Refer the following table employee and identify the correct, “Create Table” Statement for this table.

Employee:

ID	LASTNAME	FIRSTNAME	AGE
19	**Rai**	**Rajeev**	**24**
19	**Singh**	**Rajeev**	**24**
20	**Roy**	**Sayan**	**24**
21	**Roy**	**Sayan**	**29**

a) Create table employee(ID int not NULL, LASTNAME varchar(40) not NULL, FIRSTNAME varchar(35), age int, primary key(ID));
b) Create table employee(ID int not NULL, LASTNAME varchar(40) not NULL, FIRSTNAME varchar(35), age int, primary key(LASTNAME));
c) Create table employee(ID int not NULL, LASTNAME varchar(40) not NULL, FIRSTNAME varchar(35), age int, primary key(ID, LASTNAME));
d) Create table employee(ID int not NULL, LASTNAME varchar(40) not NULL, FIRSTNAME varchar(35), age int, primary key(LASTNAME,FIRSTNAME));

Answer C

Q2. **Consider the emp table.**

emp:

Pname	pnumber	plocation	Dnum
Product A	1	Jalandhar	5
Product B	2	phagwara	6
ERP	10	Delhi	6

Identify the correct query for following output:

Pname	plocation
Product B	phagwara
ERP	Delhi

a) SELECT pname, plocation from table emp where dnum=6;
b) SELECT pname, plocation from emp FOR dnum=6;
c) SELECT pname, plocation from table emp FOR dnum=6;
d) SELECT pname, plocation from emp where dnum=6;

Answer: d

Q3. The operation of a relation A, produces B, such that B contains only selected attribute of A. Such an operation in relational algebra is :

a) Selection
b) Projection
c) Union
d) Intersect

Answer : b

Q4. Convert following query into relational algebra query:

select empid,name from emp where empid=5 and location= ‘phagwara’;

a) $\sigma_{empid = 5 \ AND \ location = "phagwara"} (emp(empid, name))$;

b) $\sigma_{empid, name} (\pi_{empid = 5 \ AND \ location = "phagwara"} (emp));$

c) $\pi_{empid, name} (\sigma_{empid = 5 \ AND \ location = "phagwara"} (emp));$

d) $\pi_{empid, name} (\sigma_{emp.empid = 5 \ emp.location = "phagwara"} (emp))$

Answer c

Q5. Suppose we wish to find all customer who have both a loan and an account. Which of the following operation allows us to produce this relation?

a) Union all
b) Union
c) Cartesian Product
d) Set intersection

Answer d

Q6. Complete the sentence: Logical Data Independence is the ability to modify

a) Physical-level schema without affecting the logical level schema
b) the logical level schema with no effect on view level schema
c) view-level schema without affecting logical level schema
d) logical- level schema without affecting physical level schema

Answer b

Q7.

Consider the relations product(name, count , shopid) and quantity(count,shopid) as follows

Table : product

name	count	shopid
MOBILE	5	1
LAPTOP	5	3
MOBILE	8	2
LAPTOP	6	2
SPEAKER	8	1
SPEAKER	25	2

Table :quantity

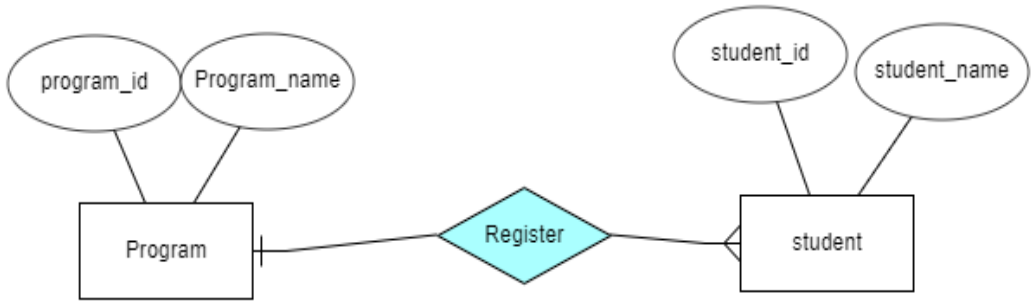
count	shopid
5	1
8	2

What Product name will be displayed by the operation product ÷ quantity ?

