

(3 Hours)

(80 marks)

N.B.: (1) Q. No. 1 is compulsory

(2) Answer any THREE questions from the remaining questions.

(3) Figures to the right indicate full marks.

(4) Illustrate answers with neat sketches where ever required.

1. Write short note on. (Any Four) 20
- Triple constraints
 - Work Breakdown structure (WBS)
 - Scope creep
 - GANTT chart
 - Goldratt's critical chain
 - Lessons learned analysis

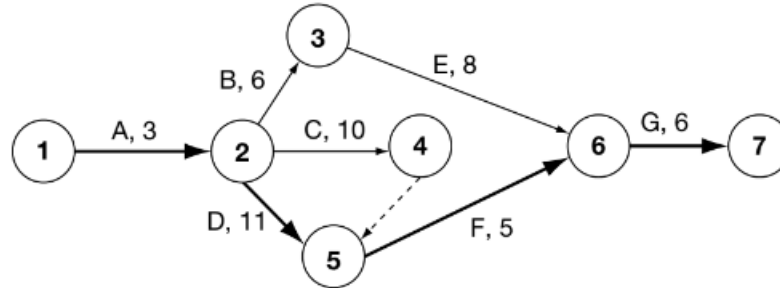
2. (a) Describe PM knowledge areas as per Project Management Institute (PMI) in brief. 10
- (b) Explain process for Project portfolio and Project Charter. 10

3. (a) The time estimates in weeks for the activities of a PERT network are given in Table below: 10

| Activity | Optimistic time (to) | Most likely time (tm) | Pessimistic time (tp) |
|----------|-------------------------|--------------------------|--------------------------|
| A-B | 1 | 1 | 7 |
| A-C | 2 | 5 | 8 |
| A-D | 2 | 2 | 8 |
| C-E | 3 | 6 | 15 |
| D-E | 1 | 4 | 7 |
| E-F | 2 | 5 | 14 |
| B-F | 2 | 5 | 8 |

- Draw the network diagram.
 - Calculate the earliest start (ES) and latest start (LS) for all the activities.
 - Determine the project completion time.
 - Calculate the standard deviation and variance of the project.
- (b) Explicate the Top down and bottoms up budgeting approach for a large project. 10

4. (a) Tabulate with example, the Risk response strategies for positive and negative risks in project management. 10
- (b) The total normal direct cost of a project is Rs 450 and its indirect cost is Rs 400. By crashing the activities, the indirect cost decreases by Rs 50 per day. The normal and crash costs with time are given in Table and the network diagram in Figure given below. Find the optimum project duration. 10



| Activity | Normal | | Crash | |
|----------|--------|------|-------|------|
| | Time | Cost | Time | Cost |
| A | 3 | 50 | 2 | 70 |
| B | 6 | 80 | 4 | 160 |
| C | 10 | 60 | 9 | 90 |
| D | 11 | 50 | 7 | 150 |
| E | 8 | 100 | 6 | 160 |
| F | 5 | 40 | 4 | 70 |
| G | 6 | 70 | 6 | 70 |

5. (a) Explicate Earned Value Management techniques for measuring value of work completed in the concerned project. 10
- (b) How ethics in projects are looked upon for successful government's project completion? Illustrate with suitable example. 10
6. (a) What are the four stages for team development and growth? Enlist the barriers for effective team management. 10
- (b) Discuss the reasons of project termination. Describe Process of project termination. 10
