

**SOUTH EASTERN UNIVERSITY OF SRI LANKA**  
**FIRST EXAMINATION IN BACHELOR OF INFORMATION AND**  
**COMMUNICATION TECHNOLOGY 2015/2016**

**SEMESTER – I, JULY 2017**

**CIS 11051 – PRACTICAL FOR DATABASE DESIGN**

**Answer all Questions**

**Time: 03 hours**

- Create a folder in the desktop with your registration number.
- Database created for Question No 01 should be saved with in the folder you created.
- Screenshots of the answer for each sub question of question no 02 and the sql statement should be copied to a word document with proper numbering and document should be named as 'CIS11051\_Que2\_Answer' and saved in the same folder in the desktop.
- Frequently save your works.

**Question No 01.**

"ABC Company Holdings" sells mobile phones and laptops with the branches located in various districts. They maintain 3 separate data sheets to keep their company details as follows.

**"Item"** datasheet - Details of electric and electronic products

**"Distribution"** datasheet - Details of stored quantities in their branches

**"Location"** datasheet - Details of the branches

Based on this case, answer the following questions.

- a) Create a blank database named as **"ABC Company Holdings"**.

(05 Marks)

- b) Create a table **"Item"** using following structure and set item\_code as the primary key.

Field Name	Data Type	Properties
item_code	Short Text	Primary Key
It_description	Short Text	-
It_unit_price	Currency	-
It_imported	Yes/No	-
It_supplier	Short Text	-

(10 Marks)

- c) Add the following records to above table.

Item_code	it_description	it_unit_price	it_imported	it_model
IT10	P8 Lite	\$ 550	Yes	Huawei
IT11	LG K10 2017	\$ 400	Yes	LG
IT12	Samsung Z2	\$ 560	Yes	Samsung
IT13	Guru Music 2	\$ 30	Yes	Samsung
IT14	K6 Power	\$ 45	Yes	Lenevo
IT15	EWIS M1400CT	\$ 600	No	e-wis
IT16	EWIS T116C	\$ 550	No	e-wis
IT17	Inspiron113000	\$ 480	Yes	Dell

(10 Marks)

- d) Create a table **"Distribution"** with suitable structure to add the following records to the same table.

st_item_code	st_location_code	st_qty
IT10	L01	30
IT10	L03	03
IT10	L04	10
IT11	L02	25
IT11	L04	12
IT13	L04	50
IT16	L02	05
IT17	L03	10
IT17	L02	07
IT17	L04	10

(20 Marks)

- e) Create a table **"Location"** with the following structure.

Field_Name	Data Type	Length	Properties
lo_code	Short Text	4	Primary Key
lo_name	Short Text	50	
lo_contact	Short Text	20	-

(10 Marks)

- f) Create a form based on the “**Location**” table structure and save it as “**location\_form**”. In the form, include the following buttons.

Name of the Button	Function or Operation
Previous	Go to previous record
Save	Save the record
Add	Add new record
Next	Go to next record

(20 Marks)

- g) Enter following data into “**Location**” table using the above form.

lo_code	lo_name	lo_contact
L01	Colombo	0112974832
L02	Kalutara	0345675843
L03	Galle	0912597757
L04	Matara	0415678854

(10 Marks)

- h) Define relationships among “**Item**”, “**Description**” and “**Location**” tables.

(05 marks)

- i) Create the following Queries using Query Wizard and save them with relevant question number.

- i. Retrieve all records from Item table where unit\_price is greater than \$200.00.

(05 marks)

- ii. Retrieve item codes which are stored in the location L01.

(05 marks)

- iii. List the item descriptions begin with letter E.

(05 marks)

- iv. Retrieve description, stored quantity and location name where items unit\_price exceeds \$200.00.

(05 marks)

- v. Get the summation of quantities stored in all locations.

