

Term2(XII)
INFORMATICS PRACTICES (Code : 065)

Maximum Marks: 35

Time: 2Hours

General Instructions

- The question paper is divided into 3 sections – A, B and C
- Section A, consists of 7 questions (1-7). Each question carries 2 marks.
- Section B, consists of 3 questions (8-10). Each question carries 3 marks.
- Section C, consists of 3 questions(11-13). Each question carries 4 marks.
- Internal choices have been given for question numbers – 2 , 3, 8 and 12.

Section-A

Each question carries 2 marks

1. Choose the correct answer- 2
i) A website is a collection of _____
a. Web Servers b. Web pages c. Browsers d. Hyperlinks
ii) The process of getting web pages, images and files from a web server to local computer is called
a. FTP b. Uploading c. Downloading d. Remote access
2. Ramanpreet has to work on his science project which deals with electromagnetic waves. A lot of research work is required by him for the same. He uses Google Chrome to search for the relevant matter. 1
i. Google chrome is an example of a
a. Website b. Web browser c. Web Page d. Web Page
ii. He finally locates some useful information and clicks on the link provided to access the website. The link is actually known as a _____. 1
a. Domain name b. Web Page c. URL d. IP address
- Rupa, a beginner in IT field has just started learning web technologies. Help her in understanding the difference between website and web pages with the help of a suitable general example of each.
3. Predict the output of the following queries: 2
i. Select power(-3,3);
ii. Select mod(49,4);
OR
- Briefly explain the purpose of the following SQL functions:
i. left()
ii. now()
4. Rohana has just created a website for her company and now need to host it. Briefly discuss the role of a web server in hosting a website. 2
5. Help Rahul in predicting the output of the following queries: 2
i) select round(458.7722,3);
ii) select round(458.7722,-3);
6. Kumar, a database administrator, has grouped records of a table with the help of group by clause. He has also seen the records either in ascending or in descending order with the help of order by clause. Write the differences between group by clause and order by clause. 2
7. Mrs. Dutta a class teacher in “South Point School ” has created the following table to store the records of students: 2

Admn	Name	Stream	Optional	Average
1001	Shrishti	Science	CS	90
1002	Ashi	Humanities	Maths	80
1003	Aditya	Commerce	IP	60
1004	Ritu Raj	Science	IP	65
1005	Sonali	Commerce	Maths	60
1006	Saumya	Science	IP	65

She has written following queries:

- i) select avg(Average) from Student where Stream='Science';
- ii) select left(Name,3) from Student where Average!=60;

Predict the output.

OR

Based on the table given above, help Mrs. Dutta writing queries for the following task:

- i) To display the name of student getting highest average .
- ii) To display the names of those students where names contain the letter 'i' in the third position.

Section-B

Each question carries 3 marks

8. Predict the output of the following queries:

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- i. select right(substr('sps@ghy.nic.in',2,7),3);
- ii. select upper(left('sps@ghy.nic.in ',3));
- iii. select length(mid('sps@ghy.nic.in',-6));

OR

Consider the following table- Employee

Table: Employee

No	Name	Salary	Zone	Age	Grade	Dept
1	Mukul	30000	West	28	A	10
2	Kritika	35000	Centre	30	A	10
3	Naveen	32000	West	40		20
4	Uday	38000	North	38	C	30
5	Nupur	32000	East	26		20
6	Mokesh	37000	South	28	B	10
7	Shelly	36000	North	26	A	30

Based on this table write SQL statements for the following queries: -

- i. To display the total salary for all the employees who are from West zone.
- ii. To count no of employees without any grade.
- iii. To display zone wise highest salary and lowest salary.

9. Priya is working with functions of MySQL. Explain her following-

3

- i. What is the purpose of DAY () function?
- ii. Name any date function that returns integer type data.

iii. What is the general format of date() function's return type?

