

Question 1

1)

- A(a1, a2)
- B(a1) , a1 refer to A
- C(a1, c1) , a1 refer to A
- D(d1,d2)
- E(e1, e2, bd1), a1 refer to BD
- F(f1,f2, a1) , a1 refer to C
- BD(bd1, a1, d1)

2)

Question 2

NOT ON FINAL

Question 3

a)

```
SELECT c.pids FROM `Current` c JOIN Past p ON (c.tid = p.tid, c.pid = p.pid);
```

b)

```
SELECT * FROM
(SELECT tid, pid, `from`, `to` FROM past
UNION
SELECT tid, pid, `from`, current_time FROM current) as union_select
ORDER BY (tid, `from`);
```

c)

```
SELECT DISTINCT pids FROM `Current` c JOIN Task t ON c.tid = t.tid WHERE t.difficulty >= 4;
```

d)

```
SELECT tids FROM Task t WHERE (
    SELECT count(*) FROM Past p WHERE p.tid = t.tid
) > 10;
```

e)

```
SELECT tids FROM Task t WHERE (
    SELECT count(*) FROM Past p WHERE p.tid = t.tid
) + (
    SELECT count(*) FROM Current c WHERE c.tid = t.tid
) > 10;
```

f)

```
CREATE TRIGGER pointless
BEFORE INSERT ON `Current`
REFERENCING NEW as nrow
FOR EACH ROW
INSERT INTO Past VALUES (
```

```
SELECT *, current_time FROM `Current` c WHERE c.tid == nrow.tid
)
DELETE FROM `Current` c WHERE c.tid == nrow.tid;
```