



DHARMSINH DESAI UNIVERSITY, NADIAD
FACULTY OF TECHNOLOGY
B.TECH. SEMESTER VI [CE]

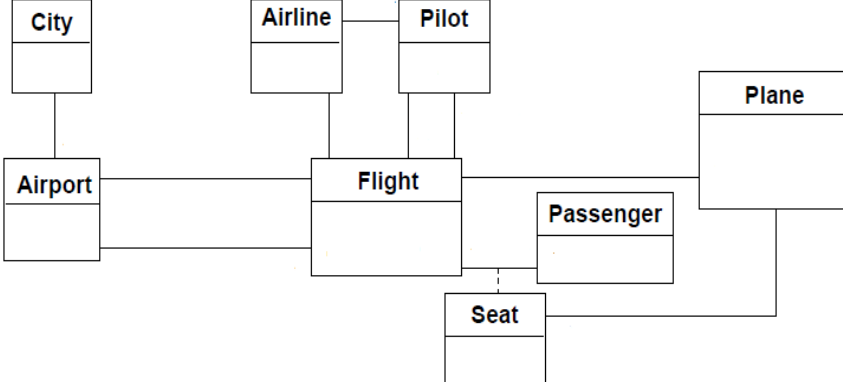
SUBJECT: (CE-620) OBJECT ORIENTED SOFTWARE ENGINEERING

Examination : First Sessional
Date : 11/01/2017
Time : 01:15 PM TO 2:30 PM

Seat No : _____
Day : Wednesday
Max. Marks : 36

INSTRUCTIONS:

1. Figures to the right indicate maximum marks for that question.
2. The symbols used carry their usual meanings.
3. Assume suitable data, if required & mention them clearly.
4. Draw neat sketches wherever necessary.

Q.1	Do as directed.	
	(a) What is self-association? Give an example to describe the concept.	[2]
	(b) "A class definition is metadata". Justify the statement with suitable example.	[2]
	(c) State the problem associated with "Implementation Inheritance". Name the technique which can solve the problem.	[2]
	(d) Give difference between "Extend" and "Generalization" relationship in use case diagram.	[2]
	(e) What is the importance of Association End Names in class Modeling ?	[2]
	(f) Give any two general guidelines for assigning operations to classes.	[2]
Q.2	Attempt Any Two from the following questions.	
	(a) Consider the following class diagram for an air transportation system and do as directed: <ol style="list-style-type: none"> 1. Assign suitable association names and multiplicity values. 2. Assign relevant attributes to each class. 3. Add the following operations to appropriate classes: Hire, fire, refuel, reserve, clean, de-ice, take off, land, repair, cancel, delay 	[6]
	(b) Consider an E-mail System with three actors: User, Virus Checker and Server. The system supports following use cases: Get E-mail, Send E-mail, Manage E-mail. Write normal scenario/description and exception scenario/description for each use case of the given system.	[6]
	(c) Explain the following concepts in the context of design optimization: <ol style="list-style-type: none"> 1. Provide efficient access paths 2. Save intermediate results 	[6]
Q.3	(a) Design a system for a movie-shop, in order to handle ordering of movies and browsing of the catalogue of the store, and user subscriptions with rechargeable cards. Only subscribers are allowed hiring movies with their own card. Credit is updated on the card during rent operations. Both users and subscribers can buy a	[6]

		movie and their data are saved in the related order. When a movie is not available it is ordered.	
	(b)	Draw use case diagram and write description of any one use case for Online Photo Management and Sharing system. The system allows users to upload pictures, make and manage albums, share albums, edit the pictures etc. The admin of the system manages users of the system and also puts various constraints such as upload limit. The system has normal users and premium users. Premium users can upload unlimited photos.	[6]
OR			
Q.3	(a)	Design Class diagram for e-voting system. Basically, e-voting is online platform which enables citizens to cast their vote online. Various parties and candidates for each party can be registered to the system. Election can be scheduled and after election is over, results are calculated.	[6]
	(b)	Draw use case diagram for online trip planner system. The system allows users to view various packages. Users can also customize given package. System accepts online payment. Admin of the system manages various users and also manages packages. Identify various use cases, draw use case diagram and write description of any one use case.	[6]