

ASSIGNMENT FOR PERIODIC TEST – 1 (2017- 2018)

Class : XII

subject : Computers (083)

Chapter : Database Concepts

- Q1. How many types of users work on database systems ?
- Q2. What do you understand by Domain ?
- Q3. What are the various data models available for database systems ?
- Q4. Explain the concept of Database Abstraction with the help of example.
- Q5. Define Primary Key, Alternate Key, Foreign Key.

Chapter : Structured Query Language

- Q1. What are the features of SQL ?
- Q2. Consider the table and answer the following

Table : GAMES

G code	GameName	Type	Number	Prize Schedule	Money Date
101	Carom Board	Indoor	2	5000	23-Jan-2004
102	Badminton	Outdoor	2	12000	12-Dec 2003
103	Table Tennis	Indoor	4	8000	14-Feb-2004
105	Chess	Indoor	2	9000	01-Jan-2004
108	Lawn Tennis	Outdoor	4	25000	19-Mar-2004

Table : PLAYERS

Pcode	Name	G code
1	Nabi Ahmad	101
2	Ravi Sahai	108
3	Jatin	101
4	Nazneen	103

(b) Write SQL commands for the flowing statements:

- (i) To display the name of all GAMES with their G codes
- (ii) To display details of those GAMES which are having Prize Money more than 7000.
- (iii) To display the content of the GAMES table in ascending order of Schedule Date.
- (iv) To display sum of Prize Money for each Type of GAMES

(c) Give the output of the following SQL queries:

- (i) SELECT COUNT(DISTINCT Number) FROM GAMES;
- (ii) SELECT MAX(ScheduleDate),MIN(ScheduleDate) FROM GAMES;
- (iii) SELECT Name, GameName FROM GAMES G, PLAYER P
WHERE G.Gcode=P.Gcode AND G.PrizeMoney>10000;
- (iv) SELECT DISTINCT Gcode FROM PLAYER;

Chapter : Boolean Algebra

- Q1. State and verify Involution law.
- Q2. Prove algebraically $X \cdot Y + X' \cdot Z + Y \cdot Z = X \cdot Y + X' \cdot Z$
- Q3. If $F(a, b, c, d) = \sum (0,2,4,5,7,8,10,12,1,15)$ obtain the simplified form using K-map.

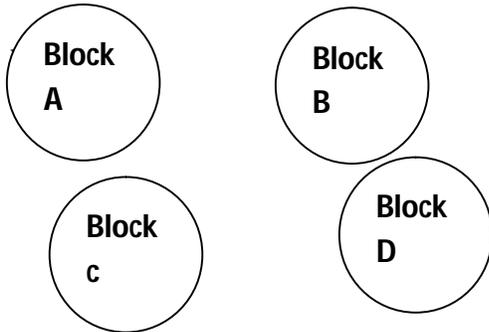
Q4. State and Prove De Morgan's Theorem.

Q5. Minimise $AB + A'C' + AB'C (AB + C)$.

Q6. Reduce $X'Y'Z' + X'YZ' + XY'Z' + XYZ'$.

Chapter : Communication and Network Concepts

Q1. Mumbai Organization has set up its new center at Mangalore for its office and web based activities. It has 4 blocks of buildings as shown in the diagram below:



Distance between

A to B	150 m
B to C	140 m
C to D	125 m
A to D	170 m
B to D	125 m
A to C	90 m

No. of Computers

Block A	95
Block B	70
Block C	185
Block D	100

- (i) Suggest a cable layout of connections between the blocks.
- (ii) Suggest the most suitable place (i.e. block) to house the server of this organization with a suitable reason.
- (iii) Suggest the placement of the following devices with justification
 - Repeater
 - Hub/Switch

(iv) The organization is planning to link its front office situated in the city in a hilly region where cable connection is not feasible, suggest an economic way to connect it with reasonably high speed?