```
|============================ "1. CREACIÓN DE TABLAS" ============================|

CREATE TABLE proveedores (
p VARCHAR(2) NOT NULL,
pnombre VARCHAR(10) NOT NULL,
categoria INT NOT NULL,
ciudad VARCHAR(10) NOT NULL
);

CREATE TABLE componentes (
c VARCHAR(2) NOT NULL,
cnombre VARCHAR(3) NOT NULL,
color VARCHAR(10) NOT NULL,
peso INT NOT NULL,
ciudad VARCHAR(10) NOT NULL
);

CREATE TABLE articulos (
t VARCHAR(2) NOT NULL,
tnombre VARCHAR(15) NOT NULL,
ciudad VARCHAR(10) NOT NULL
);

CREATE TABLE envios (
p VARCHAR(2) NOT NULL,
c VARCHAR(2) NOT NULL,
t VARCHAR(2) NOT NULL,
cantidad INT NOT NULL
);

|=========================== "2. RESTRICCIONES TABLAS" ============================|

ALTER TABLE proveedores
ADD CONSTRAINT Pk_proveedores
PRIMARY KEY (p);

ALTER TABLE componentes
ADD CONSTRAINT Pk_componentes
PRIMARY KEY (c);

ALTER TABLE articulos
ADD CONSTRAINT Pk_articulos
PRIMARY KEY (t);

ALTER TABLE envios ADD CONSTRAINT Fk_proEnv FOREIGN KEY (p) REFERENCES proveedores (p);

ALTER TABLE envios ADD CONSTRAINT Fk_compEnv FOREIGN KEY (c) REFERENCES componentes (c);

ALTER TABLE envios ADD CONSTRAINT Fk_artEnv FOREIGN KEY (t) REFERENCES articulos (t);

ALTER TABLE envios
ADD CONSTRAINT Pk_envios
PRIMARY KEY (p,c,t);

|=========================== "3. INSERTs TABLAS TAREAS 5" ============================|

INSERT INTO proveedores
VALUES ('P1','CARLOS',20,'SEVILLA'),
```

```
('P2','JUAN',10,'MADRID'),
('P3','JOSE',30,'SEVILLA'),
('P4','INMA',20,'SEVILLA'),
('P5','EVA',30,'CACERES');

INSERT INTO componentes
VALUES ('C1','X3A','ROJO',12,'SEVILLA'),
('C2','B85','VERDE',17,'MADRID'),
('C3','C4B','AZUL',17,'MALAGA'),
('C4','C4B','ROJO',14,'SEVILLA'),
('C5','VT8','AZUL',12,'MADRID'),
('C6','C30','ROJO',19,'SEVILLA');

INSERT INTO articulos
VALUES ('T1','CLASIFICADORA','MADRID'),
('T2','PERFORADORA','MALAGA'),
('T3','LECTORA','CACERES'),
('T4','CONSOLA','CACERES'),
('T5','MEZCLADORA','SEVILLA'),
('T6','TERMINAL','BARCELONA'),
('T7','CINTA','SEVILLA');

INSERT INTO envios
VALUES ('P1','C1','T1',200),
('P1','C1','T4',700),
('P2','C3','T1',400),
('P2','C3','T2',200),
('P2','C3','T3',200),
('P2','C3','T4',500),
('P2','C3','T5',600),
('P2','C3','T6',400),
('P2','C3','T7',800),
('P2','C5','T2',100),
('P3','C3','T1',200),
('P3','C4','T2',500),
('P4','C6','T3',300),
('P4','C6','T7',300),
('P5','C2','T2',200),
('P5','C2','T4',100),
('P5','C5','T4',500),
('P5','C5','T7',100),
('P5','C6','T2',200),
('P5','C1','T4',100),
('P5','C3','T4',200),
('P5','C4','T4',800),
('P5','C5','T5',400),
('P5','C6','T4',500);
```

