Built-In Functions And Grouping Result

Workbook

Answer the following

1. _____ function is used to find the maximum value in a column.

2. _____ function is used to compare dates.

3. _____ function is used to get the current time in MYSQL.

4. _____ function converts a field to Uppercase.

5. _____ function returns count of rows in a table.

6. _____ function is used to calculate the arc sine of a value.

7. The function SIGN(-50) gives value as _____

8. The function ABS(-50) returns _____

9. The output of day('2008-01-12') would be same as that of day('12.01.2008'). (True / False)

10. What will be the output of the following query? _____

    `SELECT ROUND(12345, -2), ROUND(12.345,2), ROUND(12.345,3) FROM DUAL;`

11. What will be the output of the following query?_____

    `SELECT SUBSTR('Talent Sprint', -10) FROM DUAL;`

12. What will be the output of the following query?_____

    `SELECT DAYOFWEEK('2013-07-16') FROM DUAL;`

Exercises

- Write the expected output, or compiler errors if any, for each of the following programs.

Program 1

```
MYSQL> SELECT * FROM TEAMSTATS;

NAME       POS AB   HITS WALKS SINGLES DOUBLES TRIPLES HR SO
---------- --- ---- ----- ------- ------- ------- -- --
JONES      1B  145 45   34    31      8       1       5  10
DONKNOW    3B  175 65   23    50      10      1       4  15
WORLEY     LF  157 49   15    35      8       3       3  16
DAVID      OF  187 70   24    48      4       0       17 42
HAMHOCKER  3B  50  12   10    10      2       0       0  13
CASEY      DH  1   0    0     0       0       0       0  1


6 rows selected.
```

Q1: What will be the output of the query given below?
SELECT SUM(SINGLES) TOTAL_SINGLES FROM TEAMSTATS;

Q2: What will be the output of the query given below?
SELECT SUM(SINGLES) TOTAL_SINGLES, SUM(DOUBLES) TOTAL_DOUBLES,
SUM(TRIPLES) TOTAL_TRIPLES, SUM(HR) TOTAL_HR FROM TEAMSTATS;

Q3: What will be the output of the query given below?
SELECT SUM(HITS)/SUM(AB) TEAM_AVERAGE FROM TEAMSTATS;

Q4: What will be the output of the query given below? SELECT
SUM(NAME) FROM TEAMSTATS;

Q5: What will be the output of the query given below?
SELECT COUNT(*) FROM TEAMSTATS WHERE HITS/AB < .35;

Q6: What will be the output of the query given below?
SELECT COUNT(NAME) NUM_BELOW_350 FROM TEAMSTATS WHERE HITS/AB
< .35;

Program 2

```
MYSQL> SELECT * FROM TEAMSTATS;

NAME       POS AB  HITS WALKS SINGLES DOUBLES TRIPLES HR SO
---------  --- --- ---- ----- ------- ------- ------- -- --
JONES      1B  145 45   34    31      8       1       5  10
DONKNOW    3B  175 65   23    50      10      1       4  15
WORLEY     LF  157 49   15    35      8       3       3  16
DAVID      OF  187 70   24    48      4       0       17 42
HAMHOCKER  3B  50  12   10    10      2       0       0  13
CASEY      DH  1   0    0     0       0       0       0  1

6 rows selected.
```

Q1: What will be the output of the query given below?
SELECT AVG(SO) AVE_STRIKE_OUTS FROM TEAMSTATS;

Q2: What will be the output of the query given below?
SELECT AVG(HITS)/AVG(AB) TEAM_AVERAGE FROM TEAMSTATS;

Q3: What will be the output of the query given below?
SELECT MAX(HITS) FROM TEAMSTATS;

Q4: What will be the output of the query given below?
SELECT NAME FROM TEAMSTATS WHERE HITS = MAX(HITS);

Q5: What will be the output of the query given below?
SELECT MIN(NAME) FROM TEAMSTATS;

Q6: What will be the output of the query given below?
SELECT MIN(AB), MAX(AB) FROM TEAMSTATS;

Program 3

```
MYSQL> SELECT * FROM PROJECT;

TASK            STARTDATE ENDDATE
--------------  --------- ---------
KICKOFF MTG     01-APR-95 01-APR-95
TECH SURVEY     02-APR-95 01-MAY-95
USER MTGS       15-MAY-95 30-MAY-95
DESIGN WIDGET   01-JUN-95 30-JUN-95
CODE WIDGET     01-JUL-95 02-SEP-95
```

```
TESTING      03-SEP-95 17-JAN-96
```

6 rows selected.

Q1: What will be the output of the query given below?
SELECT TASK, STARTDATE, ENDDATE ORIGINAL_END, ADD_MONTHS(ENDDATE, 2) FROM PROJECT;

Q2: What will be the output of the query given below?
SELECT ENDDATE, LAST_DAY(ENDDATE) FROM PROJECT;

Q3: What will be the output of the query given below?
SELECT DISTINCT LAST_DAY('1-FEB-95') NON_LEAP, LAST_DAY('1-FEB-96') LEAP FROM PROJECT;

Q4: What will be the output of the query given below?
SELECT TASK, STARTDATE, ENDDATE, MONTHS_BETWEEN(STARTDATE, ENDDATE) DURATION FROM PROJECT;

Q5: What will be the output of the query given below?
SELECT STARTDATE, NEXT_DAY(STARTDATE, 'FRIDAY') FROM PROJECT;

Program 4

```
MYSQL> DESC SALES;


FIELD         TYPE        NULL
------------- ----------- -------
STORE_ID      INT(11)     YES
SALES_DATE    DATE        YES
SALES_AMOUNT  FLOAT       YES
```

Q1: Write a query to find the sales amount for each store?

Q2: Write a query to list all stores whose total sales amount is above 5000?

Q3: Write a query to find the total number of stores in the SALES table?

Q4: Write a query to find the total sales amount for STORE_ID 25 and 45?

Program 5

```
MYSQL> SELECT * FROM EXAM_RESULTS;

STUDENT_ID  FIRST_NAME    LAST_NAME EXAM_ID  EXAM_SCORE
----------- ------------- --------- -------- -----------
10          LAURA         LYNCH     1        90
10          LAURA         LYNCH     2        85
11          GRACE         BROWN     1        78
11          GRACE         BROWN     2        72
12          JAY           JACKSON   1        95
12          JAY           JACKSON   2        92
13          WILLIAM       BISHOP    1        70
13          WILLIAM       BISHOP    2        100
14          CHARLES       PRADA     2        85
9 rows selected.
```

Q1: What will be the output of the query given below?
SELECT COUNT(DISTINCT STUDENT_ID) FROM EXAM_RESULTS;

Q2: Write a query to find the average exam score for EXAM_ID = 1?

Q3: Write a query to retrieve students records whose last name starts with 'L'?

Q4: What will be the output of the query given below?
SELECT MAX(EXAM_SCORE) FROM EXAM_RESULTS WHERE EXAM_ID = 1 AND FIRST_NAME LIKE '%E%';

Q5: How many records does the following statement returns?
SELECT * FROM EXAM_RESULTS WHERE LAST_NAME LIKE '%N%' AND EXAM_SCORE > 88;

Q6: How many records does the following statement returns?
MYSQL> SELECT * FROM EXAM_RESULTS WHERE STUDENT_ID <= 12 AND EXAM_SCORE > 85;