suitable example. **(13)**

15. a) Discuss briefly about issues in OO testing. **(13)**

(OR)

b) i) Explain in detail about GUI testing. **(6)**
ii) Comparison between OO integration testing and OO system testing. **(7)**

PART – C (1×15=15 Marks)

16. a) Discuss the various types of testing strategies in object oriented environment. **(15)**

(OR)

b) i) Draw and discuss an analysis model for Banking system. **(8)**
ii) Explain the software development life cycle of object oriented approach. **(7)**
