Q. P. Code: 25112

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)   More than one cell can be active at a time.
      (b)   Noncontiguous cells can be selected in a worksheet.
      (c)   Pivot table report is always sorted.

      (B)   Attempt any *two* sub-questions from (d), (e),(f) in MySQL   (2)
            (Multiple Choice)
      (d)   To display column names, type, default value etc. _____ is used.
            1) USE   2)DESCRIBE   3) SELECT   4) CREATE

      (e)   Two tables can be joined with the help of _____.

            1) ROLL BACK   2) COMBINE   3) INNER JOIN   4) GROUP BY

      (f)   The statement used to perform queries on table begins with _____.
            1) Query   2) Search   3) Selection   4) Select

      (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 network can be used to share hardware and software.
      (h)   Blogs are used to block Internet sites.
      (i)   In a client server based network individual computers or nodes share the
            processing and storage of data with the server.
      (j)   Coaxial cable uses light to transmit data.
      (k)   TCP/IP protocol has 7 layers.
      (l)   A hub sends signals to all devices on the network.
      (m)   More than one device can have the same IP address on the Internet.
      (n)   A central hub is required in bus topology.
      (o)   Network sniffers monitors data flowing over computer network links.

      (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)   LED is used as a source of light in ---------- transmission media.

            1) Twisted pair   2) Coaxial cable   3)Microwave   4) Fiber optic cable

      (q)   _____ is a meta search engine.
            1) Google   2) Dog pile   3) Alta Vista   4) Yahoo

      (r)   _____topology requires a central controller or hub.
            1) Bus   2) Ring   3) Star   4) All of these

      (s)   The protocols of FTP, SMTP & HTTP are contained in the _____ layer of TCP.
            1) Application   2) Transport   3) Internet   4) Modem

(t)   The rules for exchanging data between computers are called _____.
1) Interconnections   2) Laws   3) Modulation   4) Protocols

(u)   _____ protocol is used to send email.
1) POP   2) SMTP   3) HTTP   4) IP

(v)   Domain name _____ is used for commercial organizations.
1)   .in   2) .edu   3) .org   4) .com

(w)   The full form of ADSL is _____ Digital Subscriber Line.
1) Asymmetric   2) Asymptotic

3) Assembly   4) Applied

Q2. (A)   Answer *any one* sub-question from (a), (b) in Data Communications,   (8)
Networking and Internet.

(a)   Write short notes on (i) Hub (ii) Router.

(b)   What is computer network? Explain its advantages.

(B)   Answer *any one* sub-question from (c), (d) in Data Communications,   (7)
Networking and Internet.

(c)   Explain cybercrime & types of cybercrimes in brief.

(d)   Write short notes on (i) Search Engine (ii) Email.

Q3. (A)   Answer *any one* sub-question from (a) , (b) in MySQL   (8)

(a)   Write MySQL statement to create a table called STORE having the following
columns Item number (ITEMNO, unique integers should be incremented by 1
automatically), Item Name (INAME, character with variable width 20 columns),
Quantity in Balance (QTY_BAL, Numeric, positive) and Unit Price (UPRICE, 5
integers and 2 decimals).

(b)   Write MySQL statement to create a table called DONATION having the columns
Donors Identity Number (DNO, integer, Primary key), Donors Name (DNAME,
character with variable width 25 columns, should not be empty), Gender (GEN,
Boolean), Amount Donated (DAMT, 5 integers and 2 decimal places) and Date
of Donation (DDT, Date).

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

(c)   Explain the following built-in functions in MySQL.

1)UPPER( )   2)LENGTH( )   3) REVERSE( )   4) NOW( )

5) SQRT( )   6) ROUND( )   7) YEAR( )

(d)   There exists a table called STUDENT having the following columns   Roll Number (RNO, integer), Student Name (SNAME, character variable width 10), Class (CLASS, character width 15), Division (DIVI, character width 1) and Total Marks Obtained (TOTAL, integer).
Write MySQL statements for the following.
i) Display the structure of the table STUDENT.
ii) Insert one row of data in the table having Roll Number 104, Student Name 'MOHAN', Class 'F.Y.B.COM', Division 'G', Total marks obtained 540.
iii) Change the size of the column SNAME from Variable character (10) to variable character (15).
iv) Add a new column Gender (Gender, Character with variable width 1) before Class.
v) For Roll Number 10, change the Students Name to 'Dharmendra Shah'.
vi) Delete the column DIVI from this table.
vii) Rename the table STUDENT as STUDENT1.

