Midterm
Variant #2

Multiple Choice

1. Which one of the following provides the ability to query information from the database and to insert tuples into, delete tuples from, and modify tuples in the database ?

   a) DML(Data Manipulation Language) b) DDL(Data Definition Language)
   c) Query d) Relational Schema

2. An attribute A of datatype varchar(20) has the value “Avi” . The attribute B of data type char(20) has value ”Reed”. Here attribute A has ____ spaces and attribute B has ____ spaces.

   a) 3, 20 b) 20, 4 c) 20 , 20 d) 3, 4

3. **`SELECT name ____ instructor name, course_id FROM instructor, teaches WHERE instructor.ID= teaches.ID;`** Which keyword must be used here to rename the field name ?

   a)From b)Rename c)As d) Join

4. **`SELECT * FROM instructor ORDER BY salary ____, name ___;`** To display the salary from greater to smaller and name in ascending order which of the following options should be used ?

   a) Ascending, Descending b) Asc, Desc
   c) Desc, Asc d)Descending, Ascending

5. ’_ _ _ ’ matches any string of _____ three characters. ’_ _ _ %’ matches any string of at _____ three characters.

   a) At least, Exactly b) Exactly, At least c) At least, All d) All , Exactly

Please write SQL queries for following tasks.

1. Create tables following tables «movies» and «theaters»:

id (serial, PK)	title (varchar(255), not null, unique)	rating (integer)	genre (varchar(50), not null)
1	Citizen Kane	5	Drama
2	Singin' in the Rain	7	Comedy
3	The Wizard of Oz	7	Fantasy
4	The Quiet Man	null	Comedy
5	North by Northwest	null	Thriller
6	The Last Tango in Paris	9	Drama

id (serial, PK)	name (varchar(255), not null, unique)	size (integer, not null)	city (varchar(50), not null)
1	Kinopark Esentai	15	Almaty
2	Star Cinema Mega	7	Almaty
3	Kinopark 8	9	Shymkent
4	Star Cinema 15	11	Astana

2. Select all the distinct sizes from theaters.
3. Select the top 3 theaters by size.
4. Select the third highest movie by rating (rating can be null).
5. Select all rated movies.
6. Select movies from Comedy and Fantasy genre with existing rating.
7. Show all movies in the following format with aliases: 1) Low rating (0-3); 2) Medium rating (4-7); 3) High rating (8-10) 4) No rating (Null)

ModieID	MovieInfo
1	The rating of Citizen Kane is Medium
2	The rating of Singin' in the Rain is High
3	The rating of The Wizard of Oz is Low
4	The Quiet Man has no rating

8. Create table named «movietheaters» with pair primary key (theater_id and movie_id):

theater_id (FK from theaters)	movie_id (FK from movies)	rating
1	5	5
3	1	7
1	3	9
4	6	6

9. Select all movies that are not currently showing in theaters.
10. Select the following data from each movie:
    - title in upper case;
    - title by removing first three letters;
    - number of characters in title;
11. Set the rating of all unrated movies to 1.
12. Remove all movies not currently showing in theaters.
13. Select all movies which has name with following pattern:
First letter is ’S’ and penultimate letter is ‘o’.
14. Select average size of theaters in each city.
15. Select movies which currently showing in more than 2 theaters.