

Time: 2 Hours

Total Marks: 60

Note: 1) All questions carry equal marks and are compulsory.

2) Figures to the right indicate maximum marks for a question.

- Q1 (A)** Answer **any one** sub-question from (a), (b) in Data Communications, Networking and Internet. **(8)**
- Explain LAN and WAN networks.
 - Explain switch and Bridge.
- (B)** Answer **any one** sub-question from (c), (d) in Data Communications, Networking and Internet. **(7)**
- Explain the difference between IP Address and a Domain Name System.
 - Explain the following
i) Browser ii) Blog
- Q2 (A)** Answer **any two** sub-question from (a), (b), (c) in MySQL **(5)**
- Write MySQL statement to create a table called DONATION having the columns Donor Identity Number (DNO, integer, primary key), Donor Name (DNAME, character with variable width 20 columns), Amount Donated (DAMT, integer) and Date of Donation (DT, date). **(5)**
 - There exists a table called DEPOSIT containing the columns Deposit Number (DN, integer, primary key), Deposit Code (DCODE, character with width 10 columns), Amount (AMT, integer) and Date of Registration (DRT, date). **(5)**
Write MySQL statements for the following.
i) Display the structure of the table DEPOSIT.
ii) Enter the following one row of data in this table.

DN	DCODE	AMOUNT	DRT
1002	SAVINGS	50000	2017-05-15

iii) Increase amount by 25000 where deposit code is "SAVINGS".
iv) Change the size of the Column DCODE to 30 columns.
v) Delete the column DRT.
 - There exists a table called STUDENT containing columns Roll Number (RNO, integer, primary key), Student Name (SNAME, character) and Date of Birth (DOB, date). There exists another table EXAM containing the columns Roll Number (RNO, integer), Class (CLASS, character) and Total Marks (TOT, integer). **(5)**
Write MySQL queries for the following.
i) Display Roll Number, Student Name and Total Marks of all the students using both the tables.
ii) Display Student Name, Date of Birth and Total Marks of all the students whose total marks are 400 or more using both the tables.
iii) Display all the rows from the table STUDENT.

- Q2 (B)** Answer **any one** sub-question from (d), (e) in MS-EXCEL
- (d) Explain the following built in functions in MS-EXCEL (5)
1. FV()
 2. RATE()
 3. ABS()
 4. ROUND()
 5. FLOOR()

- (e) The following data has been entered in a worksheet. (5)

	A	B	C	D	E	F	G
1	NAME	ACC	COM	ECO	MATHS	TOTAL	AVG
2	PANKAJ	78	66	80	82		
3	VIGNESH	98	80	85	96		
4	SWATI	88	90	76	60		
5	HAMEED	56	65	50	52		
6	JOY	76	58	40	64		
7						MAX	

Write steps to

- i) Find total and average marks of all students in column F and G respectively.
- ii) Find the maximum average marks obtained in cell G7

- Q3 (A)** Answer **any two** sub-questions from (a), (b), (c) in MySQL. (5)

- (a) Explain the following built-in functions in MySQL. (5)
- 1) LOWER()
 - 2) NOW()
 - 3) LEFT()
 - 4) MOD()
 - 5) MONTH()

- (b) 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). (5)

Write MySQL queries for the following.

- i) Display all the rows from this table where Value of the Car is above 1000000.
- ii) 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.
- iii) Display the Registration Number, Model of the Car and Value of the Car purchased after March 22, 2015 from this table.
- iv) Display all the rows from this table in the descending order of Value.
- v) Display all the rows from this table where the second letter in the Model of the Car is 'O'.

- (c) There exists a table RAIL having the columns Station Number (SNO, integer), Station Name (SNAME, character), Amount Collected (AMT, numeric). (5)

Write MySQL statements for the following.

- i) Display Station Number and Amount Collected from this table.
- ii) Display Station Number and Amount collected from this table where Amount Collected is equal to the Highest Amount Collected.
- iii) Display Station Name, maximum Amount and total Amount Collected from stations grouped by Station Names.

Q3 (B)

Answer **any one** sub-question from (d), (e) in MS-EXCEL

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

(5)

	A	B	C
1	Name	Department	Salary
2	Harish	Sales	26500
3	Vishwas	Production	19500
4	Naren	Sales	21000
5	Kushi	Accounts	13000
6	Bhavya	Production	27000
7	Tapasi	Accounts	18500

Based on these values, write steps to Arrange the data in the descending order of Name and further in the ascending order of Department.

(e) In the following worksheet the cost of machinery is entered in cell A4 and its estimated life in years is entered in cell A8.

(5)

	A	B	C	D
		YEAR	DEPRECIATION	WDV
1		1		
2		2		
3		3		
4	100000	4		
5		5		
6		6		
7				
8	6			

Write the steps to obtain the year wise depreciation and WDV in columns C and D where depreciation is computed using reducing balance method.

Q4 (A)

Attempt any **two** sub-questions from (a), (b), (c) in MS-EXCEL

(2)

- (a) The symbols / and - are called as date separators.
- (b) A formula may start with any symbol.
- (c) If a cell displays ##### it means that it contains invalid data.

(B)

Attempt any **four** sub-questions from (d), (e), (f), (g), (h), (i) in MySQL

(4)

- (d) To indicate that the values in the column are positive we use _____.
1) Not Null 2) Unsigned 3) No Signed 4) Not Signed
- (e) Insert command is used with _____ clause.
1) In 2) Into 3) To 4) From
- (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

- (g) In the alter table statement to change the name of the column, we use _____ Clause.
1) Modify 2) Change 3) Add 4) Drop
- (h) When one query is written within another query it is termed as a _____.
1) Sub query 2) Net query 3) master query 4) None of these
- (i) To arrange the data in alphabetical order _____ is used.
1) Sort by 2) Group by 3) Order by 4) Limit
- (C) Attempt any **four** sub-questions from (j), (k),(l),(m),(n),(o) in Data Communications, Networking and Internet. (True/False). **(4)**
- (j) In a data communication process, the sending device can only be a computer.
- (k) LAN network is larger than a MAN network.
- (l) In client-server architecture, all resources are controlled by the server.
- (m) Fiber optic cable uses light to transmit data.
- (n) HTML is used to create web pages.
- (o) A blog is a digital dairy.
- (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 also called Data Transmission.
1) Data distribution 2) Data representation
3) Data Communication 4) None of these
- (q) The exchange of information between computers is governed by a set of rules called _____.
1) Media 2) Protocol 3) Sender 4) Channel
- (r) In _____ topology all the nodes are connected with a single cable.
1) BUS 2) Ring 3) star 4) All of these
- (s) _____ is the main function of the Network layer
1) Data Compression 2) Dialog control
3) segmentation and reassembly 4) routing
- (t) Each web page has a unique address called a _____.
1) Protocol 2) URL 3) Domain 4) blog
- (u) A hyperlink can appear as _____.
1) Text only 2) image only 3) both image and text 4) none of these.
- (v) Common protocol of the internet is _____.
1)HTTP 2) FTP 3) SMTP 4) TCP/IP
- (w) The _____ symbol must appear in an email address
1) '!' 2) \$ 3) @ 4) #