

Solution 31 MAY 2019 Sem V 75 25 Subject code 23020 QP code 25114

Time: 2½ Hours

Total Marks: 75

Note: 1) All questions carry equal marks and are compulsory.

2) Figures to the right indicate maximum marks for a question.

- Q1 (A) Attempt any **two** sub-questions from (a), (b),(c) in MS-EXCEL (2)
(True/False)
- (a) If a row or column contains data, it cannot be hidden. **F**
- (b) One \$ sign in cell referencing is used for Absolute referencing. **F**
- (c) Pivot table reports are updated automatically. **F**
- (B) Attempt any **two** sub-questions from (d), (e),(f) in MySQL (2)
(Multiple Choice)
- (d) _____ is not an aggregate function.
1) Min() **2) Mod()** 3) Max() 4) Sum()
- (e) In Alter table statement to change the name of the column we use _____ clause.
1) Modify 2) Add **3) Change** 4) Rename
- (f) To select a database Salary the statement is _____.
1) Select Salary 2) Use Salary 3) Choose salary 4) Open Salary
- (C) Attempt any **six** sub-questions from (g),(h),(i),(j),(k),(l),(m),(n),(o) (6)
in Data Communications, Networking and Internet. (True/False).
- (g) A metropolitan area network can connect several LANs. **T**
- (h) Domain names are not used in an email address. **F**
- (i) The fiber optic cable uses a beam of light for transmitting data. **T**
- (j) The word 'blog' is a short form of the term building log. **F**
- (k) There is no way to handle collisions that occur in a bus topology. **F**
- (l) A bridge is used to segment a large network into smaller networks. **T**
- (m) Routing is the function performed by the Network layer. **T**
- (n) Spoofing allows one to have network for safe banking. **F**
- (o) Searching with the help of AND, OR, NOT is called as Boolean search. **T**
- (D) Attempt any **five** sub-questions from (p),(q),(r),(s),(t),(u),(v),(w) (5)
in Data Communications, Networking and Internet. (Multiple Choice)
- (p) The third layer of OSI model is _____.
1) Session 2) Presentation 3) Application 4) Transport
- (q) In MAN computers are connected to each other with the help of _____ cable.
1) Twisted Pair **2) Fiber Optic** 3) Coaxial 4) None of these
- (r) Which of the following is not a network topology?
1) Bus 2) Ring **3) Peer-to-Peer** 4) Star
- (s) A _____ transfers data packets (information) from one network to another.
1) Router 2) Switch 3) Hub 4) Modem

LNAME VARCHAR(20) 1 Mark
 ZONE VARCHAR(20) DEFAULT 'SOUTH' 2 Marks
 TAMT DECIMAL(10,2) NOT NULL; 2 Marks

(B) Answer *any one* sub-question from (c), (d) in MySQL (7)

- (c) Explain the following built-in functions in MySQL.
 1)MID () 2)CONCAT () 3)TRIM () 4)MONTH ()
 5)ABS () 6) POW () 7)DATE ()

GIVE 1 MARK EACH if definition or syntax or example is correct(Total 7)

- (d) There exists a table called BILL having the following columns Bill Number (BNO, integer), Product Name (PRNAME, character (15)), Quantity (Qty, integer), Cost of product (CPRODUCT, numeric).

Write MySQL statements for the following. (1 Mark each)

- i) Display the structure of the table BILL.

DESC BILL;

- ii) Increase the cost of all products by Rs.50.

UPDATE BILL SET CPRODUCT=CPRODUCT+50;

- iii) Change the name of the column QTY to QUANTITY.

ALTER TABLE BILL CHANGE QTY QUANTITY SMALLINT;

- iv) Add a new column Serial Number (SR.NO, integer) as first column to this table.

ALTER TABLE BILL ADD SR_NO SMALLINT FIRST;

- v) Delete the rows where bill number is 509

DELETE FROM BILL WHERE BNO=509;

- vi) Change the size of the column PRNAME to 20.

ALTER TABLE BILL MODIFY PRNAME CHAR(20);

- vii) Rename the table BILL as BILL1.

