

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 (True/False) (2)
- (a) Today () function is to get the current system date.
  - (b) We cannot rename a worksheet in a workbook.
  - (c) Sorting can be done only in the ascending order.
- (B) Attempt any **two** sub-questions from (d), (e),(f) in MySQL (Multiple Choice) (2)
- (d) To make the changes in the data already entered in the table we use-----  
1) Alter Table 2) Use 3) Select 4) Update & Set
  - (e) To save the transaction we use-----  
1) Commit 2) Rollback  
3) Select 4) Cancel
  - (f) In MySQL, the operator LIKE "A%" finds match for a string-----  
1) Starting with A 2) ending with A 3) mixing with %  
4) Containing A.
- (C) Attempt any **six** sub-questions from (g),(h),(i),(j),(k),(l),(m),(n),(o) in Data Communications, Networking and Internet. (True/False). (6)
- (g) Only three topologies are used in networking.
  - (h) Co-axial cable is the fastest media for data transmission.
  - (i) A hub joins multiple computers together to form a single network segment.
  - (j) In a client server based network individual computers or nodes share the processing and storage of data with the server.
  - (k) Wireless connection uses radio and infrared signals.
  - (l) ISP stands for International Service Provider.
  - (m) There are 7 layers in OSI model.
  - (n) A blog is a digital dairy.
  - (o) Search engines are also known as web crawlers or spiders.
- (D) Attempt any **five** sub-questions from (p),(q),(r),(s),(t),(u),(v),(w) in Data Communications, Networking and Internet. (Multiple Choice) (5)
- (p) ----- is not fundamental characteristics of data communication.  
1) Timeliness 2) delivery 3) Message 4) Accuracy
  - (q) The base of hexadecimal system is -----.  
1) 2 2) 4 3) 8 4) 16
  - (r) LED is used a source of light in ----- transmission media.  
1) Twisted pair 2) co-axial cable 3) microwave 4) optical fibre

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- (s) It is easy to add or remove nodes in ----- topology.  
1) Bus                          2) Ring                          3) Star                          4) None of these
- (t) ----- is not a protocol.  
1) TCP    2) IP    3) FTP                          4) OSI
- (u) A hyperlink can appear as -----.  
1) Text only    2) image only    3) both image and text    4) none of these.
- (v) SMTP stands for -----.  
1) Single Mail Transfer Protocol    2) Special Mail Transfer Protocol  
3) Simple Mail Transfer Protocol    4) Selected Mail Transfer Protocol
- (w) Web site is a collection of -----.  
1) Web pages    2) pages    3) worksheets    4) documents
- Q2. (A) Answer **any one** sub-question from (a), (b) in Data Communications, Networking and Internet. (8)  
(a) Explain briefly the topologies commonly used in networking.  
(b) Explain any three transmission media.
- (B) Answer **any one** sub-question from (c), (d) in Data Communications, Networking and Internet. (7)  
(c) What are the different types of accounts available to connect to the internet?  
(d) Explain cybercrime in brief.
- Q3. (A) Answer **any one** sub-question from (a), (b) in MySQL (8)  
(a) Write MySQL statement to create a table called OFFICE having the columns Employee Number (ENO, integer, primary key), Employee Name (ENAME, character with variable width 20 columns, should not be empty), Gender (GEN, character with width 1, default value as "M") and Date of joining (DOJ, date).  
(b) Write MySQL statement to create a table called HOTEL having the columns Customer's Name (CNAME, character with variable width 20 columns, primary key), Customer's Address (CADDR, character with fixed width 50, not empty), Room Number (RNO, integer), Type of Room (TYPE, character of width 10, which contains default entry as "NON AC").
- (B) Answer **any one** sub-question from (c), (d) in MySQL (7)  
(c) Explain the following built-in functions in MySQL.  
1) LENGTH()    2) LTRIM()    3) MID()    4) TIME()  
5) DAY()    6) MONTHNAME()    7) ABS()

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- (d) There exists a table called COLLEGE having the following columns - Roll Number (RNO, integer), Students Name (SNAME, character width 15), Fees Paid (FEES, having 6 integers and 2 decimal places) and Date of Admission(DA, date). Write MySQL statements for the following.

