

B.E. (Computer Engineering) Fourth Semester (C.B.S.)

**Object Oriented Methodology**

P. Pages : 2

Time : Three Hours



**NRT/KS/19/3392**

Max. Marks : 80

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- Notes :
1. All questions carry marks as indicated.
  2. Solve Question 1 OR Questions No. 2.
  3. Solve Question 3 OR Questions No. 4.
  4. Solve Question 5 OR Questions No. 6.
  5. Solve Question 7 OR Questions No. 8.
  6. Solve Question 9 OR Questions No. 10.
  7. Solve Question 11 OR Questions No. 12.
  8. Due credit will be given to neatness and adequate dimensions.
  9. Assume suitable data whenever necessary.
  10. Diagrams and chemical equations should be given whenever necessary.

1. a) What are object oriented Themes? Explain it with an example. 7
- b) What is meant by object - oriented modelling? Explain the various stages of OMT. 6

**OR**

2. a) Explain Abstraction and Encapsulation. 6
- b) What do you mean by link and association. Also explain candidate key. 7
3. a) Explain scenario and event trace with example. 4
- b) Draw and explain state diagram of Car with example. 6
- c) Write short note on aggregation concurrency. 4

**OR**

4. a) What are the steps performed in functional modeling? Explain. 6
- b) What do you mean by constraints & control flow. 4
- c) Prepare a DFD for computing the volume & surface area of a cylinder. Inputs are heights & radius of the cylinder. Output are volume & surface area. 4
5. a) Draw object diagram for ATM system with attribute and inheritance. 7
- b) State and explain various phases of dynamic modeling. 6

**OR**

6. a) Write short note on refining the object model. 6
- b) Explain the steps performed in construction of object model. 7

7. a) Explain following 8
- i) Batch transformation.
  - ii) Continuous transformation.
- b) Explain phases involved in system design during object oriented development. 6

**OR**

8. a) Explain the following with example. 6
- i) Transaction manager
  - ii) Dynamic simulation
- b) What are the advantages & disadvantages of using database system over simple files. 8
9. a) Write short note on 6
- i) One-way association in object design.
  - ii) Two - way association in object design.
- b) What are different issues involved in physical packaging? Explain. 7

**OR**

10. a) How algorithm are chosen during object design? Explain in detail? 7
- b) Explain the technique of converting a state diagram to code. 6
11. a) Compare JSD with OMT. 4
- b) Write short note on: 9
- i) Robustness
  - ii) Reusability
  - iii) Extensibility

**OR**

12. a) Explain implementation using programming language. 7
- b) Explain the role of programming in large on programming style. 6

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