

(Time: 2 ½ 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.

- Q.1 A Attempt any two sub-questions from (a), (b),(c) in MS-EXCEL(True/False) 02**
(a) A workbook can contain worksheets and chart sheets.
(b) The symbol: is called as the time separator.
(c) A worksheet name cannot include spaces.
- B Attempt any two sub-questions from (d), (e),(f) in MySQL(Multiple Choice) 02**
(d) The Query SELECT * FROM PAY; will display _____ columns from the table PAY.
a) Middle Two b) All c) Last Two d) First Two
(e) To make changes in the data already entered in the table we use _____.
a) Alter Table b) Update and Set c) Select d) create
(f) To view the names of the databases in MySQL we use _____.
a) Show Tables b) View Databases c) Show Database d) Show Databases
- C Attempt any six sub-questions from (g),(h),(i),(j),(k),(l),(m),(n),(o) in Data Communications, Networking and Internet. (True/False) 06**
(g) Unicode system of character representation is used only for English language characters.
(h) A group of 4 bits is called a byte.
(i) The process of data communication is controlled by a set of rules called 'protocol'.
(j) HTML is used to create Web pages.
(k) In bus topology, only one device is allowed to transmit at a time.
(l) WAN operates on speeds of 100 Mbps.
(m) Simple Mail Transfer Protocol is used to retrieve e-mail from the host computer.
(n) A web page can have only text and images.
(o) Email works on the "store-and-forward" principle.
- D Attempt any five sub-questions from (p),(q),(r),(s),(t),(u),(v),(w) in Data Communications, Networking and Internet. (Multiple Choice) 05**
(p) The transmission medium that carries the message is referred to as the _____.
a) protocol b) gateway c) communication channel d) receiver
(q) What is the full form of ASCII?
a) American Standard Code for International Interchange
b) American Standard Code for Interchange of Information
c) American Standard Code for Information Interchange
d) American Software Code for Information Interchange
(r) The base of the hexadecimal system is _____.
a) 2 b) 6 c) 10 d) 16
(s) Which of these is / are essential for a computer network?
a) A resource b) Medium c) Protocol d) All the above
(t) The three important goals of data communications are delivery at correct destination, accurate delivery and _____.
a) late delivery b)timely delivery
c) next day delivery d) on the spot delivery
(u) The network spanning a number of cities or countries or continents form _____.
a) LAN b) MAN c) WAN d) None of these

- (v) Benefits of email are :
 a) cost b) speed c) record keeping d) All the above
- (w) _____ allows user to search simultaneously on several search engines.
 a) Server b) Boolean Search c) Meta search engine d) None of these

Q.2 A **Answer any one sub-question from (a),(b) in Data Communications, Networking and Internet** **08**

- (a) Explain ring and bus topology.
 (b) What is Data Communication? Explain its components.

B **Answer any one sub-question from (c),(d) in Data Communications, Networking and Internet** **07**

- (c) Explain different types of networks.
 (d) Explain Blog and Search engines.

Q.3 A **Answer any one sub-question from (a) , (b) in MySQL** **08**

- (a) Write a MySQL statement to create a table called teacher_records with the following fields: Teacher ID (TeacherID, Integer, Primary Key, Not Null), Name (TeacherName, character with variable width of 50), Subject (Subject, character with variable width of 30), Salary (Salary, Integer), and Joining Date (JoinDate, Date).
- (b) Write a MySQL statement to create a table called order_info having the columns: Order Number (OrderNo, Integer, Primary Key, Not Null), Customer ID (CustID, Integer), Product Name (ProductName, character with variable width of 40), Quantity Ordered (QtyOrdered, Integer), Unit Price (UnitPrice, Integer), and Order Date (OrderDate, Date).

Q.3 B **Answer any one sub-question from (c) , (d) in MySQL** **07**

- (c) There exists a table called Library containing the columns Book Number (Bno, integer, Primary Key), Book Name (Bname, character(25)), Author (Author character(20)), Price (Price Decimal(7,2)), and Publisher (Publisher character(25)).

Write MySQL statements for the following:

- i) Display the structure of the table Library.
 ii) Display all records of the Library table.
 iii) Add a new column Quantity (Qty integer) in the table Library.
 iv) Delete the record where Book Number = 105.
 v) Change the Price of the book with Book Number 108 to 450.
- (d) Write a MySQL text functions with examples.

