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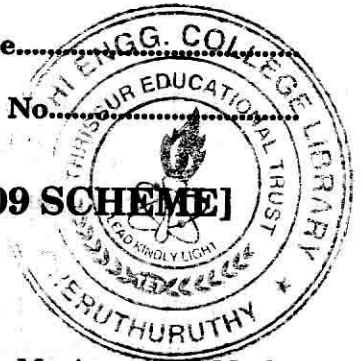
FOURTH SEMESTER B.TECH. (ENGINEERING) [09 SCHEME] DEGREE EXAMINATION, APRIL 2015

IT 09 405 – DATA MODELLING AND DESIGN

Time : Three Hours

Maximum : 70 Marks

Part A

*Answer **all** questions.*

1. Mention any *four* data types supported by Java programming language.

2. What do you mean by inheritance?

3. What is an object? Give an example of an object.

4. What do you mean by a role? Give suitable example.

5. Enumerate the components of architectural model.

(5 × 2 = 10 marks)

Part B

*Answer any **four** questions.*

1. What is a variable? How does it differ from a constant? How will you declare and initialize a variable in Java?

2. List out various operators available in Java Programming Language.

3. Draw the representation of a class in UML.

4. Explain in detail about interfaces in UML.

5. With a neat diagram explain state machine model.

6. Discuss about the deployment diagram with example.

(4 × 5 = 20 marks)

Part C

*Answer **all** questions.*

1. Explain in detail the features of Java Programming Language.

Or

2. Discuss in detail about the process of exception handling in Java Programming Language.

3. Explain in detail about the following concepts in UML :

   (a) Instances.

   (b) Types.

Or

Turn over

4. Elaborate the structural model in UML.

5. For a typical ATM example, identify the actors and use cases involved in it. Develop a use case diagram for the same.

Or

6. Explain in detail about activity diagram with a neat sketch. Also explain the components involved in building an activity diagram.

7. How UML helps in Software development? Explain in detail about the softwares available in the market to work with Java.

Or

8. With a neat sketch, explain the component diagram and its components.

(4 × 10 = 40 marks)