



PERIODIC TEST – III (2021-22)

Subject: INFORMATICS PRACTICES -H
Grade: XII

Max. Marks: 35
Time: 80 Minutes

SECTION A

1. Which of the following device send data to every connected node: 1
(i) Switch (ii) Hub (iii) Router (iv) Gateway
2. Which out of the following, will you use to have an audio chat with an expert sitting in a far-away place to fix up a technical issue? 1
(i) VoIP
(ii) Email
(iii) FTP
3. What is the significance of cookies stored on a computer? 1
4. How is it easier to diagnose fault in Star topology than in Bus topology ? 1

SECTION B

1. Write the output 2
i) SELECT POWER(2,3);
ii) SELECT MOD(10,7);
2. Write the sql command to perform the following: 2
i) Display name of the day and month of your DOB.
ii) Display current date and time.
3. Differentiate between group by and order by clause in sql 2
4. Explain the purpose of Modem and Gateway 2
5. Write SQL query to create a table “Book” with the following structure 2
Table: Registration

Field name	Datatype	Size	Constraint
Book_Id	Integer	2	Primary Key
BName	Varchar	20	Not Null
Category	Varchar	10	
Issue_Dt	Date		
6. Consider the below mentioned table of Electronics, 3

BRAND	APPLIANCE_NAME	DISCOUNT	PRICE	QUANTITY
LG	REFRIGERATOR	15	19800	63
SAMSUNG	SMART PHONE	20	22300	26
LLOYD	TELEVISION	22	12900	12

LG	AIR CONDITIONER	15	23500	32
GODREJ	WASHING MACHINE	18	18900	48
SONY	TELEVISION	12	35600	52
SAMSUNG	WASHING MACHINE	15	20110	35

Write the commands for the following:

- Display the average discount of each brand having quantity more than 50.
- Count the total number of washing machine available in the table.
- Display the Brand and Name of Appliance with maximum price.

- While creating the table Emp(T-id,Tname,salary,dept) last week, Ms. Sharma forgot to include the column course_attended. Now write a command to insert the course_attended column with VARCHAR data type and 30 size into the Emptable? (1)
 - Ms Sharma forgot to add a primary key while creating the emp table. Write the query to set T_id as the primary key.(1)
 - Write the command to increase salary of all teacher by 10%. (1)
- Consider an EMP table(Empid,Firstname,lastname). Write the query for each of the following.
 - Display LastName and Firstname from emp table who have "in" in the second or third position in their first names
 - Display the Firstname from emp table that are 5 chars long.
 - Display the 2 letters of firstname starting from third character.

SECTION C

- Write the SQL commands for qns(i) to (7) & output for 8 to 10 based on the following table: Patient

PNAME	AGE	WARD	ADMITDATE	TARIFF	GEN
KARIM	32	ORTHO	2012-02-19	1600.0	M
ARUN	12	SURGERY	2012-11-01	1900.0	M
ZAFAR	30	ENT	2012-01-12	1500.0	M
KIRAN	16	ENT	2012-02-24	1500.0	F
ANKUR	29	CARDIO	2012-02-20	1800.0	F
SUHAIL	45	ORTHO	2012-02-22	1600.0	F
KETAN	19	CARDIO	2012-01-13	1800.0	M
ANUSHA	23	SURGERY	2012-02-21	1900.0	F
ARPRIT	42	CARDIO	2012-02-23	1800.0	M
TARUN	53	SURGERY	2012-01-17	1900.0	M
GAURAV	39	ENT	2012-10-11	1500.0	F

- Display the unique wards in the patient table.
- Display the name of patients that is ending with K.
- Display number of patients in each ward
- Display the details of Female patients admitted in October month.

2 Consider a table SALESMAN with the following data:

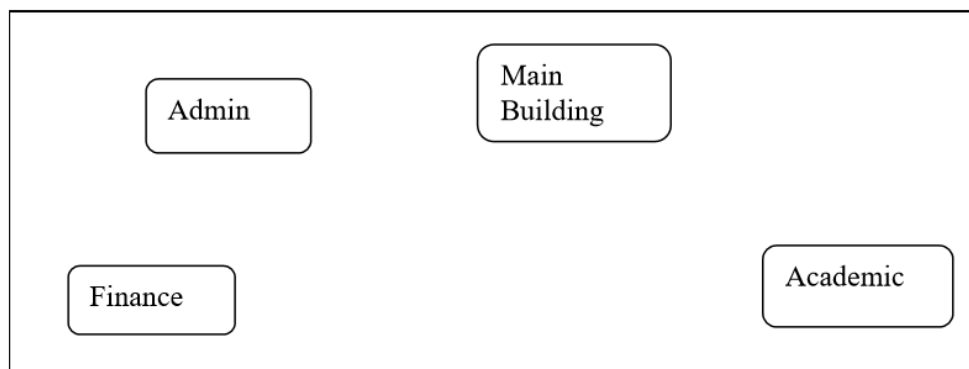
4

SNO	SNAME	SALARY	BONUS	DATEOFJOIN
A01	Beena Mehta	30000	45.235	29-10-2019
A02	K.L.Sahay	50000	25.348	13-03-2018
B03	Nisha Thakkar	30000	35.789	18-03-2017
B04	Leela Yadav	80000	NULL	31-12-2018
C05	Gautam Gola	20000	NULL	23-01-1989
D07	Neena Sharma	50000	27.894	18-03-1999

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

- Display salesman name and bonus after rounding off to two decimal places.
- Display the position of occurrence of the string "ta" in salesman names.
- Display the first two characters from salesman and last two chars.
- Display the name of the weekday for the date of join of salesman

3 Sanskar University of Himachal Pradesh is setting up a secured network for its campus at Himachal Pradesh for operating their day-to-day office & web based activities. They are planning to have network connectivity between four buildings. Answer the question (i) to (iv) after going through the building positions in the campus & other details which are given below:



The distances between various buildings of university are given as:-

Building 1	Building 2	Distance(in mtrs.)
Main	Admin	50
Main	Finance	100
Main	Academic	70
Admin	Finance	50
Finance	Academic	70
Admin	Academic	60

Number of computers:-

Building	No. of Computers
Main	150
Admin	75
Finance	50
Academic	60

As a network expert, you are required to give best possible solutions for the given queries of the university administration:-

- (a) Suggest cable layout for the connections between the various buildings,
- (b) Suggest the most suitable building to house the server of the network of the university,
- (c) Suggest the placement of following devices with justification:

- 1. Switch/Hub

- 2. Repeater

- (d) Suggest the technology out of the following for setting-up very fast Internet connectivity among buildings of the university

- 1. Optical Fibre

- 2. Coaxial cable

- 3. Ethernet Cable
