

NTK/KW/15-7432

Fifth Semester B. E. (C.T.) (C.B.S.)
Examination

OBJECT ORIENTED MODELING

Time : Three Hours]

[Max. Marks : 80

- N. B. : (1) All questions carry marks as indicated.
(2) Solve Six questions as follows :
Que.No.1 OR Que.No.2
Que.No.3 OR Que.No.4
Que.No.5 OR Que.No.6
Que.No.7 OR Que.No.8
Que.No.9 OR Que.No.10
Que.No.11 OR Que.No.12
(3) Due credit will be given to neatness and adequate dimensions.
(4) Illustrate the answers with necessary figures/drawings wherever necessary.
(5) Assume suitable data wherever necessary.

1. (a) Define software architecture. Explain the 4+1 view model of system architecture. 6
(b) Define object identity. What is oid uniqueness principle? 4
(c) Briefly explain the extensibility mechanism in UML. 4

OR

2. (a) What are the principles of modeling? 4
(b) Explain the UML approach to SDLC. 6

- (c) How is generalization / specialization contrasted with more code reuse? State Liskov's substitution principle. 4
3. (a) What are the contents in class diagram? Show all the contents in class diagram in student department relationship. 7
- (b) How do you inter-relate interfaces types and roles? 6

OR

4. (a) Enumerate steps to model logical data base schema. 7
- (b) Write short note on (Any Two) :—
- (i) Polymorphism in collaboration diagram.
- (ii) Synchronous and asynchronous message.
- (iii) Object diagram. 6
5. (a) What are the contents of use case diagram? Explain in brief its modeling techniques. 7
- (b) Draw the activity diagram for student login registration system. 6

OR

6. (a) Enumerate the steps in modeling timing constraints. Illustrate with a UML diagram and explain. 7
- (b) Write short note on Interprocess communication. 6

7. (a) Explain in brief about component diagram. 6
(b) What are the uses of package in component diagram? 7

OR

8. (a) Enumerate any six artifacts. 6
(b) Draw deployment diagram for any web based application. 7
9. (a) Explain in brief use case driven development. 7
(b) How to create the analysis model from the use cases? 6

OR

10. (a) What is the need of use cases? 6
(b) How to test the use cases for any system? 7
11. (a) Explain the need of architecture for any software system. 6
(b) Explain architecture view of the design model of the ATM system. 8

OR

12. (a) Why do we need the interactive and incremental development approach for software system? 6
(b) Draw the use case diagram for the library system and explain the relationships. 8