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PRESIDENCY UNIVERSITY
BENGALURU

SCHOOL OF ENGINEERING

TEST - 1

Even Semester: 2018-19 | **Date**: 01 March 2019

Course Code: CSE 213 | **Time**: 1 Hour

Course Name: Object Oriented Analysis And Design | **Max Marks**: 40

Programme & Sem: B.Tech (CSE) & VI Sem | **Weightage**: 20%

Instructions:

(i) Answer all the questions.

Part A

Answer **all** the Questions. **Each** question carries **two** marks. (5Qx2M=10)

1. What is prototyping? Why is it useful?
2. Represent the Superclass and Sub class relationship in class diagram using specialization with suitable example.
3. List out the various types of Object relationships.
4. Differentiate Static and Dynamic binding.
5. Mention the four messages that is used in Sequence diagram.

Part B

Answer **all** the Questions. **Each** question carries **five** marks. (2Qx5M=10)

6. Identify the four phases that involved in OMT.Also explain the OMT with the needed diagram.
7. Explain how the Association is used to show depency.Illustrate the various types of Associations with suitable examples.

Part C

Answer **all** the Questions. **Each** question carries **ten** marks. (2Qx10M=20)

8. Sketch the 3D overview given Booch Methodology. Describe an OO system deployment activities for Macro and Micro development process.
9. i). A company consists of departments. Departments are located in one or more offices. One office acts as a headquarter. Each department has a manager who is recruited from the set of employees. Our task is to model the system for the company. Draw and explain a class diagram which consists of all the classes in our system their attributes and operations, relationships between the classes, multiplicity specifications, and other model elements that you find appropriate. (5)
   ii) Draw the Sequence diagram for Toll Plaza. (5)

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TEST - 2

Even Semester: 2018-19 | **Date**: 13 April 2019

Course Code: CSE 213 | **Time**: 1 Hour

Course Name: Object Oriented Analysis and Design | **Max Marks**: 40

Program & Sem: B.Tech & VI Sem | **Weightage**: 20%

Instructions:

(i) ***Read the question properly and answer accordingly.***

(ii) ***Question paper consists of three parts.***

Part A

Answer **all** Questions. **Each** question carries **four** marks. (4Qx4M=16)

1. Define the term "Component". Mention any two benefits of component diagrams.
2. Differentiate between Device Nodes and Execution Nodes in Deployment diagrams.
3. Provide the UML notations for State Chart diagrams.
4. Explain the guidelines for finding use cases.

Part B

Answer **both** the Questions. Each question carries **seven** marks. (2Qx7M=14)

5. Draw the deployment diagram for order management system. Indicate the device nodes and execution nodes in the diagram.
6. Draw the component diagram for food ordering system. Indicate the interfaces.

Part C

Answer the Question. The question carries **ten** marks. (1Qx10M=10)

7. A store wants to automate its inventory. It has point-of-sale terminals that can record all of the items and quantities that a customer purchases. Another terminal is also available for the customer service desk to handle returns. It has a similar terminal in the loading dock to handle arriving shipments from suppliers. The meat department and produce department have terminals to enter losses/discounts due to spoilage.

   For the given case,

   (a) identify the list of nouns/ noun phrases; (b) Eliminate irrelevant classes;

   (c) Eliminate redundancies; (d) Identify attributes; and

   (e) Arrive at the final list of relevant classes.

Part C

Answer the Question. The question carries **twenty** marks. (1Qx20M=20M)

6. Do a Case Study Example which describes **about** domain area for an Integrated Library System (ILS), also known as a Library Management System (LMS) - Library, Catalog, Book, Patron, Account.

Library Domain Model describes main classes and relationships which could be used during analysis phase to better understand domain area for ILS or LMS.

For this Draw UML Class diagram and explain in detail.

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END TERM FINAL EXAMINATION

Even Semester: 2018-19
Course Code: CSE 213
Course Name: Object Oriented Analysis & Design
Program & Sem: B.Tech & VI Sem

Date: 21 May 2019
Time: 3 Hours
Max Marks: 80
Weightage: 40%

Instructions:
(i) Answer ALL the Questions

Part A

Answer **all** the Questions. **Each** question carries **one** mark. (20x1M=20M)

1.

i. Which of the following is NOT a system development activity

A) Analysis B) Modeling C) Re-engineering D) Design

ii. Width, Height and border style are attributes of

A) Button B) Label C) Form D) Product

iii. NOT a guideline for Design

A) Reuse rather than build a new class B) Design large number of simple classes

C) Design Methods D) Design Testing

iv. Horizontal Prototyping is _____.

A) Simulation of the Interface B) Subset of the System

C) Aid for exploring the problem D) Aid for incremental development.

v. _____ produces detailed design models.

A) Booch Methodology B) Rumbaugh Methodology

C) Jacobson Methodology D) Object Methodology

vi. _____ presented by state transition diagrams and event flow diagrams

A) An object Model B) An Dynamic Model

C) A Functional Model D) Operational Model

vii. _____ is NOT a primary symbol in Data Flow Diagram

A) Process B) Data Flow C) Data Store D) Hard disk

viii. The following diagram shows the dynamic behavior of classes.

A) State Transition Diagram B) Module Diagram

C) Process Diagram D) Interaction diagram

ix. Which of the following step is NOT involved in Micro development process.

A) Identify classes & Objects B) Identify classes & object semantics

C) Identify the Association D) Identify classes & object relationship

x. _____ defines the inside and outside of the system.

A) Domain Object Model B) Use Case Model

C) Analysis Object Model D) Implementation Model

xi. Choose the ODD one out from the following:

Abstract Use case is:

A) Not Complete B) Has no actors to initiate

C) Used by other use-case D) Not using extends or uses relationships

xii. Which diagram is better in "Time Ordering?'

A) Sequence Diagram B) Collaboration Diagram

C) Data Flow Diagram D) Activity Diagram

xiii. In Activity Diagram "The Source of Flow of Control" is known as _____

A) Initial Node B) Congestion Node

C) Full Control D) Association

xiv. The out come of the Business object analysis is to

A) Identify classes B) Identify the Abstraction

C) Identify the relationships D) None of the above

xv. Which step is NOT part of OOA Process?

A) Identify the Actors B) Identify the Axioms

C) Develop the use case D) Prepare Interaction Diagram.

xvi. A reference from one class to another is a _____.

A) Abstraction B) Polymorphism

C) Data Hiding D) Association

xvii. _____ is example for Association

A) Owners feed pets, pets please owners

B) A tail is a part of Dogs and Cats

C) A Cat is a kind of Pet

D) None of the above.

xviii. Attributes usually correspond to _____

A) Verbs B) Adjectives C) Noun D) Places

xix. NOT a basic type of attribute

A) Single value attributes B) Multi value attributes

C) Reference to another object D) Coupling

xx. If you have more than one class that provides similar services is called _____

A) Method classes B) Redundant Classes

C) Simple Classes D) Object classes

Part B

Answer **all** the Questions. **Each** question carries **ten** marks. (4Qx10M=40M)

2. A) Consider XYZ Banking system. Find out the following relationship in this system.

(a) Association (b) Aggregation (c) Generalization (6M)

B) Draw a sequence diagram for ATM machine and identify the methods. (4M)

3. Draw a object oriented design process diagram and explain the various steps involved in this process. (10M)

4. A) What is an attribute? Explain the various types of attributes with suitable example. (5M)

B) List and discuss the five rules for identifying bad design (5M)

5. A) Explain 3-Rules of user Interface design. (5M)

B) Design a guideline for dialog boxes with suitable illustrations. (5M)