**SID: 480110301**

**Question1**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Activity** | **Duration** | **ES** | **EF** | **LS** | **LF** | **Slack** | **Critical** |
| A | 4 | 0 | 4 | 0 | 4 | 0 | yes |
| B | 4 | 4 | 8 | 4 | 8 | 0 | yes |
| C | 7 | 4 | 11 | 4 | 11 | 0 | yes |
| D | 10 | 8 | 18 | 8 | 18 | 0 | yes |
| E | 8 | 8 | 16 | 10 | 18 | 2 | no |
| F | 7 | 11 | 18 | 11 | 18 | 0 | yes |
| G | 5 | 18 | 23 | 18 | 23 | 0 | yes |

There are two critical path: A-B-E-G and A-C-F-G.

**Crashing:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Path** | **Duration** | D & F | G | B & F |
| ABDG | 23 | 22 | 21 | 20 |
| ABEG | 21 | 21 | 20 | 19 |
| ACFG | 23 | 22 | 21 | 20 |
| **Crashing cost** | | 800 | 900 | 1100 |

After crashing, the completion time can be reduced to 20 days at a total crashing cost of $2800.