

# EXERCISE ON GANTT CHART AND PERT CHART

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# DRAW GANTT CHART AND PERT CHART (DURATION 1 FOR EACH TASK)

## Problem 1.1

- a) Construct an activity on arrow network based on the activity descriptions below. Show all your work. Label activities in the network by their activity letters and node numbers. Remove any redundant dependencies and label dummy activities DUMMY1, DUMMY2, etc.
  - b) Construct a precedence network based on the same activity descriptions below. Show all your work. Label activities in the network by their activity letters and node numbers. Remove all redundant dependencies and arrange activities in proper sequence steps.
- Activities H, R2, T1 start the project.
  - Activity T2 can start when Activities H, E1 and S are completed.
  - Activity E1 also depends on Activity R2.
  - Activity X follows Activity H and precedes Activity L.
  - Activity E is preceded by Activities T2 and P1.
  - The predecessors to Activity G are Activities L, T2 and P1.
  - The successors to Activity T1 are Activities E1, S, W and D2.
  - Activity P1 cannot begin until Activity W is finished.
  - Activity P2 and F follow Activities W and D2, and precede Activities E and R1.
  - Activity O2 depends on T2 and P1 , and precedes Activity L.

# DRAW GANTT CHART AND PERT CHART (DURATION 1 FOR EACH TASK)

## Problem 1.2

- a) Construct an activity on arrow network based on the activity descriptions below. Show all your work. Label activities in the network by their activity letters and node numbers. Remove any redundant dependencies and label dummy activities DUMMY1, DUMMY2, etc.
  - b) Construct a precedence network based on the same activity descriptions below. Show all your work. Label activities in the network by their activity letters and node numbers. Remove all redundant dependencies and arrange activities in proper sequence steps.
- Activity I follows Activity B and precedes Activity Q.
  - Activity B1 precedes Activity P and follows the completion of Activities Q , K2 , and E.
  - Activity R follows the completion of Activity B.
  - Activity S2 follows Activities R and S1, and precedes Activity P.
  - Activity K3 is preceded by Activities X , L , and Z, and followed by Activities G and F.
  - Activity E2 precedes Activities A1 , X , L , and Z.
  - Activity B can start when Activities A1 and X are completed.
  - The predecessors to Activity S1 are Activities E , G , and F.
  - Activity E depends on Activity L and E2 and precedes Activities N2, S1 , and K2.
  - Activity K2 follows Activities N2 , R , and L.
  - Activity P depends on Activities R and N2.
  - Activity S2 depends on Activities X, F, and E2.

# DRAW GANTT CHART AND PERT CHART (DURATION 1 FOR EACH TASK)

Task	Description	Duration (Working Days)	Predecessor/s
A	Requirement Analysis	5	
B	Systems Design	15	A
C	Programming	25	B
D	telecoms	15	B
E	Hardware Installation	30	B
F	Integration	10	C, D
G	System Testing	10	E, F
H	Training/Support	5	G
I	Handover and Go-Live	5	H

THANK YOU

