

H CS 2019 Task 1 Part C – Marking Instructions

Extension Questions

General marking instruction: Note that these marks do not match the allocation given in Higher SQA assessments as these focus more on Higher concepts and will group some of the marks below together. The marks below are designed to encourage completeness in answers during practise.

One mark each for:

- Correct fields/tables in SELECT/FROM
- All correct aggregate function(s) and/or calculation used with correct field(s)
- Suitable Alias used with aggregate function(s)
- All correct WHERE conditions (if required)
- All correct joins (if required)
- Correct grouping
- Correct sort (if required)

Questions

1d(i) Display the total number of adult tickets, purchased by passengers living in postcode area EH.

(4 marks)

```
SELECT SUM(adultTicket) AS [EH adult tickets]
FROM Customer, Booking
WHERE postcode LIKE "EH%"
AND Customer.customerID = Booking.customerID;
```

1d(ii) Display the total number of passengers whose flights departed in April 2018.

(5 marks)

```
SELECT SUM(adultTicket) + SUM(childTicket)
+ SUM(concessionTicket) AS [Total Number of Passengers]
FROM Booking, Flight
WHERE departureDate LIKE "%04/2018%"
AND Booking.flightID = Flight.flightID;
```

- 1d(iii) Display the average capacity of all the flights that departed from any airport with a code ending with "N".
- (4 marks)**

```
SELECT AVG(capacity) AS [Average Capacity on Glasgow Flights]
FROM Flight, Route
WHERE Flight.routeID = Route.routeID
AND departFrom LIKE "%N";
```

- 1d(iv) Display the number of customer bookings by town. This should be limited to flights that arrived at London Heathrow (LHR) in 2018.
- (6 marks)**

```
SELECT town, COUNT(*) AS [Total Boookings]
FROM Customer, Booking, Flight, Route
WHERE Customer.customerID = Booking.customerID
AND Booking.flightID=Flight.flightID
AND Flight.routeID = Route.routeID
AND arriveAT = "LHR"
AND arrivalDate LIKE "%2018"
GROUP BY town;
```

- 1d(v) Customer Grant Reid has purchased an extra travel bag for every adult and child costing £15 each. Display the total amount this customer has spent on bags.
- (5 marks)**

```
SELECT SUM(adultTicket * 15 + childTicket * 15) AS [Total Case Cost]
FROM Customer, Booking
WHERE Customer.customerID = Booking.customerID
AND forename = "Grant"
AND surname = "Reid";
```

- 1d(vi) Flight A131T531Y47 charged the following for ticket fares: adult £55, child £40, concession £30. Calculate and display each customer's name and the total fares paid by each customer on this flight.

(6 marks)

```
SELECT forename, surname,  
       SUM(adultTicket * 55  
         + childTicket * 4  
         + concessionTicket * 30) AS [Total Fares]  
FROM Customer, Booking, Flight  
WHERE Customer.customerID = Booking.customerID  
      AND Booking.flightID = Flight.flightID  
      AND Flight.flightID = "A131T531Y47"  
GROUP BY forename, surname;
```

- 1d(vii) Airport tax is charged at £7.50 for an adult and £5.00 for a child. Display the forename and surname of passengers along with the difference between the total airport tax of the adult tickets purchased and the total airport tax of the child tickets purchased. The output should be limited to flights that had one stop at AMS (Amsterdam) between the departure airport and the arrival airport.

(6 marks)

```
SELECT forename, surname,  
       Sum(adultTicket*7.5) - SUM(childTicket*5) AS [Tax Difference]  
FROM Customer, Booking, Flight, Route  
WHERE Customer.customerID = Booking.customerID  
      AND Booking.flightID=Flight.flightID  
      AND Flight.routeID = Route.routeID  
      AND midStopOne = "AMS"  
GROUP BY forename, surname;
```