

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)
- (a) A workbook can contain maximum three worksheets.
(b) To calculate the monthly payment to be made to pay off a loan, we use PMT() function.
(c) When data is sorted, some rows may be hidden.
- (B)** Attempt any **two** sub-questions from (d), (e),(f) in MySQL (2)
- (d) When one query is written within another query it is termed as a _____.
1) Mini query 2) Net query 3) Sub query 4) Tied query
- (e) Command used to insert a record in the table HOTEL is _____.
1) Update and Set 2) Alter 3) Insert into 4) Select
- (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) Protocol is not necessary for data communication.
(h) A MAN can connect various LANs.
(i) Switch selects the best path to send message, based on the destination address and origin.
(j) Fiber optic cable uses a beam of light for transmitting data.
(k) Application layer contains protocols that allow the users to access the networks.
(l) HTML is used to create web pages.
(m) A browser is word processing software.
(n) Google .com is a search engine.
(o) Red hat is a type of hackers.
- (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) A network where individual computers share the processing and storage of data with the sources is a _____.
i) Peer-to-peer network ii) client server based network
iii) MTTP network iv) none of these.

- (q) In _____ topology all devices are connected to central hub.
 1) Bus 2) Star 3) Ring 4) None of These
- (r) _____ is a wireless media.
 1) Microwave 2) Fiber optic 3) Coaxial 4) UTP cable
- (s) OSI model has _____ layers.
 1) 8 2) 7 3) 6 4) 5
- (t) Encryption and decryption are responsibilities of _____ layer.
 1) Application Layer 2) Presentation Layer
 3) Network Layer 4) Physical Layer
- (u) Full form of URL is Uniform Resource _____.
 1) Location 2) Locator 3) Local 4) Live
- (v) _____ is a text-based browser.
 1) FireFox 2) Opera 3) Lynx 4) Internet Explorer
- (w) A grey hat hacker is a combination of _____ and a white hat hacker
 1) Elite Hacker 2) Blue Hat 3) Yellow Hat 4) Black Hat

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

- (a) Explain MAN and WAN networks.
 (b) What are the features of Client Server and Peer-to-Peer Network

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

- (c) Explain Domain Name System and IP address
 (d) Write short note on i) Hotspot ii) Spoofing

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

- (a) Write MySQL statement to create a table called HOTEL having the following columns Registration Number (RNO, integer, Primary Key), Room Type (RTYPE, character with variable width 15 columns, default value "NORMAL"), Check in Date (SDATE, Date) and Tariff (TARIFF, width 8 with 2 decimals, should not be negative).

- (b) Write MySQL statement to create a table called LIBRARY containing columns Accession Number (ASNUM, integer, should be increased by 1 automatically), Book Name (NAME, character with variable width 25 columns, should not be empty), Author Name (AUTHOR, character with width 20 columns), Price of the Book (NUM, 7 integer and 2 decimals) and Date of Purchase (PURDT, Date).

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

- (c) Explain the following built-in functions in MySQL.
 1) LEFT() 2) TRIM() 3) MONTH() 4) LENGTH()
 5) MOD() 6) POW() 7) NOW()
- (d) There exist a table RTRAVELS containing columns Travellers Number (TNO, integer), Name (TNAME, character), Destination City (CITY, Character 10), Date of Travel (DOT, date) and Fare (FARE, integer). Write MySQL statements for the following.
 i) Display the structure of the table RTRAVELS.
 ii) Enter the following one row of data in this table.

TNO	TNAME	CITY	DOT	FARE
101	AKASH	HYDERABAD	2018-12-24	8000

- iii) Add a new column Age (AGE, integer) at the beginning of the table RTRAVELS.
 iv) Delete the rows where destination city is PUNE.
 v) Change the Date of travel of traveller with name "SAMEER" to May 10, 2019.
 vi) Change the size of the column TName to 25 columns.
 vii) Delete the table RTRAVELS.

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

- (a) There exists a table INVENTORY having the columns Warehouse Name (WNAME, character), Item Number (INO, integer, primary key), Item Name (INAME, character), Unit Price (UPRICE, integer), Quantity (Quantity, integer). Write MySQL statements for the following.
 i) Display Warehouse Name, Item Name and Quantity from this table.
 ii) Display Warehouse Name, Item Name and unit Price of those Items whose Unit Price is more than or equal to the average Unit Price.
 iii) Display Warehouse Name, maximum and total Quantity grouped by Warehouse Name.
 iv) Display Warehouse Name, Item Name and Quantity of those Items whose Quantity is equal to maximum Quantity.
 v) Display all the rows from this table in the descending order of Unit Price.

