

K18P 0051



Reg. No. : .....

Name : .....

**Fifth Semester M.C.A. Degree (Regular/Supplementary/Improvement)  
Examination, January 2018  
(2014 Admission Onwards)  
MCA 5C24 : OBJECT ORIENTED MODELING AND DESIGN**

Time: 3 Hours

Max. Marks : 80

- Instructions :** 1) Answer any ten questions from Part – A. Each question carries 3 marks.  
2) Answer all questions from Part – B. Each question carries 10 marks.

**PART– A**

**Note :** Answer any ten questions. Each question carries 3 marks.

1. Define the following terms with suitable example :
  - a) Object
  - b) Classes.
2. Define the following terms with suitable example :
  - a) Attributes
  - b) Object diagram.
3. Draw the state diagram for a phone line.
4. Explain activity diagram with the UML notation.
5. Give the deployment diagram for software constructs.
6. Write a short note on Interface diagrams.
7. What are nested states ? Explain with example.

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8. State the principle of type conformance.
9. Differentiate between architecture domain and business domain.
10. Differentiate between light weight and heavy weight components.
11. Write a note on mix-in classes.
12. List the disadvantages of using components.

PART - B

Answer **all** questions. **Each** question carries **10** marks :

13. a) Discuss how object orientation ensures the quality of software.  
OR  
b) Explain in detail about inheritance.
14. a) Explain the generalization association constructs with examples.  
OR  
b) Explain the basic concepts of functional model with functional model notations.
15. a) Explain the deployment diagram of software constructs.  
OR  
b) Explain in detail about packages.
16. a) Write short notes on :
  - i) Class cohesion
  - ii) Principle of closed behavior.OR  
b) Explain in detail about encapsulation structure and class invariants.
17. a) Explain in detail about the dangers of polymorphism.  
OR  
b) Write short note on :
  - i) Rings of operations
  - ii) Abuses of Inheritance.