Database Technologies (DBT)

Date:

Question generated by: Mr. Ashok Pate

Topic / Module: DBT (Session 1)

Q. No.1

Which are the different types of DBMS?

Answer Choices

- A. Relational database
- B. Object oriented database
- C. Hierarchical database
- D. All of the above

Correct Answer: D

Difficulty Level: Easy

Reference: (Name of books)

(If question taken from book) (Mention name of the book, author, ISBN)

Q. No. 2

Which of the following systems use RDMS?

Answer Choices

- A. Oracle
- B. Microsoft SQLServer
- C. dbase
- D. Both A and B

Correct Answer: D

Difficulty Level: Easy

Reference: (Name of books)

(If question taken from book) (Mention name of the book, author, ISBN)

Topic / Module: DBT (Session 2)

Q. No.1

In E-R Diagram multi-valued attributes are represented by?

Answer Choices

    A. Rectangle

    B. Triangle

    C. Ellipse

    D. Double Ellipses

Correct Answer: D

Difficulty Level: Easy

Reference: (Name of books)

(If question taken from book) (Mention name of the book, author, ISBN)

Q. No. 2

What is TRUE about Weak Entity Set?

Answer Choices

    A. It does not have enough attributes to build a primary key.

    B. It is represented by a double rectangle symbol.

    C. The relationship between one strong and a weak entity set shown by using the double diamond symbol.

    D. All of the above options are true.

Correct Answer: D

Difficulty Level: Easy

Reference: (Name of books)

(If question taken from book) (Mention name of the book, author, ISBN)

Topic / Module: DBT (Session 3)

Q. No.1

One of the consequences of data redundancy is?

Answer Choices

    A. Consistent data

    B. Data inconsistency

    C. Storing data at one place

    D. None of the above.

Correct Answer: B

Difficulty Level: Easy

Reference: (Name of books)

(If question taken from book) (Mention name of the book, author, ISBN)

Q. No. 2

If a relation contains _____ or _____ attribute, it violates first normal form.

Answer Choices

    A. multi-valued

    B. single value

    C. composite value

    D. Both A and C

Correct Answer: D

Difficulty Level: Intermediate

Reference: (Name of books)

(If question taken from book) (Mention name of the book, author, ISBN)

Topic / Module: DBT (Session 4)

Q. No.1

Which value will show an error when stored in "float (4, 2)"?

Answer Choices

    A. 12.11

    B. 13.1

    C. 1.12

    D. 123.44

Correct Answer: D

Difficulty Level: Easy

Reference: (Name of books)

(If question taken from book) (Mention name of the book, author, ISBN)

Q. No. 2

Analyse the following statement.

CREATE TABLE dept (deptno int, dname varchar(10), loc varchar(10)) engine=InnoDB;

A database programmer wants to sort the data in ascending order of dname column.

Which of the following statement he will issue.

Answer Choices

    A. SELECT * FROM dept dname ORDER BY;

    B. SELECT * FROM dept ORDER BY dname ASC;

    C. SELECT * FROM dept ORDER BY 2 ASC;

    D. Both B and C.

Correct Answer: D

Difficulty Level: Intermediate

Reference: (Name of books)

(If question taken from book) (Mention name of the book, author, ISBN)

Q. No. 3

In which order does the database server evaluate clauses?

Answer Choices

    A. HAVING, WHERE, GROUP BY

    B. WHERE, GROUP BY, HAVING

    C. GROUP BY, HAVING, WHERE

    D. WHERE, HAVING, GROUP BY

Correct Answer: B

Difficulty Level: Easy

Reference: (Name of books)

(If question taken from book) (Mention name of the book, author, ISBN)

Q. No.4

Write a query to filter those employees who likes to leave in the cities other than Paris and Rome.

