Registration no: | | | | | | | | | | |

Total Number of Pages: 02

M.TECH

MT321/EYMT304

3rd Semester Regular / Back Examination – 2016-17

PROJECT MANAGEMENT

BRANCH(S): ECE,ETE,PSE,ESE

Time: 3 Hours

Max Marks: 70

Q.CODE : Y827

Answer Question No.1 which is compulsory and any five from the rest.

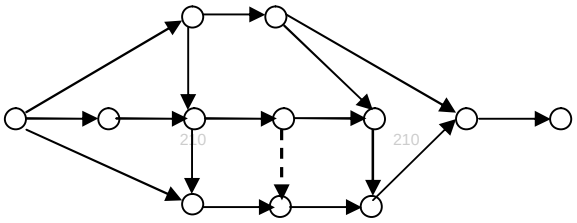
The figures in the right hand margin indicate marks.

Q1 Answer the following questions: (2 x 10)

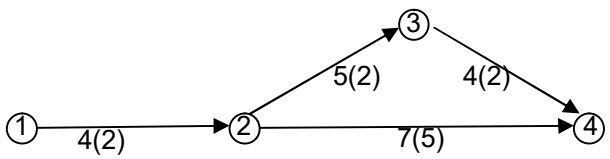
a) State the phases of project management.
b) What is the importance of a dummy activity in a network?
c) What are Bar charts and Milestone charts?
d) Define events and activities in connection with network analysis.
e) Define total float.
f) What is forward planning?
g) Name the four activity times associated with CPM analysis.
h) What are direct and indirect coststst?
i) What is slack of an event? Find the slack of an event if the latest allowable time and earliest expected time of an event is 5 and 7 days respectively. What conclusion you draw from this slack value?
j) Why at all updating is necessary in a project?

Q2 a) Compare the PERT and CPM networking techniques used in project management. (5)

b) Number the events of the network shown below using Fulkerson's rule. (5)

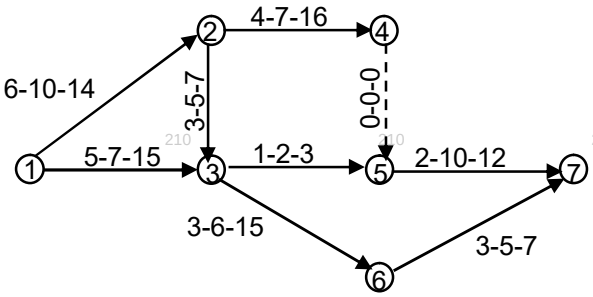


Q3 The durations and costs of various activities of the network shown in the figure below are given in the table below. The project overhead costs are Rs.5000 per week. Find the optimum duration and the cost associated with it. Also draw the least cost network. (10)



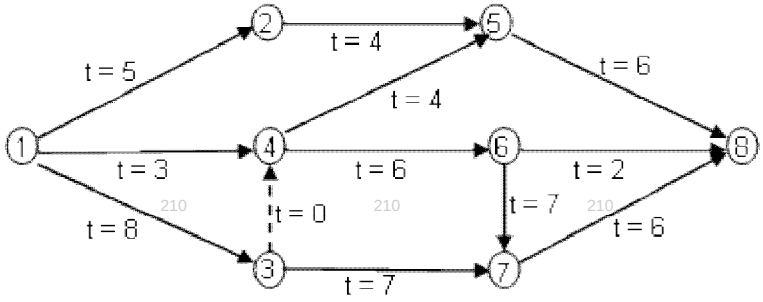
Activity	Normal duration (weeks)	Normal cost (Rs.)	Crash duration (weeks)	Crash cost (Rs.)
1-2	4	5000	2	12000
2-3	5	4000	2	7500
2-4	7	3600	5	6000
3-4	4	6000	2	10000

Q4 The network for a certain project is shown in the figure below. Determine the expected time for each activity. Find the earliest expected time and latest allowable occurrence time of each activity and the critical path. (10)



Q5 a) For the network shown in the figure below determine the total float for each activity and show the critical path. (5)

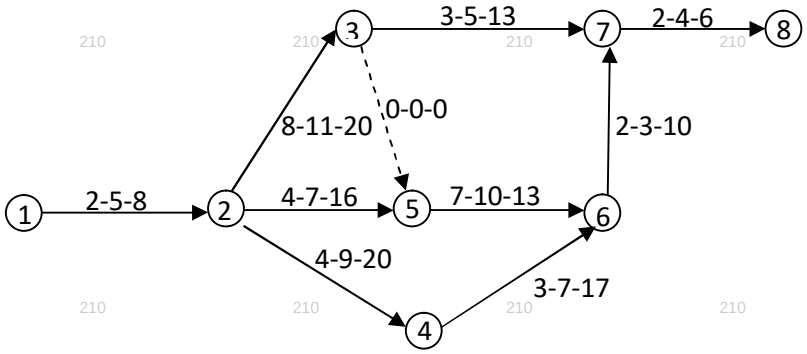
b) Also determine the free float and independent float for each activity. (5)



Q6 a) Discuss about the limitations bar charts and their remedial measures. (5)

b) Discuss about the rules for provision of dummies (5)

Q7 A construction company has to submit a bid for the construction of a new apartment building. The PERT network along with the three time estimate (in week) for each activity of the project is shown in the figure below. Determine the critical path and its standard deviation.Probability of completing the work in 34 weeks. (10)



Q8 Write short notes on any two (5 x 2)

a) Networking rules
b) Graphical guidelines of network
c) Floats
d) Gantt chart