Total Marks: 75

Time: 2½ Hours

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 spreadsheet (2)
(True/False)

(a) Shift key is used to select a non-contiguous range.

(b) There are two types of cell references.

(c) A pivot table is a dynamic summary of the data.

(B) Attempt any *two* sub-questions from (d), (e),(f) in MySQL (2)
(Multiple Choice)

(d) To indicate that there should be 5 integers and 2 decimal positions we use ___.
i)DECIMAL(7,2) ii)DECIMAL(5,2) iii)DECIMAL(2,5) iv)DECIMAL(2,7)

(e) When one query is written within another query it is termed as a _____.
i) Mini query ii) Net query iii) Sub query iv) Tied query

(f) In MySQL, the operator LIKE "%R" finds match for a string _____.
i) Ending with R ii) Starting with R iii) Containing R iv) Containing R%

(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) The data transmission can take place without a protocol.

(h) In client server architecture, all resources are controlled by the server.

(i) In ring topology failure of one node will not affect the functioning of the network.

(j) Coaxial cable can be used over longer distances than twisted –pair cable.

(k) A bridge is a device using which we can segment a larger network into two smaller, more efficient networks.

(l) IP addresses are easier to remember.

(m) Face book is a search engine.

(n) Emails cannot be sent with attachments.

(o) Vishing uses VoIP to make a phishing attack.

(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) A ____network spans a number of cities and countries.
i) LAN ii) MAN iii)WAN iv) None of these

(q) The transmission medium that carries the message is referred to as the_____.
i) Protocol ii) gateway iii) Communication channel iv) Transport

(r) In _____topology all nodes are connected with a single cable.
i)Bus ii) Ring iii) Star iv) None of these

(s) POP stands for _____.
i) Post Office Protocol ii) Post Open Protocol
iii) Post Operate Protocol iv) None of these

(t) As the data packet moves from upper layers to lower layers, headers are ____.
i) Added ii) Rearranged iii) Deleted iv) Modified

(u) The activity of updating a blog is called _____.
i) Blogging ii) Blogger iii) Presenter iv) Hacking

183EFBCC1F1C520A6E219E91F3021752

(v) _____is a meta search engine.
i) Dogpile ii) Google iii) Alta Vista iv) Yahoo

(w) An IP address is made up of _____ bits.
i) 64 ii)32 iii)16 iv) 8

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

(a) Explain i) MAN ii) WAN

(b) Write a note on Bridge and Router.

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

(c) What is electronic mail? State advantages and importance of e-mail.

(d) Write short notes on sniffing and spoofing.

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

(a) Write MySQL statement to create a table called PAYROLL having the columns Employee Number (ENO, integer, Primary key), Employee Name (ENAME, character with variable width 25 columns, should not be empty), Date of Joining (DOJ, Date) and Salary (SALARY, width of 9 including 2 decimals, default value 18000).

(b) Write MySQL statement to create a table called ABFOUNDATION having columns Donor Identity Number (DNO, Integer, Primary key), Donor Name (DNAME, character with width 20 columns), Donor Email Address (DEmail, character with variable width 15 columns), Amount Donated (DAMT, integer, not negative), Date of Donation (DT, 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)LTRIM( ) 3) RIGHT( ) 4) DATE( )
5) ROUND( ) 6) POW( ) 7) MONTHNAME( )

(d) There exists a table FLIPKART having the columns Customer Number (CNO, integer), Customer Name (CNAME, character), Product Name (PNAME, character), Total Cost (TCOST, integer) and Date of Purchase (PURDT, date). Write MySQL statements for the following.

i) Display the structure of the table FLIPKART.
ii) Enter the following one row of data in this table.

CNO	CNAME	PNAME	TCOST	PURDT
1001	ADITYA	Realme2Pro	9000	2019-04-10

iii) Delete the row where Customer number is 950.
iv) Add a new column Discount (DISC, integer) at the end of the table FLIPKART
v) Change the Product Name to NOKIA for Customer name "Ramesh Shah".
vi) Change the size of the column CNAME to 25 columns.
vii) Rename the table FLIPKART as FLIPCART.