Answer Choices

    A. SELECT * FROM emp WHERE city NOT IN ('Paris', 'Rome');

    B. SELECT * FROM emp WHERE NOT city IN ('Paris', 'Rome');

    C. Both A and B are valid statements.

    D. None of the above.

Correct Answer: C

Difficulty Level: Intermediate

Reference: (Name of books)

(If question taken from book) (Mention name of the book, author, ISBN)

Q. No. 5

Which of the following is correct to calculate the total sum of salary deptno wise where more than two employees exist?

Answer Choices

    A. SELECT deptno, sum(sal) As totalsal FROM emp GROUP BY deptno HAVING COUNT(empno) = 2;

    B. SELECT deptno, sum(sal) As totalsal FROM emp GROUP BY deptno where COUNT(empno) = 2;

    C. SELECT deptno, sum(sal) As totalsal FROM emp GROUP BY deptno HAVING COUNT(empno) > 2;

    D. SELECT deptno, sum(sal) As totalsal FROM emp GROUP BY deptno where COUNT(empno) > 2;

Correct Answer: C

Difficulty Level: Intermediate

Reference: (Name of books)

(If question taken from book) (Mention name of the book, author, ISBN)

Q. No.6

Examine the following statement.

mysql> SELECT if(10="10",'A',"a");

What will be the output?

Answer Choices

    A. A

    B. a

    C. Error: because lowercase "a" is given double quotes.

    D. None of the above.

Correct Answer: A

Difficulty Level: Intermediate

Reference: (Name of books)

(If question taken from book) (Mention name of the book, author, ISBN)

Topic / Module: DBT (Session 5)

Q. No.1

Which join is equivalent to Cartesian Product?

Answer Choices

   A. INNER JOIN

   B. OUTER JOIN

   C. CROSS JOIN

   D. NATURAL JOIN

Correct Answer: C

Difficulty Level: Easy

Reference: (Name of books)

(If question taken from book) (Mention name of the book, author, ISBN)

Q. No. 2

Examine the following statement.

SELECT 34 UNION SELECT 12;

How many row(s) will be displayed?

Answer Choices

   A. 1

   B. 2

   C. 0

   D. 4

Correct Answer: B

Difficulty Level: Easy

Reference: (Name of books)

(If question taken from book) (Mention name of the book, author, ISBN)

Q. No. 3

Which are the join types?

Answer Choices

    A. Cross join

    B. Natural join

    C. Inner join

    D. All of the above

Correct Answer: D

Difficulty Level: Easy

Reference: (Name of books)

(If question taken from book) (Mention name of the book, author, ISBN)

Topic / Module: DBT (Session 6)

Q. No.1

Which of the following is the correct statement which will create a VIEW?

Answer Choices

    A. CREATE VIEW view1 AS SELECT 1;

    B. CREATE OR REPLACE VIEW view1 AS SELECT 1;

    C. CREATE OR REPLACE VIEW view1 AS SELECT 1 as R1;

    D. All of the above statement are valid which will create a VIEW object.

Correct Answer: D

Difficulty Level: Difficult

Reference: (Name of books)

(If question taken from book) (Mention name of the book, author, ISBN)

Q. No. 2

Which of the following query display all cars whose price is equal to Miller's car?

Answer Choices

    A. SELECT * FROM carlist WHERE price = SELECT price FROM carlist WHERE
       name = 'MILLER';

B. SELECT * FROM carlist WHERE price IN SELECT * FROM carlist WHERE name = 'MILLER';

C. SELECT * FROM carlist WHERE price IN SELECT price FROM carlist WHERE name = 'MILLER';

D. None of the above.

Correct Answer: D

Difficulty Level: Intermediate

Reference: (Name of books)

(If question taken from book) (Mention name of the book, author, ISBN)

Topic / Module: DBT (Session 7)

Q. No.1

What is the syntax to create UNIQUE Indexes?