|================================== "4. CONSULTAS" ==================================|

1. SELECT * FROM articulos WHERE ciudad='CACERES';

2. SELECT p FROM envios WHERE t='T1';

3. SELECT DISTINCT color,ciudad FROM componentes;

4. SELECT t,ciudad FROM articulos WHERE ciudad LIKE '%D' OR ciudad LIKE '%E%';

5. SELECT p FROM envios WHERE t='T1' AND c='C1';

6. SELECT DISTINCT tnombre FROM articulos INNER JOIN envios ON envios.p='P1' AND envios.t=articulos.t;

7. SELECT DISTINCT envios.c FROM articulos INNER JOIN envios ON articulos.t=envios.t WHERE articulos.ciudad='MADRID';

8. SELECT c FROM componentes WHERE peso=(SELECT MIN(peso) FROM componentes);

9. SELECT envios.p FROM envios WHERE t='T1' INTERSECT SELECT envios.p FROM envios WHERE t='T2';

10. SELECT DISTINCT envios.p FROM (envios JOIN componentes ON envios.c=componentes.c) JOIN articulos ON envios.t=articulos.t WHERE (articulos.ciudad='SEVILLA' OR articulos.ciudad='MADRID') AND (componentes.color='ROJO');

11. SELECT DISTINCT c FROM envios WHERE t IN(SELECT t FROM articulos WHERE ciudad='SEVILLA') AND p IN(SELECT p FROM proveedores WHERE ciudad='SEVILLA');

12. SELECT DISTINCT t FROM envios WHERE c IN(SELECT c FROM envios WHERE p='P1');

13. SELECT p.ciudad,e.c,a.ciudad FROM envios e,proveedores p,articulos a WHERE e.p=p.p AND e.t=a.t;

14. SELECT p.ciudad,c,a.ciudad FROM envios e,proveedores p,articulos a WHERE e.p=p.p AND e.t=a.t AND p.ciudad<>a.ciudad;

15. SELECT COUNT(*),COUNT(DISTINCT t),SUM(cantidad) FROM envios WHERE p='P2';

16. SELECT c,t,SUM(cantidad) FROM envios GROUP BY c,t;

17. SELECT DISTINCT e.t FROM envios e,articulos a WHERE e.t=a.t AND EXISTS (SELECT * FROM proveedores p WHERE p.ciudad!=a.ciudad AND p.p=e.p AND p.ciudad!='MADRID');

18. SELECT DISTINCT p FROM envios WHERE c IN (SELECT c FROM envios WHERE p IN (SELECT p FROM envios NATURAL JOIN componentes WHERE color='ROJO'));

19. SELECT DISTINCT t FROM envios WHERE c IN (SELECT c FROM envios GROUP BY c HAVING AVG(cantidad)>320);

20. SELECT DISTINCT p FROM envios e WHERE cantidad>(SELECT AVG(cantidad FROM envios b WHERE b.c=e.c));

21. SELECT c FROM envios WHERE t='T2' AND p='P2';

22. SELECT e.* FROM envios e NATURAL JOIN componentes WHERE color<>'ROJO';

23. SELECT c FROM envios WHERE t='T1' INTERSECT SELECT c FROM envios WHERE t='T2';

24. SELECT p,COUNT(*) FROM envios WHERE c IN (SELECT c FROM componentes WHERE color='ROJO') GROUP BY p;

25. SELECT DISTINCT color FROM componentes WHERE c IN (SELECT DISTINCT c FROM envios WHERE p='P1');

26. SELECT e.*,c.ciudad FROM envios e,componentes c,articulos a,proveedores p WHERE e.t=a.t AND e.c=c.c AND e.p=p.p AND p.ciudad=c.ciudad AND p.ciudad=a.ciudad;

27. SELECT DISTINCT cnombre FROM componentes WHERE c IN (SELECT c FROM envios GROUP BY c HAVING SUM(cantidad)>500);

28. SELECT p FROM proveedores WHERE ciudad='SEVILLA' MINUS (SELECT p FROM envios GROUP BY p HAVING COUNT(DISTINCT t)>2);

29. SELECT t FROM envios e,componentes c WHERE e.c=c.c GROUP BY t HAVING COUNT(DISTINCT ciudad)=1;

30. SELECT t FROM envios GROUP BY t HAVING COUNT(DISTINCT c)=(SELECT COUNT(*) FROM componentes);

31. SELECT p,t FROM envios e,componentes c WHERE e.c=c.c AND c.color='ROJO' GROUP BY p,t HAVING COUNT(*)>1;