

**Object Oriented Modelling**

P. Pages : 1

TKN/KS/16/7432

Time : Three Hours



Max. Marks : 80

- 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. Illustrate your answers whenever necessary with the help of neat sketches.

1. Define following terms. 14
  - i) Encapsulation.      ii) Polymorphism.      iii) Data Abstraction.
  - iv) Abstract data types.      v) Data binding.      vi) Object.      vii) Overloading.

**OR**
2. a) Define software architecture, Explain 4 + 1 view of system architecture. 8
- b) Discuss the different static & Dynamic diagrams of UML. 6
3. a) Differentiate between nodes and components in UML. 5
- b) What is component diagram? What are the different parts of component diagram. 8

**OR**

4. Draw a class diagram of an organization of college to visualize management different departments, employees and students. 13
5. Draw the use case diagram for the course registration system and explain relationships. 13

**OR**

6. a) Discuss "Testing the use cases". 7
- b) Discuss "Realising use cases". 6
7. a) Why we need the iterative and incremental development approach for software system. 7
- b) How to create analysis model from the use cases. 6

**OR**

8. Draw and explain Deployment diagram for ATM machine. 13
9. a) Enumerate any six artifacts. 7
- b) Enumerate the steps to model Interprocess communication (IPC). 7

**OR**

10. Explain following unified processes:- 14
  - i) Use case driven.      ii) Architecture centric.
  - iii) Iterative.      v) Incremental.
11. a) Explain the characteristic of object oriented programming. 7
- b) What are the different principles of modelling. 6

**OR**

12. a) Write a short note on Agile software development. 7
- b) Explain following terms: -      i) Process      ii) Thread      iii) Event. 6

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