Answer Choices

A. CREATE INDEX index_name ON table_name(column_name);

B. CREATE UNIQUE INDEX index_name on table_name(column_name);

C. CREATE INDEX UNIQUE index_name on table_name(column_name);

D. CREATE INDEX index_name on table_name(DISTINCT column_name);

Correct Answer: B

Difficulty Level: Easy / Intermediate / Difficult

Reference: (Name of books)

(If question taken from book) (Mention name of the book, author, ISBN)

Q. No. 2

What command you will issue to create a TEMPORARY table ORDERS?

Answer Choices

A. CREATE TABLE TEMPORARY ORDERS(column definition,…)

B. CREATE TABLE ORDERS(column definition,…) as TEMPORARY

C. CREATE TEMPORARY TABLE ORDERS(column definition,…)

D. CREATE TEMP TABLE ORDERS(column definition,…)

Correct Answer: C

Difficulty Level: Intermediate

Reference: (Name of books)

(If question taken from book) (Mention name of the book, author, ISBN)

Q. No.3

Which of the following is default storage engine in MySQL 8.0?

Answer Choices

    A. MyISAM

    B. MEMORY

    C. InnoDB

    D. BLACKHOLE

Correct Answer: C

Difficulty Level: Easy

Reference: (Name of books)

(If question taken from book) (Mention name of the book, author, ISBN)

Topic / Module: DBT (Session 8)

Q. No.1

Analyse the following stored procedure.

```
DROP PROCEDURE if exists pro1;
delimiter $
CREATE PROCEDURE pro1()
    beginLabel: begin
        set @x1 := "Hello World";
        select x1;
    end beginLabel$
delimiter ;
```

mysql> CALL pro1();

What will be the output?

Answer Choices

    A. Hello World

    B. Error, because Unknown column 'x1' in 'field list'.

    C. Error, because invalid label_name.

    D. Error, because @x1 is not declared.

Correct Answer: B

Difficulty Level: Difficult

Reference: (Name of books)

(If question taken from book) (Mention name of the book, author, ISBN)

Q. No. 2

Analyse the following stored procedure.

```
DROP PROCEDURE IF EXISTS pro1;
delimiter $$
CREATE PROCEDURE pro1(OUT x INT)
 begin
   SELECT COUNT(*) INTO x FROM emp;
   set x=1001;
 end$$
delimiter ;
```

mysql> CALL pro1(@a);

mysql> SELECT @a;

What will be the output?

Note: EMP table has 28 records.

Answer Choices

    A. 28

B. 1001

C. NULL

D. 1029

Correct Answer: B

Difficulty Level: Intermediate

Reference: (Name of books)

(If question taken from book) (Mention name of the book, author, ISBN)

Q. No.3

Analyse the following stored procedure.

Note: There are few rows for deptno 10,20,30.

DROP PROCEDURE IF EXISTS pro1;

delimiter $$

CREATE PROCEDURE pro1(x int)

 begin

  IF EXISTS(SELECT True FROM emp) THEN

     SELECT * from emp WHERE deptno=x;

  ELSE

     SELECT "Employee not found" AS R1;

  END IF;

 end$$

delimiter ;

mysql> CALL pro1(10);

What will be the output?

Answer Choices

   A. Will display all records whose deptno is 10.

   B. Will display "Employee not found" message.

   C. error, invalid IF condition.

D. error, invalid delimiter character.

Correct Answer: A

Difficulty Level: Difficult

Reference: (Name of books)

(If question taken from book) (Mention name of the book, author, ISBN)

Topic / Module: DBT (Session 9)

Q. No.1

Analyse the following stored procedure.

```
DROP PROCEDURE IF EXISTS pro1;
delimiter $$
CREATE PROCEDURE pro1()
 begin
   IF (SELECT 1-1) THEN
      SELECT "Hello";
   ELSE
      SELECT "World";
   END IF;
end$$
delimiter ;

mysql> CALL pro1();
```
What will be the output?