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

(a)   There exists a table CUSTOMER having the columns Customer   Number (CNO, integer, Primary Key), Customer Name (CNAME, character), Amount due (Amount, 6 integer and 2 decimals) and date of transaction (DT, Date), City (CITY, character).
Write MySQL queries for the following.
i) Display customer number, amount due and city from this table.
ii) Display customer number, customer name and amount due where amount due is more than the average amount due.
iii) Display city, maximum and total amount due grouped by city.
iv) Display all the rows where amount due is equal to the lowest amount due.
v) Display the first five rows from this table.

(b)   There exists a table Employee containing columns Employee Number (ENO, integer, primary key), Employee Name (ENAME, character), Gender (GENDER, Boolean) and Designation (Desg, Character). There exists another table PAY containing the columns Employee Number (ENO, integer, primary key), Basic Pay (BPAY, 5 integer and 2 decimal places) and Date of Join (DOJ, Date).
Write MySQL queries for the following.
i) Display employee number, employee name, gender and basic pay of those employees having basic pay more than Rs.8000 using both the tables.
ii) Display employee number, employee name, designation, and date of joining for those employees whose name begins with 'S' using both the tables.
iii) Display employee number, basic pay form the table PAY for those employees whose basic pay is above the average basic pay.
iv) Display employee number, employee name and designation in the alphabetical order of employee name from the table employee.
v) Display employee number, employee name and designation from the table employee where employee number is less than 50.

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

(c) There exists a table RAILWAYS containing columns Station Number (SNO, integer), Station Name (SNAME, character), date (DT, date), Amount Collected (AMT, numeric). Write MySQL queries for the following.
i) Display the station number, maximum and minimum amount collected grouped as per station number.
ii) Display the station number and total amount collected grouped as per station number.
iii) Display all the rows where the amount collected is equal to the maximum amount collected.
iv) Display the station name, date and amount from this table.

(d) There exists a table ADMISSION containing columns Roll Number (SNO, integer), Students Name (NAME, character), Date of Birth (DOB, date), Class (CLASS, character), gender (GENDER, Character) and Fees Paid (FPAID, numeric).
Write MySQL queries for the following.
i) Display all the rows from this table where name contains 'H'.
ii) Display all the rows from this table where class is "T.Y.B.Com.".
iii) Display the student name in upper case and label it as 'Name of the Student' from this table.
iv) Display the number of female students from this table.
v) Display all the rows from this table in the descending order of roll numbers.
vi) Display all the rows from this table where roll number is divisible by 7.
vii) Display students name, date of birth and class from this table.

Q5. (A) Answer *any one* sub-question from (a), (b) in MS-EXCEL (8)

(a) Answer the following using MS-EXCEL
Given the worksheet.

	A	B	C	D
1	NAME	DOJ	DEPARTMENT	SALARY
2	MEHTA	1/12/2010	ACCOUNTS	75000
3	JAIN	3/4/2009	IT	50000
4	JAIN	10/10/2008	ACCOUNTS	40000
5	MEHTA	2/4/2011	HR	45000
6	JAIN	11/12/2009	IT	60000
7	PATEL	4/15/2010	ACCOUNTS	90000

Write steps to do the following:-
i) Arrange data in the alphabetic order of Department and further in the order of seniority.
ii) Arrange the data in the alphabetic order of NAME and further in the ascending order of SALARY.

(b)   For the following spreadsheet obtain the Subtotals of the Fees Course wise.

	A	B	C	D
1	**NAME**	**COURSE**	**MOBILE NO.**	**FEES**
2	VAISHALI	TALLY	9821023012	12000
3	ALPA	BEAUTY THERAPY	3456789215	8000
4	ARUNA	WEB DESIGNING	9845673212	15000
5	POOJA	WEB DESIGNING	8876543939	15000
6	RAHUL	BEAUTY THERAPY	8976765645	8000
7	SUNIL	TALLY	5456677678	12000
8	SANTOSH	TALLY	8798768754	12000

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

(c)   For the following spreadsheet

	A	B	C	D
1	**AMOUNT**	**SIMPLE INTEREST**	**COUMPOUND INTEREST**	**GAIN**
2	100000			
3	200000			
4	175000			
5	400000			
6	350000			
7	500000			
8	YEARS	5		
9	RATE	9%		

Write the steps to obtain

i) SIMPLE INTEREST in column B where simple interest= (P*N*R)/100

ii) COMPOUND INTEREST in column C where compound interest
$=P*(1+R/100)\ ^N - P$, where P is AMOUNT, R is RATE and N is YEARS.

iii) GAIN= COMPOUND INTEREST - SIMPLE INTEREST in column D.

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

1. PPMT( )   2. ROUNDUP( )   3. FV( )   4. MAX( )

5. CEILING( )   6. RATE( )   7. ABS( )

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