

- (s) The large collection of websites available on the internet is _____.
1) URL 2) WWW 3) Blog 4) None of these
- (t) Internet Explorer, Google Chrome and Firefox are _____.
1) Hardware 2) Browsers 3) Utility software 4) Internet tools
- (u) If a packet is missing or arrives out of order, _____ layer in OSI model handles the situation.
1) Transport 2) Session 3) Network 4) Physical
- (v) To match all the words in your search, the Boolean _____ operator should be used.
1) OR 2) AND 3) NOT 4) BOTH
- (w) The full form of ISDN is _____ Service Digital Network.
1) Indian 2) Important 3) Integrated 4) Initial

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

- (a) Write short notes on (i) Bus Topology (ii) Star Topology.
(b) Explain Data Communication & its various components.

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

- (c) Explain Domain Name System and IP Addresses.
(d) Write short notes on (i) Website (ii) Hacking.

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

- (a) Write MySQL statement to create a table called HOSPITAL having the following columns Patient Registration Number (PRN, integer, primary key), Patient Name (PNAME, character with variable width 20 columns), Doctor Name (DOCTOR, character with variable width 20 columns, should not be empty) and Charges (CHARGES, 7 integers and 2 decimals, positive).

- (b) Write MySQL statement to create a table called ACCOUNT having the columns Account Number (ANG, integer, primary key), Account holder Name (NAME, character with variable width 25 columns), Gender (GEN, Boolean), Type of Account (TYPE, character with variable width 25 columns, default value "SAVINGS") and Balance (BALANCE, very large integer).

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

- (c) Explain the following built-in functions in MySQL.
1) MOD() 2) RTRIM() 3) LOWER() 4) NOW()
5) RIGHT() 6) ROUND() 7) MONTH()

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- (d) There exists a table called ATTEND having the following columns Student Name (SNAME, character variable width 25), Class (CLASS, character width 15), Division (DIVISION, character width 1) and Number of Lectures Attended (LTOTAL, integer).

Write MySQL statements for the following.

- i) Insert one row of data in the table having Student Name 'RAMESH SIPPY', Class 'F.Y.B.Com.', Division 'A' and Number of Lectures Attended 80.
- ii) Add a new column Roll Number (RNO, integer) as first column to this table.
- iii) Increase the Number of Lectures Attended by all the students by 10.
- iv) Delete all the rows from the table where Number of Lectures Attended is less than 75.
- v) Change the Number of Lectures Attended of the student whose name is 'DIYA MIRZA' to 75.
- vi) Rename column SNAME to NAME.
- vii) Display the structure of the table ATTEND.

Q4. (A)

- (a) Answer *any one* sub-question from (a), (b) in MySQL
 There exists a table TAX having the columns Permanent Account Number (PAN, integer), Name (NAME, character), City (CITY, character), Taxable Income (INC, integer) and Income Tax (ITAX, integer).

Write MySQL queries for the following.

- i) Display Permanent Account Number, City and Income Tax from this table.
- ii) Display Permanent Account Number, Name and Taxable Income where Taxable Income is more than the average Taxable Income.
- iii) Display City, maximum and minimum Taxable Income grouped by City.
- iv) Display Permanent Account Number, Name and Taxable Income where the Income Tax is equal to the Highest Income Tax.
- v) Display all the rows from this table where name contains 'B'.

- (b) There exists a table BOOKS containing columns Accession Number (ASNUM, integer, primary key), Book Name (NAME, character), Author Name (AUTHOR, character) and Number of Pages (NUM, integer). There exists another table ISSUE containing the columns Student Number (SNUM, integer), Accession Number (ASNUM, integer, primary key) and Date of Issue (DOI, Date).

Write MySQL queries for the following.

- i) Display Book Name, Author Name and Date of Issue for books having more than 300 pages using both the tables.
- ii) Display Book Name, Student Number, Accession Number and Date of Issue for Books Issued before September 1, 2016 using both the tables.
- iii) Display Book Name, Author Name and Number of Pages from the table BOOKS for those books where the Number of Pages is equal to the average Number of Pages.
- iv) Display Book Name, Author Name and Accession Number in the alphabetical order of Book Name from the table BOOKS.
- v) Display Student Number, Accession Number and Date of Issue for all the rows from the table ISSUE where Student Number is between 21 and 30.

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Q4. (B)

(c)

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

There exists a table CUSTOMER containing columns Customer Number (CN, integer), Customer Name (CNAME, character), City (CITY, Character), Bill Number (BNO, numeric) and Bill Amount (BAMT, numeric). Write MySQL queries for the following.

- i) Display the City, maximum and minimum Bill Amount grouped as per City.
- ii) Display the City, total number of bills and total of Bill Amount grouped as per city.
- iii) Display all the rows where the Bill Amount is above the average Bill Amount.
- iv) Display all the rows from this table where the Customer Number is divisible by 4.

(d)

There exists a table STUDENT containing columns Roll Number (RNO, integer), Students Name (NAME, character), Class (CLASS, character) Marks (MARKS, Integer) and Date of Birth (DOB, Date). Write MySQL queries for the following.

- i) Display all the rows from this table where Marks are above 75.
- ii) Display all the rows from this table where Class is "T.Y.B.Com."
- iii) Display the Student Name labeled as 'Name of the Student' and Marks labeled as 'Marks of the Student' from this table.
- iv) Display the Roll Number, Student Name and Marks of students born before March 10, 1998 from this table.
- v) Display the Roll Number, Student Name and Marks of students where Student Name is 'ADITYA CHOPRA' from this table.
- vi) Display all the rows from this table in the descending order of Marks.
- vii) Display all the rows from this table where the first letter in the Student Name is 'T'.

Q5. (A)

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

(a) For the following spreadsheet obtain the Subtotals of the Sales year wise.

	A	B	C	D	E
1	NAME	YEAR	AGE	MOBILE NO.	SALES
2	SALIM	2010	30	9821023012	45000
3	ANANT	2011	27	3456789215	30000
4	RAHUL	2011	26	9845673212	55000
5	AANA	2010	29	8876543939	40000
6	RAJNI	2010	32	8976765645	20000
7	ASHA	2011	22	5456677678	25000

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- (b) For the following spreadsheet obtain the Pivot table showing total profit and average profit city wise in column F1.

	A	B	C	D
1	NAME	CITY	GENDER	PROFIT
2	SHAAN	NASIK	MALE	45000
3	ADITYA	MUMBAI	MALE	75000
4	SARITA	PUNE	FEMALE	50000
5	NIKKI	NASIK	FEMALE	40000
6	RIDHI	PUNE	FEMALE	55000
7	SUMIT	MUMBAI	MALE	70000

Q5. (B)

Answer *any one* sub-question from (c), (d) in MS-EXCEL
The following data has been entered in a worksheet.

(7)

	A	B	C	D	E	F
1	NAME	BASIC	HRA	DA	PF	NET PAY
2	ADIL	40000				
3	DARSHA	25000				
4	HAFIZA	60000				
5	KAJOL	75000				
6	SACHIN	34000				

Write the steps to obtain

- HRA as 45% of the Basic or 18,000 whichever is less in column C
- DA as 130% of the Basic or 20,000 whichever is more in column D.
- PF as 12% of BASIC in column E.
- NET PAY as $BASIC + DA + HRA - PF$ in column F.

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

- IPMT()
- ABS()
- PV()
- MIN()
- FLOOR()
- NPV()
- ROUNDDOWN()
