17630

11920

3 Hours / 100 Marks Seat No. | | | | | | | | |

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

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

(3) Illustrate your answers with neat sketches wherever necessary.

(4) Figures to the right indicate full marks.

(5) Assume suitable data, if necessary.

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

Marks

1. Attempt any FIVE of the following: **20**

a) Explain different relationship in UML.

b) Differentiate between aggregation and association.

c) Draw a class diagram for railway reservation system.

d) Explain the notations used in use case diagram.

e) Describe forking and joining in activity diagram.

f) Describe any four notations used for deployment diagram.

2. Attempt any FOUR of the following: **16**

a) What is object orientation? Explain any two object oriented themes.

b) Explain meta data with example.

c) Draw a sequence diagram for printing a file.

Marks

d) Explain <<include>> and <<extend>> relationships in use case diagram.

e) Explain the swim lane in activity diagram with one example.

f) Define node. Draw notation. Explain use of deployment diagram.

3. Attempt any TWO of the following: **16**

a) State and explain notations used to draw class diagram. Draw a neat class diagram for hospital management system.

b) State any two types of actors used in use case diagram. Draw a neat use case diagram for printing result from MSBTE website.

c) Explain decision making and branching in activity diagram. Draw activity diagram for making photo copies on xerox machine.

4. Attempt any FOUR of the following: **16**

a) List and classify various UML diagrams.

b) Explain Rambaugh OMT in detail.

c) Explain propagation of operation with suitable example.

d) How to create and destroy message with examples.

e) Draw the state chart diagram for ATM.

f) Explain concept of interface and port.

5. Attempt any FOUR of the following: **16**

a) Describe rational unified software development life cycle with its all phases.

b) Explain multiplicity with all its notations.

c) Draw sequence diagram for student online registration system.

d) Draw activity diagram for online purchase order.

e) Differentiate between action node and activity node in activity diagram.

f) Draw component diagram for Library Management System.

Marks

6. Attempt any FOUR of the following: **16**

a) Explain the principles of modelling.

b) Explain generalization and inheritance.

c) Explain the following terms

(i) Attribute

(ii) Link attribute

(iii) Ordering

(iv) Qualified association

d) Explain parallel and loop structured control in sequence diagram.

e) Draw the use case diagram for online airline reservation system.

f) Explain the notations used in state diagram.