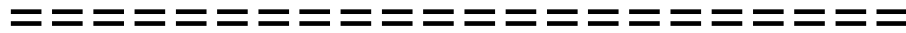




# GOVIND VIDYALAYA TAMULIA



## Assignment on Part-B(BA,DBMS/SQL/Net.) Session 2018-19 STD XII

❖ **General Instruction:**

➤ All the questions are compulsory to make in assignment copy and must be submitted on reopening day of summer vacation.

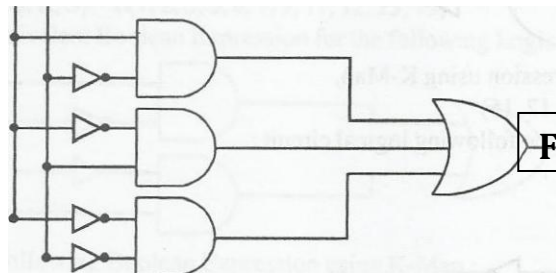
**Boolean algebra**

1. Write the POS form of a Boolean function H, which is represented in a truth table as follows?

X	Y	Z	H
0	0	0	1
0	0	1	0
0	1	0	1
0	1	1	0
1	0	0	1
1	0	1	0
1	1	0	1
1	1	1	0

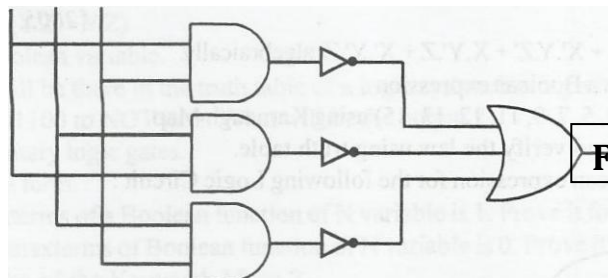
2. Write the dual of the  $(x y) (y + z) (z' + x')$ .
3. Prove that  $a + a'b = a + b$ .
4. Prove that  $ab + ab' = a$
5. State the associative law and verify the law using truth table.
6. Reduce the following Boolean expression using K-Map : $(A, B, C, D)=\sum(0, 1, 2, 3, 4, 5, 10, 11, 15)$
7. Write the equivalent Boolean expression for the following Logic Circuit :

U V



8. Reduce the following Boolean expression using K-Map: $F(P, Q, R, S)=\pi (0, 3, 5, 6, 7, 11, 12, 15)$
9. Write the equivalent expression for the following Logical Circuit:

A B C



10. Reduce the following Boolean expression using K-Map : $(P, Q, R, S)=\sum(1, 3, 5, 8, 11, 12, 15)$

## DBMS and SQL

11. What do you understand by the term Primary Key and Degree of a relation in relational database ?
12. What do you understand by the term Candidate Key and Cardinality of a relation in relational database ?
13. What is an Alternate Key ?
14. What do you understand by Union & Cartesian Product operations in relational algebra ?
15. What do you understand by Selection & Projection operations in relational algebra ?
16. Consider the following table STOCK and DEALERS and answer (a) and (b) parts of this question.

**Table : STOCK**

ITEMNO	ITEM	DCOD	QTY	UNITPRI	STOCKDA
5005	BALL PEN 0.5	102	100	16	31-MAR-10
5003	BALL PEN 0.25	102	150	20	01-JAN-10
5002	GEL PEN	101	125	14	14-FEB-10
5006	GEL PEN	101	200	22	01-JAN-09
5001	ERASER SMALL	102	210	5	19-MAR-09
5004	ERASER BIG	102	60	10	12-DEC-09
5009	SHARPENER	103	160	8	23-JAN-09

**Table: DEALERS**

DCODE	DNAME
11	RELIABLE STATIONERS
1B	CLASS PLASTICS
1E	CLEAR DEALS

- (a) Write SQL commands for the following statements:
- (i) To display details of all the Items in the Stock table in ascending order of StockDate.
  - (ii) To display ItemNo and Item name of those items from Stock table whose UnitPrice is more than Rupees 10.
  - (iii) To display the details of those items whose dealer code (Dcode) is 102 or Quantity in S (Qty) is more than 100 from the table Stock.
  - (iv) To display Minimum UnitPrice of items for each dealer individually as per Dcode from the Stock.
- (b) Give the output of the following SQL queries:
- (i) `SELECT COUNT(DISTINCT Dcode) FROM Stock;`
  - (ii) `SELECT Qty*UnitPrice FROM Stock WHERE Item No=5006;`
  - (iii) `SELECT Item, Dname FROM Stock S, Dealers D WHERE S.Dcode=D.Dcode AND ItemNo=5004;`
  - (iv) `SELECT MIN(StockDate) FROM Stock;`

## Networking

17. Expand the following terms?  
WLL, WAN, TCP/IP, HTTP, TCP/IP, XML, CDMA, URL, HTTP, M O D E M, W L L, F T P, G S M, P P P
18. Write the capabilities and services supported by LAN.
19. How does the repeater differ from the bridges?
20. What is ISO OSI standard for networks?
21. What are the facilities provided by the SERVER in a network environment?
22. Give at least two advantages of the E-Mail.
23. Differentiate between dedicated and non-dedicated servers.
24. Define (i) Simplex (ii) Half duplex (iii) Full duplex.
25. What is the difference between baseband and broadband coaxial cables?

---The End---