a) MOBILE
b) LAPTOP
c) SPEAKER
d) MOBILE, LAPTOP

Answer: a

Q8. What is the cardinality of the relation between program and student in given diagram?



a) A program can be registered by at most one student and a student can register almost one program
b) A program can be registered by at most 1 student and a student can register for N programs
c) A program can be registered by N students and a student can register at most 1 program
d) A program can be registered by N students and student can register for N programs

Answer C

Q9. The person is using web browser “Mozilla” is on computer one; and accessing a webserver “RDBMS” is on computer two. this is an example of a(n)_____

a) One tier architecture
b) Two tier architecture

c) Three tier architecture
d) None of mentioned

Answer b

Q10. Match the following

I. A person who develops a high-level language program that meet a functional requirement of the database is usually called:	1. Cardinality of the relation
II. The number of attributes in the relation	2. Degree of the relation
III. The people who are not required understanding of the complete logical schema of the database	3. An application Programmer
IV. The number of tuples in the relation	4. Data entry operator
	5. A data analyst
	6. Database administrator

Answer:

a) I- 4, II- 1 , III-5, IV- 2
b) I- 3, II- 1 , III-5, IV- 2
c) I- 3 , II- 2 , III-5, IV-1
d) I- 3, II- 2 , III-4, IV-1

Answer d

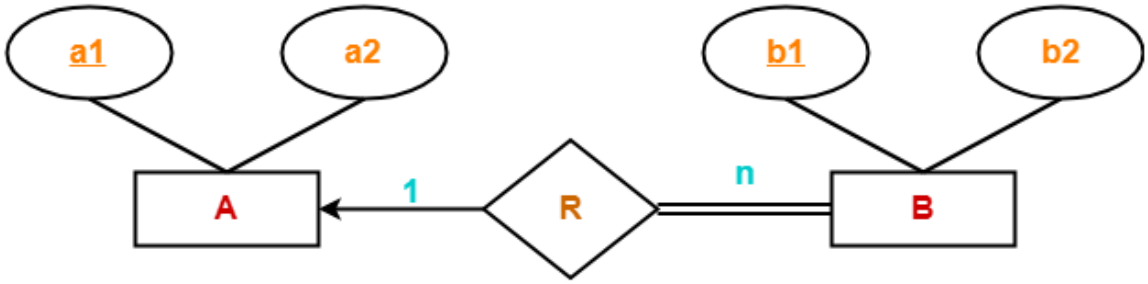
Q11. Which of the following insert statements are correct as per following relational schema:

customer (customerid int: Primary key, customername varchar(30),location varchar(35) not NULL)

a) INSERT INTO customer values(1, 'phagwara');
b) INSERT INTO customer(customerid, customername) values(1,'arpit');
c) INSERT INTO customer(customerid, location) values(1,'phagwara');
d) INSERT INTO customer(customerid) values(1);

Answer c

Q12. Consider the following ER diagram:



How many tables will be required?

a) 1
b) 2
c) 3
d) 4

Answer b

Q13. Drop Table employee cannot drop a table if a table's attribute is referenced by _____

Constraint.

a) Unique
b) Primary key
c) default
d) foreign key

Answer d

Q14. A logical structure of the database.

a) Schema
b) Instance
c) Attribute
d) Key attribute

Answer a

Q15. Identify the correct query to add a foreign key constraint on existing column in the table:

a) Alter table tablename add foreign key(colum_name);
b) Alter table tablename foreign key(column_name) references referencedtablename(primary key column)
c) Alter table tablename add foreign key(column_name) references referencedtablename(primary_key_column)
d) Alter table tablename add references referencedtablename(primary key column)