183EEBCC1F1C520A6E219E91F3021752

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

(a) There exists a table GOAIR having the columns Flight Number (FNO, integer), Destination Name (DNAME, character), PRN Number (PRN, integer), Fare Amount (FARE, numeric).
Write MySQL statements for the following.
i) Display Flight Number, Destination Name and Fare Amount from this table.
ii) Display Flight Number and Fare Amount for the records where Fare Amount is below the average Fare Amount.
iii) Display PRN Number, Destination Name for the records where Fare Amount is equal to the Highest Fare Amount.
iv) Display Destination Name, maximum Fare Amount and total Fare Amount from the table for each Destination Name.
v) Display all the rows from this table in the descending order of Fare Amount.

(b) There exists a table ABPCOLLEGE containing columns Roll Number (RNO, integer, primary key), Name (SNAME, character), Class (CLASS, character). There exists another table RESULT containing columns Roll Number (RNO, integer, primary key), Total marks (TOTAL, integer), Percentage (PERCENTAGE, integer) and Grade (GRADE, character).
Write MySQL statements for the following.
i) Display Name, Class, Total marks and Grade of a student with Total Marks more than 560 using both the tables.
ii) Display Name, Class and Grade of students getting "O" Grade using both the tables.
iii) Display Roll number and Total marks of students who have scored more than average Total Marks using table RESULT.
iv) Display Roll Number and Name of students whose Roll Number is divisible by 7 using table ABPCOLLEGE.
v) Display all the records from the table ABPCOLLEGE of the class "T.Y.B.COM."

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

(c) There exist a table called BATAS containing columns Employee Name (ENAME, character), Department Name (DEPT, character), Date of Joining (DOJ, date), Salary (SALARY, numeric) and Age (AGE, integer).
Write MySQL statements for the following:-
i) Display Department Name, total salary and average Salary for each Department.
ii) Display Date of Joining, minimum and maximum of the Salary as per date of Joining.
iii) Display all the rows where the Salary is equal to maximum Salary.
iv) Display Employee Name, Department Name and Salary where Age is more than 55.

(d) 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 all the rows from this table where the first letter in the Name is 'U'.
ii) Display all the rows from this table in the descending order of Taxable Income.
iii) Display the columns Permanent Account number, Name and Income Tax from this table.
iv) Display Permanent Account number, Name and Taxable Income from this table where Income Tax is more than 200000.
v) Display all the rows from this table.
vi) Display the total Income Tax collected from this table and label it as TOTAL TAX.
vii) Display Name, City and Taxable Income of the Employee whose name is "Kalpesh Joshi".

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

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

	A	B	C	D	E
1	F NAME	GENDER	DEPARTMENT	CITY	SALARY
2	NIHAL	M	EXPORT	PUNE	50000
3	GAYATRI	F	ADMIN	MUMBAI	80000
4	RAMYA	F	IT	NASIK	98000
5	SMITH	M	IT	NASIK	70000
6	ALAN	M	EXPORT	PUNE	35000
7	SRUSHTI	F	ADMIN	PUNE	74000
8	POOJA	F	EXPORT	MUMBAI	65000
9	SAIF	M	ADMIN	PUNE	63000
10	PRANAV	M	ADMIN	MUMBAI	78000

Write the steps to create a Pivot table showing the average salary and maximum salary department wise in column G.

(b) 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 (8)

	A	B	C	D	E	F
1				YEARS	DEP	WDV
2	COST	1000000		1		
3	YEARS	6		2		
4	RATE	12%		3		
5				4		
6				5		
7				6		

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

183EEBCC1F1C520A6E219E91F3021752

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

(c) The following data has been entered in a worksheet:

	A	B	C	D	E
1	NAME OF SALESMAN	SALES	COMMISSION	ADDITIONAL COMMISSION	TOTAL COMMISSION
2	Shantanu	58000			
3	Vijay	23800			
4	Bhavana	56000			
5	Karan	72300			
6	Shiv	64200			
7	Poornima	28000			

Write the steps to calculate

i) Commission at the rate of 15%.

ii) Additional Commission at the rate of 20% or Rs.5000 whichever is maximum.

iii) Total Commission = Commission +Additional Commission.

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

1. PV( ) 2. NPER( ) 3. PPMT( ) 4. SUM( )

5.MIN ( ) 6.ABS( ) 7. ROUNDDOWN( )

****