MANIPAL ACADEMY OF HIGHER EDUCATION

FIFTH/EIGHTH SEMESTER B. ARCH. DEGREE EXAMINATION – JAN/FEB 2018

SUBJECT: ARC-14-307: PROJECT MANAGEMENT (2014 SCHEME)
        ARC 406.2 : PROJECT MANAGEMENT & VALUATION (2010 SCHEME)

Monday, January 29, 2018

Time: 14:00 – 17:00 Hrs.   Max. Marks: 50

✍ **Answer any FIVE full questions.**

1A.   Briefly explain any four areas of project management framework.

1B.   Mention any three traits of good project managers.

1C.   Explain project management constraints.

(4+3+3 = 10 marks)

2A.   What is a network? What are the different types of network scheduling? Give examples.

2B.   Explain with a network the dual role, burst and merge events.

2C.   Draw a neat network with the following relationship:

| Activity	Predecessor	Activity	Predecessor
A	-	I	D
B	-	J	E, I
C	-	K	J
D	-	L	D
E	C	M	E, I, L
F	A	N	J
G	A, B, C	O	H, K
H	F, G, C		

(3+3+4 = 10 marks)

3A.   What are the three estimates needed for PERT analysis? How would you use these estimates to compute the expected activity time and the variance in activity time?

3B.   A construction project consists of the following activities with their expected times. Calculate the slack time for each event and identify critical path and total project duration.

Activity	Duration in days	Activity	Duration in days
0 – 1	3	1 – 4	10
1 – 3	16	3 – 4	5
1 – 2	6	4 – 5	3
2 - 3	8		

(5+5 = 10 marks)

4. The network of a project with the estimated durations of various activities is shown below. Determine the following.

4A. Earliest and latest activity times

4B. Total float for each activity

4C. Critical path for the network

4D. Total duration of the project
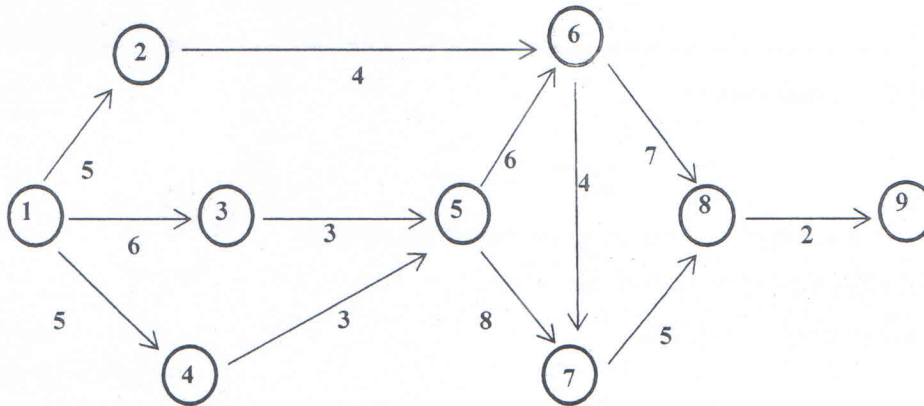
(10 marks)

5A. The table below gives the data for the duration and costs of each activity of a project network shown below. The indirect cost of the project is ₹ 700/week. Determine the optimum duration of project and the corresponding minimum cost. Draw the time scaled version of the network.

Activity	Normal Duration (weeks)	Normal Cost ₹	Crash Duration (week)	Crash Cost ₹
1-2	18	16,000	12	19,000
2-3	10	10,000	6	11,500

5B. Explain indirect cost time curve.

(8+2 = 10 marks)

6A. Explain in brief about project closing.

6B. What are the areas to be considered for closing of project?

6C. Explain in brief cost control.

(3+4+3 = 10 marks)