21819

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 <u>FIVE</u> of the following :**   **20**

   a)   State and explain benefits of OOA.

   b)   Explain dynamic modeling.

   c)   Describe multiplicity with suitable example.

   d)   Draw the sequence diagram for msbte online exam form filling.

   e)   Give notations used for use case diagram along with its pictorial representations.

   f)   Explain sequential substate with example.

   g)   List and explain types of transitions.

Marks

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

   a) State the characteristics of UML.

   b) How can you use associations as a class.

   c) Give two advantages and disadvantages of

     (i) Class

     (ii) Advanced class diagram

   d) Draw the use case diagram for printing result from MSBTE website.

   e) Explain transitions and their types.

   f) List and draw the notations used in deployment diagram.

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

   a) Describe the term dependencies w. r. t to class diagram.

   b) Explain candidate key with example and diagram.

   c) Draw the use case diagram for online Airline reservation system.

   d) Draw the activity diagram for e-ticket booking for bus.

   e) Explain the following term under activity diagram.

     (i) States

     (ii) Branching

   f) Draw and list the notations used for component diagram.

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

   a) Explain characteristic of object with respect to

     (i) Identity.

     (ii) Classification.

     (iii) Polymorphism.

     (iv) Inheritance.

   b) Draw sequence diagram for printing semester end exam marksheet by student from MSBTE website.

   c) Draw and explain the component diagram for ATM system.

Marks

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

   a) List and explain four principles of modeling.

   b) Define class w.r. t to OO and which symbols are used in class diagrams.

   c) Describe Abstract class and Concrete class with diagram.

   d) Draw the class diagram for getting scholarship of student.

   e) Explain sequence diagram with suitable example.

   f) Draw the activity diagram for conducting unit test of civil department.

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

   a) Draw the use case diagram for " online mobile purchasing".

   b) Draw and explain state chart diagram for online railway reservation system.

   c) Draw and explain deployment diagram for internet and network connection.

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