Answer Choices

    A. Hello

    B. World

    C. Invalid syntax of IF flow-control statement.

    D. None of the above.

Correct Answer: B

Difficulty Level: Difficult

Reference: (Name of books)

(If question taken from book) (Mention name of the book, author, ISBN)

Q. No. 2

Examine the following code.


```
DROP PROCEDURE IF EXISTS pro1;
delimiter $$
CREATE PROCEDURE pro1(IN x int)
begin
  CASE when x=10 THEN
    SELECT concat("The value of x is equal ", x);
  WHEN x>=10 THEN
    SELECT concat("The value of x is greater than 10");
  ELSE
    SELECT "Invalid case";
 END CASE;
 end$$
delimiter ;
```

mysql> CALL pro1(10);

What will be the output?

Answer Choices

    A. The value of x is equal 10.

    B. The value of x is greater than 10.

    C. Invalid case

    D. Compilation error.

Correct Answer: A

Difficulty Level: Difficult

Reference: (Name of books)

(If question taken from book) (Mention name of the book, author, ISBN)

Q. No.3

Examine the following code.


```
DROP PROCEDURE IF EXISTS pro1;
delimiter $$
CREATE PROCEDURE pro1()
begin
  CASE when 10 THEN
    SELECT CONCAT("Hello");
  ELSE
     NULL;
  END CASE;
end$$
delimiter ;
```


```
mysql> CALL pro1(10);
```
What will be the output?

Answer Choices

    A. Hello

    B. Invalid syntax of CONCAT function.

    C. Compilation error.

    D. Invalid delimiter character.

Correct Answer: C

Difficulty Level: Difficult

Reference: (Name of books)

(If question taken from book) (Mention name of the book, author, ISBN)

Topic / Module: DBT (Session 10)

Q. No.1

Which of the following MySQL function is used to find the length of string.

Answer Choices

- A. LEN(str)
- B. LENGTH(str)
- C. STRING_LENGTH(str)
- D. All of the above.

Correct Answer: B

Difficulty Level: Easy

Reference: (Name of books)

(If question taken from book) (Mention name of the book, author, ISBN)

Q. No. 2

The SQL function ABS(-50) gives value as

Answer Choices

- A. -50
- B. 0
- C. 50
- D. NAN

Correct Answer: C

Difficulty Level: Easy

Reference: (Name of books)

(If question taken from book) (Mention name of the book, author, ISBN)

Topic / Module: DBT (Session 11)

Q. No.1

A database programmer wants to fetch data from an explicit cursor. What is the following statement he will apply.

Answer Choices

    A. fetch cousor_name into variable_list;

    B. fetch variable_list from cousor_name;

    C. fetch cousor_name in variable_list;

    D. fetch cousor_name into &variable_list;

Correct Answer: A

Difficulty Level: Intermediate

Reference: (Name of books)

(If question taken from book) (Mention name of the book, author, ISBN)

Q. No. 2

Which of the following is true about the CURSOR.

Answer Choices

    A. The cursor declaration must be given before the BEGIN statement.

    B. The cursor declaration must be after any exception handler declaration.

    C. The cursor declaration must be after any variable declaration.

    D. All of the above statement are false.

Correct Answer: C

Difficulty Level: Easy

Reference: (Name of books)

(If question taken from book) (Mention name of the book, author, ISBN

Topic / Module: DBT (Session 12)

Q. No.1

In an UPDATE trigger, _____ can be used;

Answer Choices

    A. NEW.col_name

    B. NEWER.col_name

    C. OLD.col_name

    D. Both NEW.col_name and OLD.col_name can be used.

Correct Answer: D

Difficulty Level: Intermediate

Reference: (Name of books)

(If question taken from book) (Mention name of the book, author, ISBN)

Q. No. 2

Examine the following TRIGGER code and find on which line number the error will occur.

