

## Object Oriented Analysis &amp; Design

Con. 3150-09.

BB-5688

muadda.com (3 Hours)

(2)

[Total Marks : 100]

N.B. : (1) Question No. 1 is **compulsory**.(2) Attempt any **four** questions from remaining **six** questions.(3) Assume suitable data if **necessary**.

1. (a) What are parameterized classes, metaclasses and nesting of classes ? Give 10 examples for each.
- (b) Explain the different approaches used for analysis that are relevant to object oriented systems. 10
2. (a) What is dynamic modelling ? Explain dynamic modelling with reference to state, events, conditions, activity, state and event generalization, shot diagram, internal actions, controlling operations. Give example of each. 10
- (b) Explain the conceptualisation activity of Macro-development process in detail. 10
3. (a) What makes the software inherently complex ? How might some of the problems associated with software design be mitigated by design tools or methods ? 10
- (b) Draw (i) a class diagram and (ii) module diagram for road traffic management system as explained below :— 10  

**muadda.com**

Traffic controller controls the signals (3 types) and also assigns duties to traffic policemen who are assigned to any road (highway or subhighway). Traffic police keep a watch over the drivers and fines them if they violate rules and also reports errors related to signals.
4. (a) Explain the object identify and its role during its lifespan. What are passive and active objects ? Give appropriate examples of each. 10
- (b) What do you mean by abstraction ? Give appropriate examples. Also what is entity abstraction, action abstraction, virtual machine abstraction and coincidental abstraction. 10
5. (a) How can you construct interaction diagram from use case analysis ? Explain with example. 10
- (b) Explain the different stages of object oriented project scheduling and tracking. 10
6. (a) Why is documentation of a system architecture and its implementation necessary ? What are essential documents. 10
- (b) What is concurrency ? How can you distinguish between heavy weight and light weight process ? 10
7. Write short notes on :— 20
  - (a) Resource Allocation
  - (b) Object Oriented Software Testing **muadda.com**
  - (c) Technology Transfer
  - (d) History state, Orthogonal state, Nested states.