



ECS-503

(Following Paper ID and Roll No. to be filled in your Answer Book)

PAPER ID : 110503

Roll No.

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B. Tech(SEM. V) (ODD SEM.) THEORY
EXAMINATION, 2014-15**OBJECT ORIENTED TECHNIQUES**

Time : 3 Hours]

[Total Marks : 100

Note: Attempt All questions.1. Answer any FOUR parts: **5x4=20**

- Define polymorphism. Is this concept only applicable to object oriented systems? Explain.
- What is the difference between object-based and object oriented programming language?
- What are the basic principles of Modeling? Explain in detail.
- Why UML required? What are the basic architecture of UML?
- "Object oriented programs are easy to maintain" Justify.
- Explain generosity in java with suitable example.

110503]

1

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2. Answer any FOUR parts:

5x4=20

- Explain the Deployment Diagram. What is the difference between components and nodes?
- Define package. Explain the package diagram with suitable diagram.
- Write short notes on use case diagram with suitable diagram and their utility in system design.
- What do you mean by activity diagram? Explain in detail.
- Define State Machine? Draw a State Machine diagram for answering a telephone call.
- What do you mean by event? What are the types of event explain with example?

3. Answer any TWO parts:

10x2=20

- Compare the OMT methodology with SA/SD methodology. Explain with suitable example.
- Write short notes on the following:
 - Translating object oriented design into an implementation
 - Jackson Structured Development
- Describe the relation of functional model, object model and dynamic models. What is relationship and difference between OOA (Object oriented analysis) and OOD (Object oriented design)?

110503]

2

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4. Answer any TWO parts: **10x2=20**

- (a) (i) What do you mean by pure object oriented language? Is Java pure object oriented language? If yes How?
- (ii) What is concept of constructor explain with example? Why it is needed?
- (b) (i) What do you mean by multithreading? Does it have an impact in the performance of Java? Explain.
- (ii) Write a program in Java to read in two matrices from the keyboard and compute their sum. Overload toString() method to display the result matrix in row and column form.
- (c) Write down the difference between the following :
- (i) Abstract class and Interface
- (ii) Mouse Listener and Mouse Motion Listener

5. Answer any TWO parts: **10x2=20**

- (a) Write short notes on the following with suitable examples :
- (i) Applet and its life cycle
- (ii) Java Swings

- (b) What do you understand by JDBC/ODBC bridge? Why it is required? How it is implemented in Java? Explain with an example.
- (c) Write short notes on any two of following :
- (i) Java Servlets
- (ii) AWT
- (iii) Exception Handling Techniques
- (iv) Enterprise Java Beans.