- (b) There exists a table SALES containing columns Salesman Number (SNO, integer, primary key), Salesman's Name (SNAME, character), Gender (GENDER, character) and Sales Amount (SAMT, numeric). There exists another table TARGET containing the columns Salesman Number (SNO, integer, primary key), Area of Sale (AREA, character) and Target Sale (TSALE, numeric). Write MySQL statements for the following.
 i) Display Salesman's Name, Gender, Sales Amount and Target Sale for Salesmen having Sales Amount more than 250000 using both the tables.

- ii) Display Salesman's Name, Sales Amount and Target Sale for all the salesmen having Sales Amount between 50000 and 150000 using both the tables.
- iii) Display Salesman Number, Salesman's Name and Sales Amount from the table SALES for those salesmen having Sales Amount below the average Sales Amount.
- iv) Display Salesman Number, Salesman's Name and Sales Amount from the table SALES for those salesmen having Sales Amount equal to maximum Sales Amount.

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

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

- i) Display the City, Branch, maximum amounts deposited and the average amounts deposited grouped as per Branch.
- ii) Display the City, Branch, total number of amounts deposited and minimum amounts deposited grouped as per Branch.
- iii) Display all the rows where the Amount deposited is above the average Amount deposited.
- iv) Display all the rows from this table where the amount Deposited is more than 50000.

(d) There exist a table called BOOKS with columns Book Number (BNO, integer), Book Name (BNAME, character), Author Name (AUTHOR, character), Number of Copies (NCOPY, integer), Price of Book (Price, integer) and Date of Purchase (PDATE, date).
Write MySQL queries for the following.

- i) Display all the rows from this table in the alphabetical order of Author Name.
- ii) Display Book Name, Author Name and Number of Copies from this table where Price of Book is more than 1000.
- iii) Display Book Name, Price of the Book and "Scrap Value" which is 10 % of the Price of the Book from this table
- iv) Display all the rows from this table where the second letter in Book Name is 'a'.
- v) Display all the rows from this table.
- vi) Display Book number, Author Name and Number of Copies from this table where book Name is "Computer Systems and Applications".
- vii) Display all the rows from this table where the Author Name is "SHARMA".

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	F	G
	NAME	BASIC	HRA	DA	GROSS	TAX	NET
1	RAM	25000					
2	RAHIM	10000					
3	ARJUN	18000					
4	ANTHONY	12000					
5	VARUN	30000					

Write the steps to obtain

- i) HRA as 60% of the Basic or 15,000 whichever is less in column C
- ii) DA as 110% of the Basic rounded to the nearest integer in column D.
- iii) GROSS as BASIC+DA+HRA in column E.
- iv) TAX as 33.3% of GROSS in column F.
- v) NET=GROSS-TAX in column G.

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

	A	B	C	D	E	F
1	PRODUCT NAME	PRICE PER UNIT	UNITS SOLD	TOTAL AMOUNT	DISCOUNT	NET AMOUNT
2	A	16000	10			
3	B	28000	2			
4	C	4000	15			
5	D	850	14			
6	E	1250	8			
7						
8	RATE OF DISCOUNT	25%				

Write steps to obtain

- i) TOTAL AMOUNT = UNITS SOLD x PRICE PER UNIT
- ii) DISCOUNT = TOTAL AMOUNT x 25%
- iii) NET AMOUNT = TOTAL AMOUNT- DISCOUNT
- iv) Find sum of NET AMOUNT in cell F7

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

(c) For the following spreadsheet write steps to obtain the Subtotals of the fees paid class wise

	A	B	C
1	ROLL NO	NAME	FEES PAID
2	34	DARSHIT	4500
3	78	AMAN	3500
4	45	MALHAR	4000
5	120	KARISHMA	4500
6	153	SRIDEVI	4000
7	248	JOHN	3500
8	891	AKBAR	4500

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

- 1. IPMT()
- 2. NPER()
- 3. ABS()
- 4. ROUND()
- 5. FLOOR()
- 6. MIN()
- 7. AVERAGE()