FINAL
Examination Paper

(COVER PAGE)

Session: January 2013
Programme: Diploma In Information And Communication Technology (DICTN)
Course: ICT1104 : Database Management
Date of Examination: March 6, 2013
Time: 11:00am – 1:00pm  Reading Time: Nil
Duration: 2 Hours
Special Instructions:

Answer any FOUR (4) questions.

Materials permitted: Nil
Materials provided: Nil

Examiner(s): Ms. Leong Siok Jen, Light Lau Teng Lye.
Moderator: Dr. Vincent Khoo Kay Teong

This paper consists of 4 printed pages, including the cover page.
Instructions: This paper consists of SIX (6) questions. Answer any FOUR (4) questions in the answer booklet provided. All questions carry equal marks.

QUESTION 1

a) Explain ANY TWO (2) advantages and TWO (2) disadvantages of database approach. (8 marks)

b) Briefly explain FIVE (5) types of data types used in attributes structure with appropriate example. (10 marks)

c) Differentiate between primary key and foreign key. Use examples to support your argument. (7 marks)

QUESTION 2

a) Briefly explain FOUR (4) types of Form Control in MS Access. (10 marks)

b) Identify and explain FIVE (5) types of users who are involved in Database Management Systems. (10 marks)

c) Give FIVE (5) business applications that use Database Management Systems in our daily life. (5 marks)

QUESTION 3

a) Briefly explain the FOUR (4) primary MS Access Objects. (8 marks)

b) List and explain in a proper order the anatomy of reports. (9 marks)

c) Name and explain the FOUR (4) techniques used to reduce error in data entry process. (8 marks)
QUESTION 4

ReliableTravel is a newly start-up travel agency. The management would like to have a database system to keep track of all the business operations. The database system stores the following information

- Each tour would be handled by one tour guide but a tour guide can guide many tour.
- Customer can book one or more tour and a tour may have many customer booking it.

a) Draw an Entity Relationship Diagram (ERD) for the above scenario. (10 marks)
b) Produce a relational model for the above scenario. (10 marks)
c) MS Access support TWO (2) types of sub form. Name and explain the sub forms. (5 marks)

QUESTION 5

a) Explain what is normalization and the benefits it provides. (5 marks)

b) The relation below represent a scenario in a travel agency. One customer can order many travel packages and a travel package can also be order by many customers.

Travel(travel_code, travel_desc, cust_id, cust_name, cust_telno, travel_price, booking_date, staff_serve)

<table>
<thead>
<tr>
<th>travel_code</th>
<th>travel_desc</th>
<th>cust_id</th>
<th>Cust_name</th>
<th>Cust_telno</th>
<th>travel_price</th>
<th>Booking_date</th>
<th>staff_serve</th>
</tr>
</thead>
<tbody>
<tr>
<td>T01</td>
<td>Hong Kong Deluxe</td>
<td>C11</td>
<td>Alice</td>
<td>012-4419980</td>
<td>18000.00</td>
<td>1/1/2011</td>
<td>Cindy</td>
</tr>
<tr>
<td>T02</td>
<td>Europe Honeymoon</td>
<td>C11</td>
<td>Alice</td>
<td>012-4419980</td>
<td>30000.00</td>
<td>5/1/2011</td>
<td>Mary</td>
</tr>
<tr>
<td>T03</td>
<td>Thailand shopping</td>
<td>C54</td>
<td>Mrs. Chan</td>
<td>03-7772312</td>
<td>600.00</td>
<td>5/1/2011</td>
<td>Mary</td>
</tr>
<tr>
<td>T03</td>
<td>Thailand shopping</td>
<td>C11</td>
<td>Mr. Lee</td>
<td>03-4433112</td>
<td>600.00</td>
<td>10/1/2011</td>
<td>Peter</td>
</tr>
</tbody>
</table>

i) Identify the insertion, deletion and modification anomalies for the relation above. (9 marks)

ii) Normalise the table to 3NF. (11 marks)
QUESTION 6

Skybeauty has customers who book for facial appointment. After the booking information would be entered into the THREE (3) tables below:

Facial (facial_code, type, price)
Customer (cust_no, name, age, address, gender)
Booking (cust_no, date_in, date_out, room_no)

Write an SQL statement for the following.

a) List all the male customers. (3 marks)
b) Insert a new customer record into the customer table. (3 marks)
c) Delete the facial type “Anti Aging” from the facial table. (3 marks)

Based on the same table above, define the queries for the following requests in design grid form (Query Design View) for questions, (d), (e) and (f)

d) List out all the customer names who have booked for facial from 02/02/2012 till 05/10/2012 sort it according to descending order. (6 marks)
e) Define a parameter query to update the facial price information by 30% based on facial type entered. (5 marks)
f) Delete all records with the facial type “Anti Acne” from the database. (5 marks)

-The End-
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