

OPERATING SYSTEM

1. A process executes the code

```
fork ();
```

```
fork ();
```

```
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```

The total number of child processes created is

(A) 3

(B) 4

(C) 7

(D) 8

Answer (C)

2. Mutual exclusion problem occurs between

(A) two disjoint processes that do not interact

(B) process that share resources

(C) process that do not use the same resource

(D) none of these

Answer (B)

3. Dijkstra's banking algorithm in an operating system, solves the problem of

(A) deadlock avoidance

(B) deadlock recovery

(C) mutual exclusion

(D) context switching

Answer (A)

4. Consider six files :F1,F2,F3,F4,F5, and F6 with corresponding sizes 100,200,70,40,250,50 respectively, the files are to be stored on a sequential device in such a way that has to optimize access time. In what order should the files be stored?

(A) F6, F5, F4, F3, F2, F1

(B) F1, F2, F3, F4, F5, F6

(C) F5, F2, F1, F3, F6, F4

(D) F4, F6, F3, F1, F2, F5

Answer(D)

5. Let the time taken to switch between user and kernel modes of execution be t_1 while the time taken to switch between two processes be t_2 . Which of the following is TRUE?

(A) $t_1 > t_2$

(B) $t_1 = t_2$

(C) $t_1 < t_2$

(D) Nothing can be said about the relation between t_1 and t_2

Answer: - (C)

6. Consider a set of n tasks with known runtimes $r_1, r_2 \dots r_n$ to be run on a uniprocessor machine. Which of the following processor scheduling algorithms will result in the maximum throughput?

(A) Round-Robin

(B) Shortest-Job-First

(C) Highest-Response-Ratio-Next

(D) First-Come-First-Served

Answer: (B)

7. The maximum number of processes that can be in ready state for a computer system with n CPUs is

(A) n

(B) n^3

(C) 2^n

(D) independent of n

Answer:(D)

8. Interrupts per second

(A) is a good measure of the system I/O activity

(B) is a good measure of the system paging activity

(C) should never be greater than 1000/second

(D) is higher on smaller computers

Answer:(A)

9. In a time sharing system, when the time slot given to a process is completed, the process goes from the RUNNING state to the

- (A) BLOCKED state
- (B) READY state
- (C) SUSPENDED state
- (D) TERMINATED state

Answer: (B)

10. Cascading termination refers to termination of all child processes before the parent terminates

- (A) Normally
- (B) Abnormally
- (C) Normally or abnormally
- (D) none of these

Answer: (C)

DBMS

Q1)Constraint checking can be disabled in existing and constraints so that any data you modify or add to the table is not checked against the constraint.

- A) CHECK, FOREIGN KEY
- B) DELETE, FOREIGN KEY
- C) CHECK, PRIMARY KEY
- D) PRIMARY KEY, FOREIGN KEY

Answer: A) CHECK, FOREIGN KEY

Q2)The SELECT statement, that retrieves all the columns from empinfo table name starting with d to p is

- A) SELECT ALL FROM empinfo WHERE ename like '[d-p]%' ;
- B) SELECT * FROM empinfo WHERE ename is '[d-p]%' ;

C) SELECT * FROM empinfo WHERE ename like '[p-d]%' ;

D) SELECT * FROM empinfo WHERE ename like '[d-p]%' ;

Answer: D) SELECT * FROM empinfo WHERE ename like '[d-p]%' ;

Q3). Which of the sql statements is correct?

A. SELECT Username AND Password FROM Users

B. SELECT Username, Password FROM Users

C. SELECT Username, Password WHERE Username = 'user1'

D. None of these

Answer: Option B

4. Consider the following schema:

STUDENTS(student_code, first_name, last_name, email, phone_no, date_of_birth, honours_subject, percentage_of_marks);

Which of the following query would display names of all the students whose email ids are not provided?

A - select first_name, last name from students where email = 0;

B - select first_name, last name from students where email = ' ';

C - select first_name, last name from students where email is null;

D - select first_name, last name from students where email = 'null';

Answer : C

Q 5)- Which of the following is not true about USING clause?

A - When more than one column has the same name, USING clause is used for specifying the column to be joined by equijoin.

B - It is used for matching one column only.

C - You can use a table name or alias in the referenced columns.

D - The NATURAL JOIN and the USING clauses are mutually exclusive.

Answer : C

Q6). Which SQL function is used to count the number of rows in a SQL query ?

- a) COUNT()
- b) NUMBER()
- c) SUM()
- d) COUNT(*)

Answer: d

Explanation: COUNT(*) takes null value row in to consideration.

Q7). Which of the following SQL clauses is used to DELETE tuples from a database table ?

- a) DELETE
- b) REMOVE
- c) DROP
- d) CLEAR

Answer: a

Explanation: The SQL DELETE Query is used to delete the existing records from a table.

Q8) Which of the following is a valid record based data model?

- A) Object oriented model
- B) Relational model
- C) Entity Relationship model
- D) NOTA

Answer: Option B: Relational model

Q9) A view of database that appears to an application program is known as:

- A) Schema
- B) Subschema
- C) Virtual table
- D) None of the above

Answer: Option b

Q10) What term is used to refer to a specific record in your music database; for instance; information stored about a specific album?

- a) Relation
- b) Instance
- c) Table
- d) Column

Answer: Option b

Explanation: The environment of database is said to be instance. A database instance or an 'instance' is made up of the background processes needed by the database.