Line 1. DROP TRIGGER IF EXISTS t1;

Line 2. delimiter $$

Line 3. CREATE TRIGGER t1 AFTER INSERT ON account

Line 4.   FOR EACH ROW

Line 5.   BEGIN

Line 6.   IF NEW.amount < 0 THEN

Line 7.   SET NEW.amount = 0;

Line 8.   ELSEIF NEW.amount > 100 THEN

Line 9.   SET NEW.amount = 100;

Line 10.   END IF;

Line 11. END$$

Line 12. delimiter ;

Answer Choices

    A. Line 3

    B. Line 8

    C. Line 11

    D. This trigger has no error.

Correct Answer: A

Difficulty Level: Difficult

Reference: (Name of books)

(If question taken from book) (Mention name of the book

Topic / Module: DBT (Session 13)

Q. No.1

Which of the following are MySQL exception handler_action.

Answer Choices

    A. CONTINUE

    B. EXIT

    C. Both CONTINUE and EXIT

    D. None of the above.

Correct Answer: C

Difficulty Level: Intermediate

Reference: (Name of books)

(If question taken from book) (Mention name of the book, author, ISBN)

Q. No. 2

Examine the following STORED PROCEDURE and find on which line number the error will occur.

Line 1. DROP PROCEDURE IF EXISTS pro1;

Line 2. delimiter $$

Line 3. CREATE PROCEDURE pro1()

Line 4. BEGIN

Line 5.   DECLARE x INT;

Line 6.   DECLARE EXIT HANDLER FOR 1146 SELECT "table not found";

Line 7.   DECLARE c1 CURSOR FOR SELECT * FROM dept;

Line 8. END$$

Line 9. delimiter ;

Answer Choices

    A. Line 5

    B. Line 6

C. Line 7

D. Line 8

Correct Answer: C

Difficulty Level: Difficult

Reference: (Name of books)

(If question taken from book) (Mention name of the book

Topic / Module: DBT (Session 14)

Q. No.1

Which of the following is true about the field name _id?

Answer Choices

    A. it is reserved for use as a primary key

    B. it is immutable

    C. its value must be unique in the collection

    D. All of the above is true.

Correct Answer: D

Difficulty Level: Easy

Reference: (Name of books)

(If question taken from book) (Mention name of the book, author, ISBN)

Q. No. 2

MongoDB is a _____ database that provides high performance, high availability, and easy scalability.

Answer Choices

    A. graph

    B. key value

    C. document

    D. all of the above

Correct Answer: C

Difficulty Level: Easy

Reference: (Name of books)

(If question taken from book) (Mention name of the book

Topic / Module: DBT (Session 15 & 16)

Q. No.1

The ORDER of documents returned by a query is not defined unless you specify a

_____ method.

Answer Choices

    A. sortfind()

    B. sortelse()

    C. sort()

    D. None of the above

Correct Answer: C

Difficulty Level: Easy

Reference: (Name of books)

(If question taken from book) (Mention name of the book, author, ISBN)

Q. No. 2

Which of the following is syntax for getting the minimum value?

Answer Choices

    A. { $minimum: }

    B. { $min: }

    C. { minimum: }

    D. { min: }

Correct Answer: B

Difficulty Level: Easy

Reference: (Name of books)

(If question taken from book) (Mention name of the book

Q. No.3

Which of the following statement can be given to create a Capped Collection?

Answer Choices

    A. db.createCollection("log1", { capped : true, size : 5242880, max : 5000 })

    B. db.createCollection("log1", { capped : 1, size : 5242880, max : 5000 })

    C. Both A and B can be given to create a Capped Collection

    D. None of the above.

Correct Answer: C

Difficulty Level: Difficult

Reference: (Name of books)

(If question taken from book) (Mention name of the book, author, ISBN)

Q. No. 4

What is equivalent MongoDB query for the following SQL statement.

SELECT * FROM emp WHERE job != "manager";

Answer Choices

    A. db.emp.find({ job: { $!= "manager" } });

    B. db.emp.find({ $ne: {job: "manager" }});

    C. db.emp.find({ job: { $ne: "manager" } });

    D. db.emp.find({ job <> "manager" });

Correct Answer: C

Difficulty Level: Intermediate

Reference: (Name of books)

(If question taken from book) (Mention name of the book

Total Number of Questions Generated: __40_____