RENAME TABLE BILL TO BILL1; OR

ALTER TABLE BILL RENAME BILL1;

Q4. (A) Answer *any one* sub-question from (a), (b) in MySQL (8)

- (a) There exists a table STOCK containing columns item number (INO, numeric, Primary key), Item Name (INAME, Character), Unit price (UPR, Numeric) and quantity in stock (QTY, numeric).

Write MySQL queries for the following.

- i) Display item number, item name, quantity in stock from this table.

SELECT INO, INAME, QTY FROM STOCK; 1 Mark

- ii) Display item number, item name, quantity in stock whose quantity in stock is below the average quantity in stock.

SELECT INO, INAME, QTY FROM STOCK WHERE QTY <(SELECT AVG(QTY) FROM STOCK); 2 Marks

- iii) Display item number, item name whose unit price is equal to the highest unit price.

SELECT INO, INAME FROM STOCK WHERE UPR = (SELECT MAX(UPR) FROM STOCK); 2 Marks

- iv) Display item name, total quantity in stock grouped by item name.

SELECT INAME, SUM(QTY) FROM STOCK GROUP BY INAME; 2 Marks

- v) Display all the rows from this table in the descending order of item name.

SELECT * FROM STOCK ORDER BY INAME DESC; 1 Mark

- (b) There exists a table COMPANY containing the columns Employee Number (ENO, integer), employee name (ENAME, character),

Designation (DESG, Character), gender (GEN, Character). There exists another table DEPARTMENT containing columns employee number (ENO, integer), date of joining (DOJ, date), salary (SAL, numeric).

Write MySQL queries for the following.

i) Display employee number, employee name, designation and date of joining of those employees whose date of joining is after January 15, 2010 using both the tables.

```
SELECT COMPANY.ENO, ENAME, DESG, DOJ
FROM COMPANY, DEPARTMENT
WHERE COMPANY.ENO=DEPARTMENT.ENO AND DOJ>"2010-01-15";
```

2 Marks

ii) Display employee number, employee name, designation and salary for those employees whose gender is "M" using both the tables.

```
SELECT COMPANY.ENO, ENAME, DESG, SAL
FROM COMPANY, DEPARTMENT
WHERE COMPANY.ENO=DEPARTMENT.ENO AND GEN="M";
```

2 Marks

iii) Display all the rows from the table DEPARTMENT whose salary is equal to the highest salary.

```
SELECT * FROM DEPARTMENT
WHERE SAL = (SELECT MAX(SAL) FROM DEPARTMENT);
```

2 Marks

iv) Display employee number, name, designation, gender from the table COMPANY for employees whose designation is officer.

```
SELECT ENO, ENAME, DESG, GEN FROM COMPANY
WHERE DESG="OFFICER";
```

1 MARK

v) Display all the rows from the table COMPANY where the employee number is even.

```
SELECT * FROM COMPANY
WHERE MOD(ENO,2)=0;
```

1 MARK

Q4. (B) Answer *any one* sub-question from (c), (d) in MySQL (7)

(c) There exist a table called BMALL containing columns department id (D_ID, integer), name of department (DEPT, character), date of sale (DSALE, date) and sale amount (SAMT, numeric).

Write MySQL statements for the following:-

i) Display department name, minimum and maximum sale amount grouped as per department.

```
SELECT DEPT, MIN(SAMT), MAX(SAMT)
FROM BMALL
GROUP BY DEPT ;
```

2 Marks

ii) Display the department name, the total and average of the sale amount of each department.

```
SELECT DEPT, SUM(SAMT), AVG(SAMT)
FROM BMALL
GROUP BY DEPT;
```

2 Marks

iii) Display all the rows where the sale amount is above the average sale amount.

```
SELECT * FROM BMALL
WHERE SAMT >(SELECT AVG(SAMT) FROM BMALL);
```

2 Marks

iv) Display first eight rows from this table.

```
SELECT * FROM BMALL LIMIT 8;
```

1 Mark

(d) There exist a table called TYBCOM with columns roll number (RNO, integer), Student name (SNAME, character), division (DIVI, character) optional subject taken (OPT, character) and marks obtained (MK,

integer).

(1 Mark each)

Write MySQL queries for the following.

i) Display all the rows from this table where marks are above 90.

