



Daffodil International University
 Department of Software Engineering
 Faculty of Science & Information Technology
 Midterm Examination, Spring 2024
 Course Code: SE 223; Course Title: Database systems
 Sections & Teachers: All
 Time: 1:30-3:00PM Date: 20-03-2024
 Marks: 25

Answer ALL Questions

1.	A Video Rental Company has several branches throughout Bangladesh. Each branch has the branch address made up of a branch number, street, city, state, and zip code, and the telephone number. Each branch is allocated staff or Manager. The Manager or staff is responsible for the day-to-day running of a given branch. Each staff member is given a staff number, name, position, and salary. Each branch has a stock of videos. The data held on a video is the catalog number, video number, title, category, daily rental, cost, status, and the names of the main actors, and the director. However, in most cases, there are several copies of each video at a branch, and the individual copies are identified using the video number. The status indicates whether a specific copy of a video is available for rent. Before hiring a video from the company, a customer must first register as a member of a local branch. The data held on a member is the member number, first and last name, address, and the date that the member registered at a branch. Once registered, a member is free to rent videos, up to a maximum of ten at any time. The data held on each video rented is the rental number, the full name and number of the member, the video number, title, and daily rental, and the dates the video is rented out and date returned. The rental number is unique throughout the company.		CLO-1, Level-2]
a)	Describe relational database and tables for the above system.	[Marks-2]	
b)	Explain data abstraction for the above mentioned system	[Marks-3]	
c)	Distinguish between schema & instance for the above management system.	[Marks- 3]	
d)	Clarify at least four functions of database administrator.	[Marks- 2]	
2.	a) Consider the question 1's scenario. Generate an ERD identifying their entity, attributes & relationship.	[Marks-4]	CLO-2 Level-3

