QP Code: 9230QP

Seat No.	

Total No. of Pages: 3

Winter Examination Oct/Nov 2023

Subject Name: B.Tech. CBCS_80796_81035 - Object Oriented Modeling and Design_02.12.2023_10.30 AM To 01.00 PM

Subject Code: 80796

Day and Date: - Saturday, 02-12-2023 **Total Marks: 70**

Time: - 10:30 am to 01:00 pm

Instructions.:

1) All questions are compulsory
2) Figures to the right indicate full marks
3) Assume suitable data wherever necessary and mention it boldly

---

Q.1. **a) The _____ model describes those aspects of a system concerned with time and sequencing of operations** **[14]**

A. object
B. dynamic
C. functional
D. none of these

b) Association are inherently

A .bidirectional
B. Unidirectional

c)In event trace diagram, a vertical line represents _____ and horizontal arrow represents _____ .

A. State, event
B. Object, event
C. State, data flow
D. Function, data flow

d) One-shot state diagrams represent objects with _____ lives.

A. Finite
B. Infinite
C. Both (A) and (B)
D. None of the above

e) A process can be expanded into another _____ .

A. Process
B. State diagram
C. Object diagram
D. Data flow diagram

9511

f) Scenarios are: **[14]**

A. the same as use cases
B. the same as test cases
C. used to derive test cases
D. the same as object diagrams

g) A call event represents

A. passage of time
B. the dispatch of an operation
C. a change in state
D. the occurrence of a signal

h) Stereotypes means _____

A. Extends vocabulary of UML
B. To mention class name
C. To represent relationships
D. To add role names

i) _____ constraint specifies that instance or link is created during execution of the enclosing interaction but is destroyed before completion of execution.

A. destroyed
B. new
C. transient
D. none of these

j) _____ reduces the effective multiplicity of this association.

A. classification
B. role name
C. qualification
D. Ordering

k)The sequence of events and the objects exchanging events can both be shown in an augmented scenario call an _____ diagram

A. event diagram
B. state diagram
C. object diagram
D. event trace diagram

l) Interface can be separated into application logic and the _____ interface

A. state
B. object
C. user
D. none of these

m) The UML language is used for

A. Visualizing
B. Specifying
C. Documenting
D. All of above

n) Use case is realized by _____.

A. Actor
B. System boundary
C. Process
D. Collaboration

9511

Q.2. **Solve any 2 of the following (7 Marks Each)** **[14]**

a)What is model? Explain several purposes of models.

b) Explain the three models of OMT.

c) Explain the relation of functional model to object and dynamic models.

Q.3. **Solve any 2 of the following (7 Marks Each)** **[14]**

a) Write note on “nesting state diagrams".

b) List and explain the steps involved in designing the algorithms.

c) Explain in detail the actions taken by designer in design optimization

Q.4. **Solve any 2 of the following (7 Marks Each)** **[14]**

a) Draw and explain use case diagram for credit card validation system.

b) Explain the behavioural things in UML.

c) Explain the following terms with respect to architecture modelling: i) Node ii) Collaboration iii) Pattern

Q.5. **Solve any 2 of the following (7 Marks Each)** **[14]**

a) Explain patterns and frameworks.

b) Explain interaction diagram, its contents and common uses.

c) Explain deployment diagram and its uses.

9511