## MCA (Revised)

Term-End Examination
December, 2012 AND DESIGN

Time: 3 Hours
Maximum Marks : 100
Note: Question no. 1 is compulsory. Attempt any three questions from the rest.

1. (a) What are the benefits of object oriented 5 methodology in real life applications ?
(b) Briefly explain each elements of state 5 diagram w.r.t. dynamic modeling.
(c) Patient can arrange and cancel appointment with physician using schedules? Physician decides to prescribe medication for patient. Physician specifies drug Info : medication name, dosage amount, number doses \& refills. Computer cross checks for conflicts between medication and current medications/ medical History prescription forwarded Electronically to pharmacy or else printed for patient.
(i) Draw a class diagram. Add 6 operations, attributes and relationship with navigation and multiplicity.
(ii) Draw an activity diagram. ..... 5
(iii) Draw the DFD diagram. ..... 4
(iv) Draw an association and inheritance ..... 6diagram
(v) Draw state diagram. ..... 4
(d) How do we use packages in UMC ? ..... 5
2. Differentiate Between : ..... $5 \times 4=20$(a) Encapsulation and information hiding(b) Links and association(c) Communication diagram and deploymentdiagram.(d) Cohesion \& coupling.
3. (a) Write short note on: ..... $2 \times 5=10$
(i) Inheritance adjustment
(ii) Concurrency
(iii) DBMS keys
(iv) Encapsulation
(v) Data binding
(b) Draw an use case diagram of health care ..... 5system.
(c) What is the benefit of two way association? ..... 5
4. (a) For a library management system, make ..... 10analysis model, design model andconstruction model.
(b) Differentiate between messages \& signalling. 5
(c) What are the consequences of 5 implementation environment?
5. (a) What is architecture of UMC ? How many 10 types of diagrams are used in UMC ? Explain each.
(b) How to represent parallel activities in acitivity diagram?
(c) What are the basic key aspects of object 5 oriented solution?