Q.4 A **Answer any one sub-question from (a) , (b) in MySQL** **08**

- (a) There exists Table name : Employee details(EMP_DETAILS)column s in the table: Employee no.(Primary key)(emp_no), first name (fname), Surname (Surname), middle name (Mname), age(Age), date of birth(DOB), gender(Gender), name of the department(Dept), designation(Desi), and salary(Sal).

Write MySQL statements for the following.

- i) To display Employee no. , first name, surname, last name and salary. Use the heading as Emp. No., Name and Salary. Use concat to display name as one entity combining first name, surname, last name.
 ii) To display Employee no., first name, surname, last name whose first name begins with the letter S.

Q.5 A Attempt any ONE sub-question from a), b) in MS Excel

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

A	B	C	D	E
1	Salesperson_Name	Sales_Amount	Commission	Bonus
2	Ramesh	60,000		
3	Naresh	45,000		
4	Dinesh	85,000		
5	Mahesh	1,20,000		
6	Ketan	95,000		
7				

Write the steps to find:

1. Commission in column C at the rate of 12% of Sales Amount.
2. Bonus in column D as 15% of Commission or 700 whichever is minimum.
3. Total Earnings in column E as Sales_Amount + Commission + Bonus.

b) Consider the following worksheet showing the cost of machinery. Find the depreciation and depreciated value for each year using the Straight Line Method.

A	B	C	D	E	F
1				Year	Depreciation
2	Cost of Machine	600,000		1	
3	Dep. Rate	10%		2	
4				3	
5				4	
6				5	

B Attempt any ONE sub-question from c), d) in MS Excel

c) Answer the following using spreadsheet giving the marks scored by 5 students in 4 subjects.

A	B	C	D	E	F	G	H
1	Student	ENG	MATH	SCI	SST	TOTAL	AVG
2	Amit	75	65	58	70		
3	Sumit	62	85	60	74		
4	Ramesh	55	78	72	65		
5	Kunal	80	62	68	59		
6	Anil	70	52	65	68		
7							
8	HIGHEST MARKS						
9	LOWEST MARKS						

Write the steps to:

1. Calculate the Total and Average marks in columns G and H.
2. Calculate Subject-wise Highest and Lowest marks in rows 8 and 9

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

- 1) MOD()
- 2) MAX()
- 3) ABS()
- 4) ROUNDUP()
- 5) FLOOR()
- 6) IPMT()
- 7) RATE()

- iii) To display Employee no., first name, surname; last name and age in the order of Surname.
- iv) To display Employee no., first name, surname, last name and date of birth of those who are born in the month of June in the chronological order of date of birth.
- (b) There exist a table book containing the columns account number(ACNNo), book name(Bname), Number of copies(NOC) ,Value of the book(B_rate) and date of Publication(Dof_P).
Write the my SQL statement for the following
 - i) Display all the rows from the following table book.
 - ii) Display all the book details in alphabetical orders of book name
 - iii) Display the account number, book name and date of Publication from the table.
 - iv) Display Minimum number of books, Maximum number of books, Average of book as per book name.

Q.4 B

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

07

- (c) There exists a table Flipcart having the columns Purchaser's Number (PNO, integer), Purchaser's Name (PNAME, character), Receipt Number (RNO, integer, primary key), Total Cost (TCOST, integer) and Date of Purchase (PURDT, date). Write MySQL statements for the following.
 - i) Display Purchaser's name, Receipt Number and Total Cost from this table where Date of Purchase is January 1, 2018.
 - ii) Display Purchaser's Name and Total Cost where Total Cost is equal to the maximum Total Cost.
 - iii) Display Date of Purchase, maximum and minimum Total Cost grouped by Date of Purchase.
 - iv) Display Purchaser's Name, Total Cost and "Discount" as 15% of Total Cost.
- (d) There exists a table Eclass containing columns Roll Number (RNO, integer, primary key), Name (SNAME, character), Age (AGE, integer), Fees (FEES, decimal (8, 2)).
There exists another table PER containing columns Roll Number (RNO, integer, primary key), Total marks (TOTAL, integer). Write MySQL statements for the following.
 - i) Display Name, Age and Total marks of a student with Roll Number 200 using both the tables.
 - ii) Display Name, Age and Total marks of students getting Total Marks more than or equal to 600 using both the tables.
 - iii) Display Roll number and Total marks of students who have scored more than average Total Marks using table PER.
 - iv) Display Name and Fees of students who pay maximum Fees using table Eclass.