# K.J. SOMAIYA INSTITUTE OF MANAGEMENT STUDIES \& RESEARCH <br> PGDM (EXECUTIVE) - 2017-18 BATCH <br> V TRIM - END TERM EXAM 

Date : 19/12/2018
Time : 1.5 Hours
Marks : 25

Note : Answer any five question. Each Question carries 5 marks.
Q.1. A project consisting of 7 activities has the following relevant information (All duration are in weeks)

| Activity | Optimistic Time | Most Likely time | Pessimistic Time |
| :---: | :---: | :---: | :---: |
| $1-2$ | 1 | 1 | 7 |
| $1-3$ | 1 | 4 | 7 |
| $1-4$ | 2 | 2 | 8 |
| $2-5$ | 1 | 1 | 1 |
| $3-5$ | 2 | 5 | 14 |
| $4-6$ | 2 | 5 | 8 |
| $5-6$ | 3 | 6 | 15 |

(a) Draw the network and find critical path \& Critical time of the project.
(b) What is the probability that the project will be extended to 20 weeks.
(c) Find the number of weeks required by the project manager to complete the project with a probability of 0.95 .
(d) Calculate EOT, LOT and Slack floats.
Q.2. The following table gives the activities in a project and other relevant information ::

| Activity | Time in days |  | Cost in Rs. |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Normal | Crash | Normal | Crash |
| $1-2$ | 8 | 6 | 100 | 200 |
| $1-3$ | 4 | 2 | 150 | 350 |
| $2-4$ | 2 | 1 | 50 | 90 |
| $2-5$ | 10 | 5 | 100 | 400 |
| $3-4$ | 5 | 1 | 100 | 200 |
| $4-5$ | 3 | 1 | 80 | 100 |

(a) Draw a network diagram of the project.
(b) Determine the project duration which will result in minimum total direct cost.
(c) If the indirect cost is Rs. 70/- per day, determine the optimum duration of the project.
Q.3. A Company promoted by Shri. Darshan is bidding on a contract to repair cooling towers. It has identified the activities along with their expected times, predecessors and workers requirements.

The contract specifies that the project must be completed in 14 weeks. What should be the minimum number of workers that needs to be assigned to this project, so that it can be completed in weeks ? (

Draw GANTT Chart \& Network diagram)

| Activity | Predecessors | Duration in week | Workers required |
| :---: | :---: | :---: | :---: |
| A | - | 4 | 4 |
| B | - | 7 | 2 |
| C | A | 3 | 2 |
| D | A | 3 | 4 |
| E | B | 2 | 6 |
| F | B | 2 | 3 |
| G | D,E | 2 | 3 |
| H | F,G | 3 | 4 |

Q.4. Explain in details various stages of Project Life Cycle.
Q.5. Explain with illustrations about Project Identification \& Formulation
Q. 6 Write a Short note on DPR, WBS, Project Contracts.

