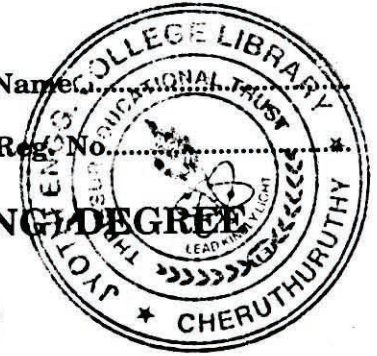


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Name.....

Reg. No.....



**FOURTH SEMESTER B.TECH. (ENGINEERING) DEGREE
EXAMINATION, APRIL 2013**

IT 09 405 – DATA MODELLING AND DESIGN

(Regular/Supplementary/Improvement)

(2009 Scheme)

Time : Three Hours

Maximum : 70 Marks

Part A

1. What is an object? Give an example.
2. What do you mean by array?
3. Distinguish between an object and a class.
4. What do you mean by usecase?
5. What do you mean by interface?

(5 × 2 = 10 marks)

Part B

1. Write the significance of architectural modelling.
2. Enumerate the advantages of object oriented programming.
3. Compare Multiple inheritance and Multilevel inheritance.
4. Enumerate the steps in identifying attributes of a class.
5. Mention the characteristics factors in usecase diagram.
6. What do you mean by 'role' in UML Diagram?

(4 × 5 = 20 marks)

Part C

1. Discuss in detail various control statements in Java.
- Or*
2. Explain in detail about the following features of Java :
 - (a) Exception handling.
 - (b) Multithreading.

(5 + 5 = 10 marks)

Turn over

3. State and explain various relationships in UML. Discuss in detail how we can specify various stereotypes for these relationships.

Or

4. With a neat example, explain the state machine model in detail.
5. What do you mean by UML? Explain in detail, the architecture of UML.

Or

6. With a diagrammatic example, explain in detail about the following interaction diagrams :
- (a) Sequence Diagram.
 - (b) Collaboration Diagram.

(5 + 5 = 10 marks)

7. Consider a hospital management system with the following requirements :
- (a) System should handle inpatient and out patient information through receptionist.
 - (b) Doctors are allowed to view the patient history and give their prescription.
 - (c) There should be an information system to provide information.

Give proper class diagram and object diagram for the above scenario.

Or

8. With a specific diagrammatic example, explain the following types of diagrams :
- (a) Component Diagram.
 - (b) Deployment Diagram.

(5 + 5 = 10 marks)

[4 × 10 = 40 marks]