

## Midterm Variant #1

### Multiple Choice

1. SQL stands for \_\_\_\_\_.
 

a) Sequential Query Language
b) Structured Question Language

c) Structured Query Language
d) Sequential Question Language
  
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. Which of the following is the correct order of keywords for SQL SELECT statements?
 

a) WHERE, FROM, SELECT
b) FROM, WHERE, SELECT

c) SELECT, FROM, WHERE
d) SELECT, WHERE, FROM
  
4. **SELECT \* FROM employee WHERE dept\_name="Comp Sci";** In the SQL given above there is an error. Identify the error.
 

a) Dept\_name
b) Employee
c) "Comp Sci"
d) From
  
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                       |

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

2. Select all the distinct ratings from movies.
3. Select the top 3 movies by rating.
4. Select the third biggest theater by size.
5. Select all unrated movies.
6. Select theaters from Almaty and Shymkent with size greater than 7.
7. Show all movies in the following format with aliases:

| MovieID | MovieInfo                                  |
|---------|--|
| 1       | The genre of Citizen Kane is Drama         |
| 2       | The genre of Singin' in the Rain is Comedy |
| 3       | The genre of The Wizard of Oz is Fantasy   |

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 the titles of movies not currently being shown in any theaters.
10. Select all movies by dividing to three categories (if NULL print «No rating»):
  - 1) Low rating (0-3); 2) Medium rating (4-7); 3) High rating (8-10)
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 'T', third letter is 'e' and end with letter 'n'.
14. Select average rating of each genre.
15. Select theaters which currently showing more than 1 movie.