Section I - Unix Programming

- 1) works as a command interpretor
- A) Hardware B) Kernal C) Shell D) CPU
- 2) The major no for a floppy disk device is

A) 1 B) 3 C) 2 D) 4

- 3) chown
- A) Changes the mode of operation to kernel mode
- B) Creates a thread
- C) Changes the users and/or group ownership of each given file
- D) Creates a child process

4) lilo

- A) Uninstalls the boot loader
- B) Installs the boot loader
- C) Is a login utility
- D) Invokes a daemon to logoff

5) netdevice

- A) Provides low level access to Linux network devices
- B) Provides low level access to Linux storage devices
- C) Provides an interface to communicate with graphic devices
- D) None of the other option listed for this question

6) The process which terminates before the parent process exits, is

called

- as
- A) Zombie
- B) Orphan
- C) Child
- D) None of the other option listed for this question
- 7) Context switch means
- A) Kernel switches from executing one process to another.
- B) Process switches from kernel mode to user mode.
- C) Process switches from user mode to kernel mode.
- D) None of the other option listed for this question

8) The following socket provides two way, sequenced, reliable and

unduplicated flow of data with no record boundaries.

- A) Sequential packet socket
- B) Datagram socket
- C) Stream socket
- D) Raw socket
- 9) Identify the point(s) that is not true w.r.t. signals
- A) Signals are software generated interrupts that are sent to a process when
- an event happens
- B) Signal delivery is analogous to hardware interrupts in that a signal

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can
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be blocked from being delivered in the future.

C) Most signals are synchronous by nature.

D) Most signal cause termination of the receiving process if no action

is

taken by the process in response to the signal.

10) Identify the point(s) that is true wrt Semaphore

A) Only one process at a time can update a semaphore.

B) All the other options listed for this question

C) They are often used to monitor and control the availability of system

resources such as shared memory segments.

D) Is a process with exclusive use of a semaphore terminates abnormally and

fails to undo the operation or free the semaphore, the semaphore stays locked in the state the process left it.

RDBMS

1) When a single entity is related to itself then the relationship is

termed

as

A) ONE -TO-ONE

B) ONE-TO-MANY

C) RECURSIVE

D) MANY-TO-MANY

2) means allowing objects of different types to be

considered

as examples of higher level set

- A) AGGREGATION
- **B) SPECIALIZATION**
- C) GENERALIZATION
- D) DECOMPOSITION
- 3) The primary characteristic of a key field as that it must be
- A) A NAME
- B) TEXT
- C) UNIQUE
- D) ALL OF THE OTHER OPTION LISTED FOR THIS QUESTION
- 4) What kind of relationship exist between customers and salespersons if

each customer may have one or more salespersons, and each salesperson

may

have one or more customers?

- A) one-to-one
- B) one to many
- C) many to many
- D) many to one

5) The following is a valid SET operation.

- A) Join
- B) Insert
- C) Select

D) Difference

6) means allowing objects of different types to be

considered

- as example of a higher level set.
- A) Aggregation
- B) Specialization
- C) Generalization
- D) Decomposition

7) A relation R is said to be in the , if it is in BCNF and

there are non-trivial multi valued dependencies.

- A) 1st NF
- B) 2nd NF
- C) 3rd NF
- D) 4th NF

8) A occurs when a weak entity does not have

а

candidate key and its instances are indistinguishable without a

relationship

with another entity.

- A) Existence dependency
- B) Identifier dependency
- C) Referential dependency
- D) None of the other option listed for this question

- 9) is / are sample(s) of data model.
- A) Relational
- B) Rational
- C) Entity- relationship
- D) None of the other option listed for this question
- 10) In hierarchical database,
- A) There is one to many relationship
- B) A child may have more than one parent
- C) A parent may have more than one child
- D) There is no restriction on the number of parents a child may have or

the

number of children a parent may have

- 11) The term "inner join" refers to:
- A) Joins between two tables in the same schema.
- B) An equality join based on one column from each table.
- C) A table joined with itself.
- D) A Cartesian product join.
- 12) Which type of join is used in this query?
- SELECT last_name "Name", hire_date "Hire Date", loc "Location"
- FROM employee, department
- WHERE employee.deptno = department.deptno.
- A) Outer join
- B) Self join

C) Equijoin

D) Non-equijoin

13) A sales database has two table - SALESPERSON and CUSTOMERS as below:

SALESPEOPLE

snum NUMBER

sname VARCHAR2(10)

CUSTOMER

snum NUMBER

cname VARCHAR2(10)

The management wants to know the mapping of salespersons to their

customers

without excluding those salespersons that are not currently assigned.

What

would be the most appropriate condition, which can be applied on the

Query

to accomplish the above task?

A) salespeople.snum(+) = customers.snum

B) salespeople.snum = customers.snum(+)

C) salespeople.snum = customers.snum

D) salespeople.snum(+) = customers.snum(+)

14) join returns those rows from a table which have

no

direct match in the other table.

- A) Outer join
- B) inner join
- C) Equijoin
- D) Self join

15) To produce a meaningful result set without any Cartesian products,

what

is the minimum number of conditions that should appear in the WHERE

clause

of a four table join?

- A) 1
- B) 4
- C) 2
- D) 8