- Display the structure of the table COLLEGE.
- Add a new column Conformation (CO, Boolean).
- Increase the fees of all students by 500.
- For roll number 75, change the name of the student to 'Rajesh Pal'.
- Change the size of the column FEES to 5 integers and 2 decimals.
- Rename the column DA to DOB.
- Delete the table COLLEGE.

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), Customer's Name (CNAME, character), Bill NUMBER (BNO, integer, primary key), Bill Amount (BAMT, integer) and Date of Purchase (PURDT, date). Write MySQL statements for the following.

- Display Customer Number, Customer's name and Bill Amount from this table.
- Display Customer Number, Customer's Name and Bill Amount where Bill Amount is more than the average Bill Amount.
- Display Date of Purchase, maximum and minimum Bill Amount grouped by Date of Purchase.
- Display Customer Number, Customer's Name and Bill Amount where the Bill Amount is equal to the Highest Bill Amount.
- Display all the rows from this table where Customer's name contains 'A'.

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

- (c) There exists a table CASH containing columns Bank Account Number (BAN, integer), Name of the depositor (DNAME, character), City (CITY, Character), Amount deposited (DEP, numeric) and Date of Deposit (DEPDT, date). Write MySQL queries for the following.

- Display the City, maximum amounts deposited and the average amounts deposited grouped as per City.
- Display the City, total number of amounts deposited and minimum amounts deposited grouped as per city.
- Display all the rows where the Amount deposited is above the average Amount deposited.
- Display all the rows from this table where the Bank account Number is divisible by 5.

- (d) There exists a table NCAR containing columns Registration Number (REGNO, character), Model of the car (MAKE, character), Date of Purchase (DOP, date) and Value of the car (Value, numeric).  
 Write MySQL queries for the following.
- Display all the rows from this table where Value is above 750000.
  - Display all the rows from this table where Make is "HONDA".
  - Display the Model of the car labeled as 'Make of the Car' and Value of the car labeled as 'Price of the Car' from this table.
  - Display the Registration Number, Model of the car and Value of the car purchased before March 11, 2005 from this table.
  - Display the Registration Number, Model of the car and Value of the car where Model of the car 'MARUTI' from this table.
  - Display all the rows from this table in the descending order of Value.
  - Display all the rows from this table where the first letter in the Model of the car is 'F'.

Q5. (A)

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

(8)

- (a) For the following spreadsheet obtain the Subtotals of the Salary Designation wise.

	A	B	C	D	E
1	NAME	DEPARTMENT	AGE	DESIGNATION	SALARY
2	SALIM	HR	30	MANAGER	45000
3	ANANT	ACCOUNTS	23	CLERK	20000
4	RAHUL	HR	21	CLERK	25000
5	AANA	ACCOUNTS	29	MANAGER	50000
6	RAJNI	ACCOUNTS	24	CLERK	20000
7	ASHA	IT	30	MANAGER	35000

- (b) For the following worksheet

	A	B	C	D
1	YEAR	SIMPLE INTEREST	COUMPOUND INTEREST	DIFFERENCE
2	1			
3	2			
4	3			
5	4			
6	5			
7	6			
8	AMOUNT	500000		
9	RATE	9%		

Write the steps in MS-EXCEL to obtain

- i) SIMPLE INTEREST in column B where simple interest=  $P \times N \times R / 100$

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- 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) DIFFERENCE = COMPOUND INTEREST - SIMPLE INTEREST in column D.

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

(c) 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 6% of the Sales or 5000 whichever is more in column C.
- (ii) Discount as 12% of the Sales or 4000 whichever is less in column D.
- (iii) Net as Sales- Commission – Discount in column E.
- (iv) Tax as 10% of Net in column F.

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

- |            |           |            |          |
|------------|-----------|------------|----------|
| 1. IPMT()  | 2. INT()  | 3. RATE()  | 4. MAX() |
| 5. FLOOR() | 6. NPER() | 7. ROUND() |          |