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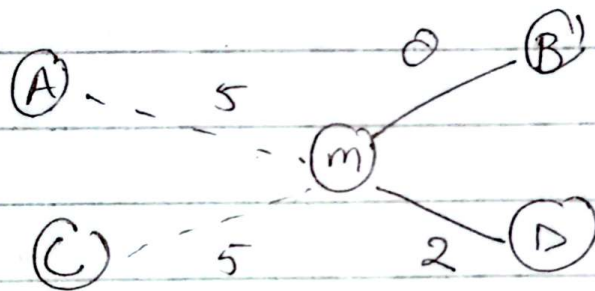
Roll no: 21L-5294

Section: BCS-8B

Assignment: 4

Activity 1

| | A | B | C | D |
|---|---|---|---|---|
| A | 0 | 5 | 4 | 7 |
| B | 5 | 0 | 5 | 2 |
| C | 4 | 5 | 0 | 7 |
| D | 7 | 2 | 7 | 0 |



$$d_{B,m} = (D_{B,A} + D_{B,D} - D_{D,A}) / 2 \\ = (5 + 2 - 7) / 2 = 0$$

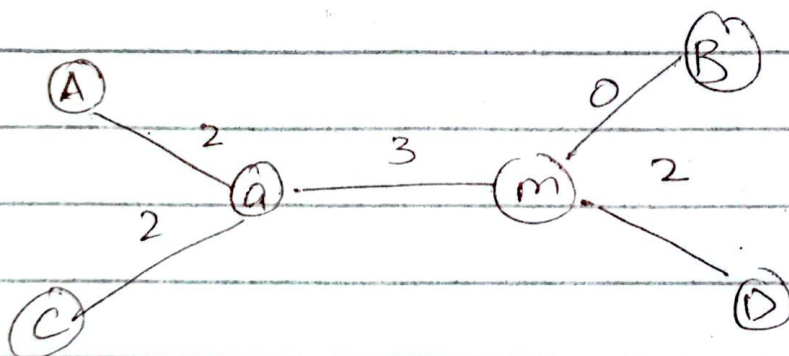
$$d_{D,m} = D_{D,B} - d_{B,m} = 2 - 0 = 2$$

$$d_{A,m} = D_{A,B} - d_{B,m} = 5 - 0 = 5$$

$$d_{C,m} = D_{C,B} - d_{B,m} = 5 - 0 = 5$$

| | A | B | C | D | m |
|---|---|---|---|---|---|
| A | 0 | 5 | 4 | 7 | 5 |
| B | 5 | 0 | 5 | 2 | 0 |
| C | 4 | 5 | 0 | 7 | 5 |
| D | 7 | 2 | 7 | 0 | 2 |
| m | 5 | 0 | 5 | 2 | 0 |

| | A | C | M |
|---|---|---|---|
| A | 0 | 4 | 5 |
| C | 4 | 0 | 5 |
| M | 5 | 5 | 0 |



$$d_{A,a} = (D_{A,m} + D_{A,c} - D_{c,m}) / 2$$

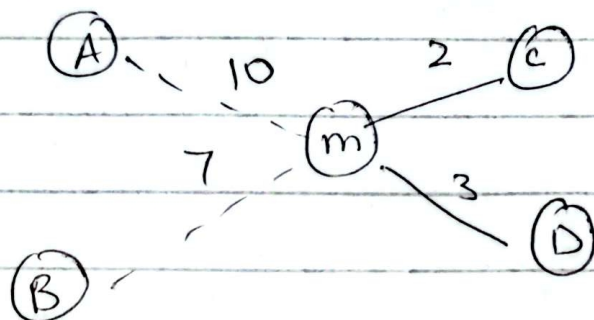
$$d_{A,a} = (5 + 4 - 5) / 2 = 4 / 2 = 2$$

$$d_{c,a} = D_{c,a} - d_{A,a} = 4 - 2 = 2$$

$$d_{a,m} = D_{A,m} - d_{A,a} = 5 - 2 = 3$$

Class Activity 2

| | A | B | C | D |
|---|----|----|----|----|
| A | 0 | 5 | 12 | 13 |
| B | 5 | 0 | 9 | 10 |
| C | 12 | 9 | 0 | 5 |
| D | 13 | 10 | 5 | 0 |



$$d_{C,m} = (D_{C,A} + D_{C,D} - D_{D,A})/2$$

$$= (12 + 5 - 13)/2 = 4/2 = 2$$

$$d_{D,m} = D_{D,D} - d_{C,m} = 5 - 2 = 3$$

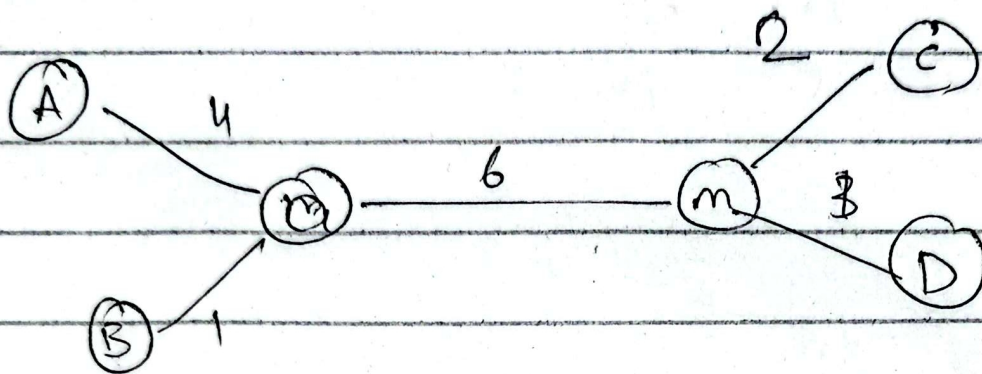
~~$$d_{D,m} = D_{C,D} - d_{C,m}$$~~

$$d_{A,m} = D_{A,C} - d_{C,m} = 12 - 2 = 10$$

$$d_{B,m} = D_{B,C} - d_{C,m} = 9 - 2 = 7$$

| | A | B | C | D | m |
|---|----|----|----|----|----|
| A | 0 | 5 | 12 | 13 | 10 |
| B | 5 | 0 | 9 | 10 | 7 |
| C | 12 | 9 | 0 | 5 | 2 |
| D | 13 | 10 | 5 | 0 | 3 |
| m | 10 | 7 | 2 | 3 | 0 |

| | A | B | m |
|---|----|---|----|
| A | 0 | 5 | 10 |
| B | 5 | 0 | 7 |
| m | 10 | 7 | 0 |



$$d_{A,a} = (D_{A,m} + D_{A,B} - D_{B,m}) / 2$$

$$= (10 + 5 - 7) / 2$$

$$d_{B,a} = D_{A,B} - d_{A,a} = 5 - 4 = 1$$

$$d_{a,m} = D_{A,m} - d_{A,a} = 10 - 4 = 6$$