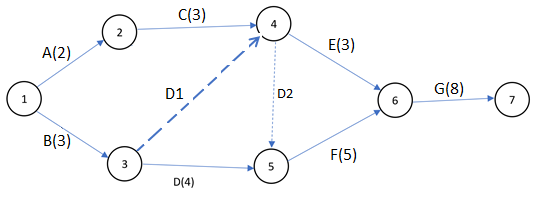
**MTH601 Assignment No.1 Solution**

**Question:**



Construct a table which shows the relationship between the activities and their predecessors.

|  |  |  |
| --- | --- | --- |
| **Activities** | **Predecessors** | **Durations** |
| A | \_ | 2 |
| B | \_ | 3 |
| C | A | 3 |
| D | B | 4 |
| E | C | 3 |
| F | D | 5 |
| G | E, F | 8 |

**2. Calculate the following time estimates for each activity.**

1. Earliest Start Time(EST)
2. Earliest Finish Time (EFT)
3. Latest Start Time (LST)
4. Latest Finish Time (LFT)­­

**Ans :**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Activities** | **EST** | **EFT** | **LST** | **LFT** |
| A | 0 | 2 | 4 | 6 |
| B | 0 | 3 | 0 | 3 |
| C | 2 | 5 | 6 | 9 |
| D | 3 | 7 | 3 | 7 |
| E | 5 | 8 | 9 | 12 |
| F | 7 | 12 | 7 | 12 |
| G | 12 | 20 | 12 | 20 |

**3. Calculate the total float for each activity.**

**Ans:-**

Total Float = LFT – EFT

|  |  |
| --- | --- |
| **Activities** | **Total Float = LFT - EFT** |
| A | 6 -2 = 4 |
| B | 3- 3 = 0 |
| C | 9- 5 = 4 |
| D | 7- 7 = 0 |
| E | 12 - 8 = 4 |
| F | 12 – 12 = 0 |
| G | 20 - 20 = 0 |

1. **Identify the critical path.**

**Ans:-**

Path of activities

A-C-E-G = 2-3-3-8 = 16

B-D-F-G = 3-4-5-8 = 20

The longest path is B-D-F-G. So it is critical path.

**6. Find the project completion time.**

**Ans:-**

The project completion time = 20