10. State any two differences between single row functions and multiple row functions.

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Section-C

Each question carries 4 marks

11. Consider the following table –Person

PID	PName	DOB	Gender	Address	Salary
P101	RRajkumar	1977-01-12	M	Delhi	45678.99
P102	S Singh	1965-12-31	M	Delhi	78954.50
P103	R Shukla	1987-11-23	F	Mumbai	23456.00
P104	K Kamal	1999-05-21	M	Mumbai	43222.99
P105	A Bose	1989-01-01	F	Kolkata	31000.00

Write SQL queries for the following:

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(a) To display the records in decreasing order of Salary.

(b) To display Address and Address wise total number of persons.

(c) To display the Address and its total salary.

(d) To display Address and Address wise oldest person's age.

12. Bimal, a database analyst has created the following table:

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Table : TRANSPORTER

ORDERNO	DRIVERNAME	SALARY	ITEM	TRAVELDATE
10012	RAM YADAV	9876.99	TELEVISION	2019-04-19
10014	SOMNATH SINGH	12345.50	FURNITURE	2020-01-12
10016	MOHAN VERMA	15999.50	WASHING MACHINE	2019-06-06
10018	RISHI SINGH	6575.99	REFRIGERATOR	2020-04-07

He has written following queries:

(i) select sum(SALARY) from **TRANSPORTER** where YEAR(TRAVELDATE)=2019;

(ii) select max(SALARY)+min(SALARY) from **TRANSPORTER** where LENGTH(ITEM)>=10;

(iii) select avg(SALARY) from **TRANSPORTER** where RIGHT(DRIVERNAME,1)='H';

(iv) select instr(DRIVERNAME,'M') from **TRANSPORTER** where MONTHNAME(TRAVELDATE)='April';

Help him in predicting the output of the above given queries.

OR

Write SQL queries using SQL functions to perform the following operations:

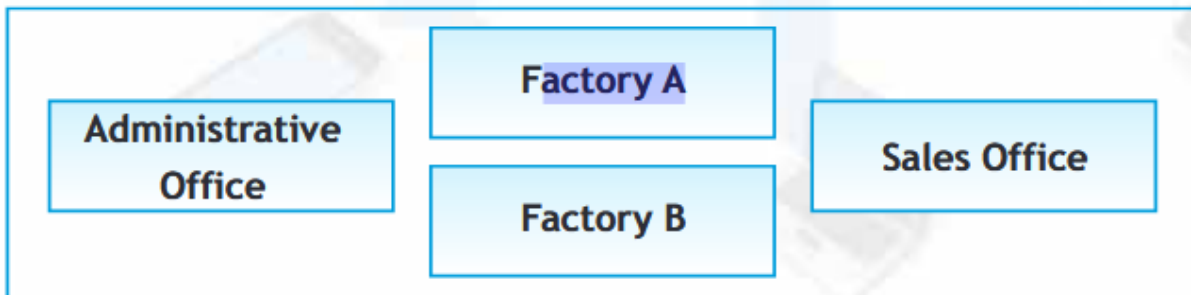
(i) Display Item name along with year of the travel date all the items which item is Furniture.

(ii) Display the details of all item where item names containing more than 10 characters.

(iii) Display first 3 characters of item names and last 3 characters of driver names.

- (iv) Display Order no, driver names and salary rounded to the nearest rupee of all the items.

13. Radha Industries has set up its new production unit and sales office at Ranchi. The company compound has 4 buildings as shown in the diagram below: 4



Distances between these buildings are as follows:

- Administrative Office to Factory A 150 m
- Factory A to Factory B 50 m
- Factory B to Sales Office 100m
- Sales Office to Administrative office 200m
- Administrative Office to Factory B 125 m

Number of Computers in each of the buildings is follows:

- Administrative Office - 15
- Factory A – 25
- Factory B - 18
- Sales Office - 15

- a. Suggest the most appropriate topology of the connection between the offices.
- b. Suggest a cable layout of connections between the buildings so that each building is directly connected to Administrative Office.
- c. Suggest the most suitable place (i.e. building) to house the server of this production unit with a suitable reason.
- d. Suggest the placement of the following devices with justification: (i) Repeater (ii) Hub/Switch.