SELECT * FROM TYBCOM WHERE MK >90;

ii) Display all the rows from this table where DIVI is A or B

SELECT * FROM TYBCOM WHERE DIVI = 'A' OR DIVI = 'B';

iii) Display the name in lower case and optional subject from this table

SELECT LOWER(SNAME), OPT FROM TYBCOM;

iv) Display all the rows from this table where the second letter in student name is 'a'.

SELECT * FROM TYBCOM WHERE SNAME LIKE '_a%';

v) Display all the rows from this table.

SELECT * FROM TYBCOM;

vi) Display all the rows from this table in the descending order of marks obtained.

SELECT * FROM TYBCOM ORDER BY MK DESC;

vii) Display all the rows from this table where the optional subject taken is 'CSA'.

SELECT * FROM TYBCOM WHERE OPT="CSA";

- Q5. (A) Answer *any one* sub-question from (a) , (b) in MS-EXCEL (8)
(a) Consider the following worksheet showing the Sales of 5 persons.

	A	B	C	D	E	F
1	NAME	SALES	COMMISSION	DISCOUNT	NET	TAX
2	ASIF	45000				
3	REHANA	60000				
4	SALMAN	25000				
5	ANWAR	70000				
6	AAMIR	20000				

Write steps to find for all the salesmen

(i) Commission as 12% of the Sales or 6000 whichever is more in column C.

(ii) Discount as 10% of the Sales or 3000 whichever is less in column D.

(iii) Net as Sales – Commission – Discount in column E.

(iv) Tax as 8% of Net in column F.

COMMISSION

2 Marks

1. Select C2 and type =MAX(B2*12%, 6000) and press enter.

2. Select C2 and drag the fill handle to C6.

DISCOUNT

2 Marks

1. Select D2 and type =MIN(B2*10%, 3000) and press enter.

2. Select D2 and drag the fill handle to D6.

NET

2 Marks

1. Select E2 and type = B2-C2-D2 and press enter.

2. Select E2 and drag the fill handle to E6.

TAX

2 Marks

1. Select F2 and type = E2*8% and press enter.

2. Select F2 and drag the fill handle to F6.

- (b) The following data has been entered in a worksheet.

	A	B	C
1	NAME	CITY	SALARY
2	SEEMA	NAGPUR	55000

3	ADITYA	MUMBAI	85000
4	SEEMA	CHENNAI	58000
5	SUSHANT	NAGPUR	60000
6	PRIYA	CHENNAI	55000
7	SUSHANT	MUMBAI	70000
8	REENA	NAGPUR	65000

Write steps to do the following in MS-EXCEL :-

i) Arrange data in the alphabetic order of City and further in the ascending order of Salary.

ii) Arrange the data in the alphabetic order of Name and further in the descending order of Salary

Alphabetic order of City and ascending order of Salary. (2+2 marks)

1. Select the data A1:C8
2. From DATA TAB select SORT.
3. In Sort By select City and order select A to Z.
4. Click on Add Level.
5. In Then By select Salary and order select smallest to largest and click on ok.

Alphabetic Order of Name and Descending order of Salary.(2+2 marks)

1. Select the data A1:C8
2. From DATA TAB select SORT.
3. In Sort By select Name and order select A to Z.
4. Click on Add Level.
5. In Then By select Salary and order select largest to smallest and click on ok.

Q5. (B) Answer **any one** sub-question from (c) , (d) in MS-EXCEL (7)

(c) In the following worksheet the cost of machinery is entered in cell B2, number of years is entered in B3 and rate of depreciation is entered in cell B4

	A	B	C	D	E	F
1				YEARS	DEP	WDV
2	COST	600000		1		
3	YEARS	5		2		
4	RATE	10%		3		
5				4		
6				5		

Write the steps to obtain the year wise depreciation DEP and written down value WDV in columns E and F where depreciation is computed using reducing balance method.

1. Select E2 and type = $B\$2*B\4 and press enter.
2. Select F2 and type = $B\$2-E2$ and press enter.
3. Select E3 and type = $F2*B\$4$ and press enter.
4. Select F3 and type = $F2-E3$ and press enter.
5. Select E3 and F3 and drag the fill handle till F6

(d) Explain the following built in functions in MS-EXCEL

1. PMT()
2. ROUNDDOWN()
3. FV()
4. COUNT()
5. INT()
6. NPER()
7. MOD()

GIVE 1 MARK EACH if definition or syntax or example is correct(Total 7)