17630

Instructions – (1) All Questions are *Compulsory*.

(2) Answer each next main Question on a new page.

(3) Figures to the right indicate full marks.

(4) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.

Marks

1.   Attempt any <u>FIVE</u> of the following: **20**

a) What is attribute? Explain with suitable example.

b) Describe conceptual model of UML?

c) Mention and explain any four properties of objects?

d) What are constraints? How they are applied in class diagrams?

e) Define interface with suitable example and explain its importance.

f) Describe forking and joining in activity diagram.

g) What are different notations used for components diagram? Explain.

2.   Attempt any <u>FOUR</u> of the following: **16**

a) Explain class diagram with suitable example.

b) Explain different relationships in UML.

c) Explain unified software development life cycle.

d) Differentiate between aggregation and association.

e) What is metadata? Explain with appropriate example.

f) Describe notations used for deployment diagram.

Marks

3. **Attempt any <u>FOUR</u> of the following:** **16**

a) What is state diagram? Explain.

b) Draw the symbols in deployment diagram and state use of it.

c) Explain Object Modeling Technology (OMT) by Rambaugh.

d) What is modeling? What are four principles of modeling?

e) Describe the term dependencies with respect to class diagram.

f) Differentiate between functional modeling and dynamic modeling.

4. **Attempt any <u>TWO</u> of the following:** **16**

a) Draw use case diagram for hospital management.

b) Draw and explain state chart diagram for ATM.

c) Draw a sequence diagram for printing a file.

5. **Attempt any <u>FOUR</u> of the following:** **16**

a) Explain sequence diagram with suitable example.

b) Explain Decision (Branching) in activity diagram.

c) Explain propagation of operation with suitable example.

d) Explain sequential substate with example.

e) State the importance of generalization in class diagram with suitable example.

f) What are the components of a state chart diagram?

6. **Attempt any <u>TWO</u> of the following:** **16**

a) Draw use case diagram for railway reservation.

b) Draw activity diagram for making photocopies of xerox machine.

c) Draw sequence diagram for placing purchase order.

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