# Homework 4 Updating tables using SQL

# 1. The entities Flight and Passenger are linked in a one-to-many relationship.

#  The table Flight has the following compulsory fields:

 FlightID CHAR (5) (Primary key field)

 Date DATE (dd/mm/yy) (Primary key field)

 DestinationID CHAR (4)

 The table Passenger has the following compulsory fields:

 PassportNo CHAR (8) (Primary key)

 Surname VARCHAR (20) (Variable length)

 Firstname VARCHAR (20) (Variable length)

 FlightID CHAR (5)

 Date DATE

 (a) What is a composite primary key? Give an example. [2]

 (b) Identify a foreign key in the tables above. What is the purpose of the foreign key? [2]

 (c) Write an SQL statement to extract the passport numbers, surnames and firstnames of all passengers on Flight BA401 on 12/11/2016. [5]

 (d) Write an SQL statement to create the table Flight. [5]

 (e) Write an SQL statement to create the table Passenger [5]

 (f) Write an SQL statement to add two new columns for Telephone,
16 characters (variable length) and email, 20 characters (variable length) to the Passenger table. [2]

 (g) Write an SQL statement to delete the column email from the Passenger table. [2]

 (h) Write an SQL statement to insert a record for passenger Jo Harris, passport number 12345678. [2]

2. Name and briefly describe a serialisation technique which ensures that transactions do not overlap in time and ensures that updates are not lost. [3]

 TOTAL 28 marks