(05 marks)

- vi. Write a parameter query to find details of item description, stored location code and the quantity for a particular location code (Location code should be given by the keyboard during the run time of the query).  
(05 marks)
- vii. Display the unit price by Increasing 10% for only imported items (Display item code and the new unit price).  
(05 marks)
- viii. Make a new table called "imported items" to store the details of imported items from the item table using Make-Table Query (Your new table should be included all fields except the imported field).  
(05 marks)
- j) Create reports using report wizard for the followings.
- i. A basic report to get a print out of item code, Description and the Unit Price of all Items.  
(05 marks)
- ii. A report to get the all details of item table (Items should be grouped under the supplier).  
(05 marks)
- iii. A dynamic report to display the details of item description, stored location code and the quantity which are available at a specific location code.  
(05 marks)
- k) Create a form for the item table using form design view.  
(05 marks)

**[150 Marks]**

**Question No 02.**

'Laavin E-Hotel Management System' stores details of hotels available in various parts of the country and allows guests to reserve rooms online. The following is the schema of the database maintained by them.

**Hotel** (hotelNo, hotelName, city)

**Room** (roomNo, hotelNo, type, price)

**Booking** (hotelNo, guestNo, dateFrom, dateTo, roomNo)

**Guest** (guestNo, guestName, guestAddress)

For each of the question [2(a) – 2(r)] given below, **write SQL statements** and execute them to display the output.

- Create a database named as 'Hotel Management System'.  
(05 Marks)
- Create four tables namely Hotel, Room, Booking and Guest, given in the schema above within the database created in 2(a).  
(20 Marks)
- Insert the following records in to each table.

**Hotel Table**

hotelNo	hotelName	city
H111	Cinnamon Grand	Colombo
H112	Cinnamon Lakeside	Colombo
H113	Hilton Residence	Colombo
H114	Jetwing Hotel	Dambulla
H115	Elephant Corridor Hotel	Dambulla
H116	The Hideout Sigiriya	Sigiriya
H117	Saunter Paradise Hotel	Sigiriya

**Room Table**



roomNo	hotelNo	type	price
1	H111	S	\$90
3	H111	D	\$180
2	H112	S	\$150
8	H113	D	\$300
9	H114	S	\$200
5	H115	D	\$400
7	H116	S	\$200
4	H117	S	\$350

### Booking Table

hotelNo	guestNo	dateFrom	dateTo	roomNo
H117	G111	Date'2017-07-01'	Date'2017-07-30'	4
H111	G112	Date'2017-08-01'	Date'2016-08-01'	1
H114	G113	Date'2017-08-10'	Date'2017-08-11'	9
H115	G114	Date'2017-08-10'	Date'2017-08-10'	8
H116	G115	Date'2017-09-10'	-	7

### Guest Table

guestNo	guestName	guestAddress
G111	Jayasinghe	Kandy
G112	Shaamika	Kandy
G113	Chathurani	Ambalangoda
G114	Satheesh	Vavuniya

(20 Marks)

d. List out the full details of all hotels.

(05 Marks)

e. List out the full details of all hotels in Colombo.

(05 Marks)

f. List out the names and addresses of all guests in Kandy, alphabetically ordered by name.

(05 Marks)

- g. List out all double or single rooms with a price below \$200.00 per night, in ascending order of price.

(05 Marks)

- h. List the bookings for which no dateTo has been specified.

(05 Marks)

- i. How many hotels are there?

(05 Marks)

- j. What is the average price of a room?

(05 Marks)

- k. What is the total revenue per night from all double rooms?

(05 Marks)

- l. How many different guests have made bookings for August?

(10 Marks)

- m. List the price and type of all rooms at the Cinnamon Grand.

(10 Marks)

- n. List all guests currently staying at the Cinnamon Grand.

(10 Marks)

- o. List the number of rooms in each hotel.

(05 Marks)

- p. List the number of rooms in each hotel in Colombo.

(10 Marks)

- q. What is the average number of bookings for each hotel in August?

(10 Marks)

- r. What is the lost income from unoccupied rooms at each hotel today?

(10 Marks)

**[150 Marks]**