**STUDENT’S DECLARATION OF ORIGINALITY**

By submitting this online assessment, I declare that this submitted work is free from all forms of plagiarism and for all intents and purposes is my own properly derived work. I understand that I have to bear the consequences if I fail to do so.

**E-Test Assessment Submission**

|  |  |
| --- | --- |
| Click the link to sign your attendance: | [**https://forms.gle/1gtAZHi2ACgtuX5Q7**](https://forms.gle/1gtAZHi2ACgtuX5Q7) |
| Course Code: | **AACS3013** |
| Course Title: | **Database Development And Applications** |
| Full Name: | **Tan Kang Hong** |
| Student ID: | **2002959** |
| Programme & Group: | **DCS1G5** |
| Tutor Name: | **JOOI HUANG HENG** |
| Marks: | **/50 X 2 = /100** |

**Answer ALL questions: Type your answer using 11pt Arial font.**

**Don’t type on mark columns.**

# **QUESTION 1 (a) (6 marks)**

|  |  |
| --- | --- |
| CREATE TABLE Registration {  CustomerNo varchar(10) NOT NULL,  PackageID varchar(8) NOT NULL,  RegisterDate date NOT NULL,  PRIMARY KEY(CustomerNo),  FOREIGN KEY(PackageID) references Package(PackageID)  }; |  |

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# **QUESTION 1 (b) (3 marks)**

|  |  |
| --- | --- |
| UPDATE package  SET PRICE=PRICE\*1.15, AND CHANNEL\_ID=’%2%’  WHERE PRICE=115; |  |

# **QUESTION 1 (c) (4 marks)**

|  |  |
| --- | --- |
| DELETE FROM registration  WHERE CustomerNo IN (SELECT CustomerNo  FROM customer  WHERE CustomerNo LIKE ‘%Lim Tai Ko%’); |  |

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# **QUESTION 1 (d) (2 marks)**

|  |  |
| --- | --- |
| SELECT CustomerNo,CustomerName,Gender,Address,Contact  FROM customer  WHERE Address = ‘Damansara’; |  |

# **QUESTION 1 (e) (4 marks)**

|  |  |
| --- | --- |
| **SELECT CustomerNo, PackageID, RegisterDate,CustomerName,PackageName**  **FROM registrations**  **WHERE RegisterDate >= ‘March 2021’;** |  |

# **QUESTION 1 (f) (5 marks)**

|  |  |
| --- | --- |
| SELECT C.CustomerID, CustomerName, COUNT(PackageID) AS PackageCount  FROM customer C, package P  WHERE C.CustomerID = P.CustomerID AND Price >= 100(RM)  GROUP BY C.CustomerID, CustomerName  HAVING COUNT(PackageID) > 2; |  |

# **QUESTION 2 (10 marks)**

|  |  |
| --- | --- |
|  |  |

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# **QUESTION 3 a) (10 marks)**

|  |  |
| --- | --- |
| **1NF:**  **HealthcareCentre(CustNo,CustName,CustContact,CustTypeID,TypeDesc,TreatID,TreatDesc,TreatDate,TreatTime)**  |  **Customer(CustNo,CustName,CustContact,CustTypeID,TypeDesc)**  **Treatment(CustNo\*,TreatID,TreatDesc,TreatDate,TreatTime)**  **2NF:**  **Customer(CustNo,CustName,CustContact,CustTypeID,TypeDesc)**  **Treatment(CustNo\*,TreatID\*,TreatDate,TreatTime)**  **TreatmentDetail(TreatID,TreatDesc)**  **3NF:**  **Customer(CustNo,CustName,CustContact,CustTypeID\*)**  **CustomerType(CustTypeID,TypeDesc)**  **Treatment(CustNo\*,TreatID\*,TreatDate,TreatTime)**  **TreatmentDetail(TreatID\*,TreatDesc)** |  |

# **QUESTION 3 b) (i) (2 marks)**

|  |  |
| --- | --- |
| It is no possible to add a new customer unless that new customer receives any treatment. |  |

# **QUESTION 3 b) (ii) (2 marks)**

|  |  |
| --- | --- |
| When we update the treatment description of T003 from Body Slimming to Treadmill, we have to also update the similar treatment description in another row, otherwise it will cause data inconsistency. |  |

# **QUESTION 3 b) (iii) (2 marks)**

|  |  |
| --- | --- |
| When we delete the customerNo (C1005)record, we have to delete the treatment datails:Foot Massage(T002). |  |