

m.E-I Sem - Comp.  
Object Oriented Analysis & Design.

16/12/09

125 - 2nd-AExm.09-Mina

Con. 5302-09.

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BB-6132

(3 Hours)

[ Total Marks :100

N.B.: (1) Question 1 is compulsory.

(2) Attempt in four questions out of remaining six questions.

(3) Assumptions made should be clearly stated.

1. (a) What are OOP, OOD and OOA ? Explain how they are related ? 8  
(b) What are benefits and risks of Object Oriented Development ? 8  
(c) What are five attributes of a complex system ? 4
2. (a) A Ticket Vending Machine (TVM) dispenses tickets to passengers at a railway station. Passengers use the front panel to specify their boarding and destination place, details of passenger (number of adults and children) and date of travel. The machine displays the fare for the requested ticket. The passenger then deposits the cash in the bin provided and presses 'accept cash'. The machine checks the cash if it is more, the balance cash is paid out. And the ticket requested is printed. The system is also used by the operator who might want to know the cash held in the machine, the break-up of small change available in the machine, withdraw or deposit cash when needed. And the report options also include the detailed report of transactions, summary report of the number of tickets sold for each destination, opening balance, cash collected, cash dispensed and current balance in the machine. Develop a use case diagram and state transition diagram for the same. muadda.com 12  
(b) Explain following with examples :— 8  
(i) Conditional Transition, Nested States  
(ii) History state, Orthogonal state.
3. (a) What do you mean by abstraction ? Give appropriate examples. Also explain different types of abstraction. 10  
(b) How does one properly identify the classes and their relationships that are relevant to a particular problem ? 10
4. (a) Develop a class diagram for hospital management system. 10  
(b) What is an object ? What is a class ? How do you distinguish between the two constructs ? 6  
(c) What are the five levels of process maturity ? Explain. 4
5. (a) Explain Macro Process of development in detail. 10  
(b) Explain object identity and its role during its lifespan. What are passive and active objects ? Give appropriate examples of each. 10
6. (a) Draw a functional model for library management system and give proper explanation for the same. 10  
(b) Explain release management and walkthroughs with respect to object oriented development. muadda.com 10
7. Write short notes on :— 20  
(a) Object oriented s/w testing  
(b) Typing  
(c) Reuse in s/w development  
(d) Role name and qualification.