

SECTION A

[40 Marks]

Answer ALL questions in this section.

A1. State whether the following statements are TRUE or FALSE. [15]

- (a) Weekday (date) function extracts the month from a date.
- (b) No keyword is needed when rename a table alias.
- (c) In sub query, the outer query will be executed first.
- (d) There is no default order in a SELECT statement.
- (e) The name given to the column aliases can include space without any additional symbol.
- (f) DISTINCT keyword is use to eliminate duplicate rows.
- (g) Count (*) function returns the number of non-null rows in the columns identified by expression.
- (h) A column or tuple contains one particular type of information that kept about all rows in the table.
- (i) A single row or attributes representing all data required for a particular object.
- (j) Retrieve an unknown value from a table, IS NULL operator is use.
- (k) Relation is also known as table in relation database environment.
- (l) Default format for Date in Access is MM/DD/YYYY.
- (m) Relational database uses one-dimensional table to store information.
- (n) Microsoft Access is an example of relational database.
- (o) DBMS is database software.

A2. Answer the following questions based on the table below.

TOY

ToyID	ToyName	Quantity	Price
T001	Pokemon	8	15
T002	Teddy Bear	5	10
T003	Barbie	10	20
T004	Bug Bunny	5	13

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- (i) Write the SQL statements to display the ToyName and the Total Price for each product calculated by multiplying quantity by the price. Rename the calculation column as 'Total Price'. [5]
- (ii) Write the SQL statements to display the ToyID and ToyName for all the toys that start with the letter 'B'. [4]
- A3.** Write an SQL statement to display the warranty date which is six months from the date of purchase (purchase_date). Using a table called Purchases. [6]
- A4.** Answer the question below based on this table. [6]
Table Name: EMPLOYEE

EmpName	Country
Catherine	Singapore
Jonas	Canada
Henry	Indonesia

Write the SQL statement to concatenate both columns and add literals in between so that the output given follows this example: - Catherine was born in Singapore.

- A5.** Write a SQL statement that displays the result of the calculation add 10 to 219 and multiply the result by 14. [4]

SECTION B

[60 Marks]

Answer ANY TWO questions in this section.

B1.

[30 marks]

- (a) Describe FOUR characteristics that distinguish the database approach with the file-based approach. [12]
- (b) Provides EIGHT benefits of using database approach as compare to using the file-based system. [8]
- (c) Answer the following question based on the table below.

Employee

EmpID	EmpName	Job	Salary	Commission
E003	Lewis Operation	Executive	3400	23:00
E007	Amanda	HR Manager	4000	
E009	Keith	Sales Manager	2500	500
E012	Bobby	Sales Assistant	1800	1500

Answer the following question based on the table above. You have to write the SQL statement to achieve the following task.

- (i) Display the total salary of all the employees and change the heading to 'Total Salary'. [4]
- (ii) Display the total income of all the employees (hint: include commission) and change the heading to 'Total Income'. [6]

B2.

[30 marks]

- (a) Explain the objective of 'ORDER BY' clause. [3]
- (b) Write a select statement to arrange the column 'Total' start from the highest value from the table Product. Show all records. [4]
- (c) (i) The following SELECT statement is a sub-query that used to retrieve the employee's name (Ename) with the lowest sales commission (S_comm) from the Employee table. There are FOUR errors in the statement. Identify and explain why it is an error. [8]
- Select ename
From employee
Where salary > (select lowest(S_comm)
From employee;
- (ii) Write the complete SELECT statement with the correction for those errors you had identified in part (i). [1]
- (d) Explain the usage of this SELECT statement. [2]
- SELECT *
From Student
Where StudId = [Enter a student id];
- (e) Inside a table named payment there are three columns named id, payment_date and payment. [8]

Id	payment_date	payment
101	12-dec-2013	4000
102	14-aug-2013	5000
104	16-aug-2013	8900

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Write a SQL statement to display id, and payment date for payment done in the month of august, and payment amount is above 8000.

August Payment

Id of 102 payments is done on 16, august, 2013

- (f) A table called *employee* contains the following columns employee id named *empid*, employee name named *empname* and appointment date named *joindate* .

Write an SQL statement to display employee name, joindate, probation.

Probation time is calculated as 60 days after the joindate.

[4]

B3.

[30 marks]

- (a) Answer the question (i) to (iii), based on the table below.

The table name is PRODUCT.

Product ID	Product Name	Unit Price
1010	Basketball	4.95
1020	Football	5.65
1030	Soccer ball	12.95
1040	Volleyball	3.25
1050	Golf balls	

- (i) Write an SQL statement to display the number of records in the PRODUCT table. [3]
- (ii) Write the SELECT statement to convert the *null* value of the unit price column to 'Not available'. [4]
- (iii) Write the statement to display the 'Product Name' and the 'Price' of all items from the PRODUCT table. The price column should be display in this format \$4.95. [9]

Sample Output:

Product Name	PRICE \$
Basketball	\$2.50

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- (b) Find the customer_number, first_name and available credit (av_credit) for all customers in the CUSTOMER table who have an available credit (av_credit) between 500 and 1000. [7]
- (c) List the customer_number, first_name and customer_balance of all customers in the CUSTOMER table, after sorting by customer_balance in ascending order. [7]

-END OF PAPER-