Reg. No.										

MANIPAL ACADEMY OF HIGHER EDUCATION

FIFTH/EIGHTH SEMESTER B. ARCH. DEGREE EXAMINATION – JAN/FEB 2019

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

Saturday, February 09, 2019

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

- **Answer any FIVE full questions.**
- **Any missing data can be suitably assumed.**

1A. Who is a Project Manager? List any four responsibilities of a Project Manager.

1B. State and explain any five knowledge Areas of Project management briefly.

(1+4+5 = 10 marks)

2A. Briefly explain the stages in a Construction Project.

2B. With the help of a graph show a project Life Cycle curve.

2C. Explain how Quality is a critical Project Management Constraint.

(4+3+3 = 10 marks)

3A. Define 'event' and 'activity'. Differentiate clearly between the two.

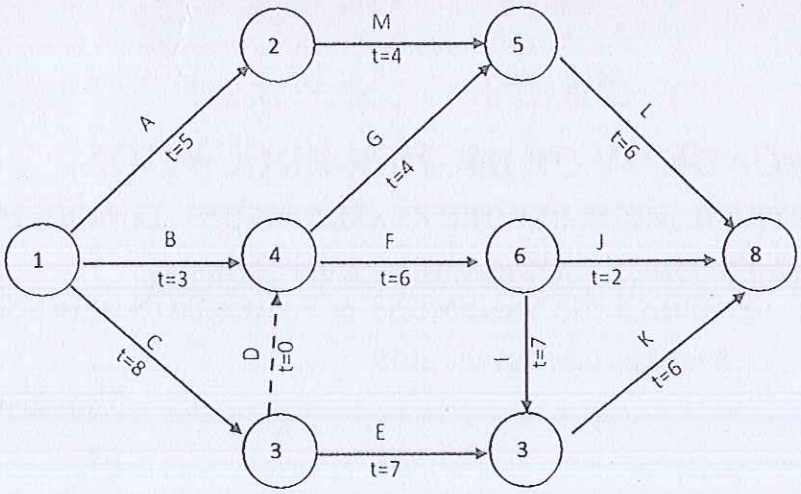
3B. What do you understand by 'dummy'? What are its uses?

3C. A construction project consists of 12 activities. The predecessor relationships are identified by their node numbers as indicated in the table below. Draw the network diagram.

Activity	Identification	Activity	Identification
A	(1,2)	G	(4,6)
B	(2,4)	H	(5,6)
C	(2,3)	I	(5,7)
D	(2,7)	J	(7,8)
E	(3,4)	K	(6,8)
F	(3,5)	L	(8,9)

(3+2+5 = 10 marks)

4. The network of a certain project is shown in the following figure, with the estimated durations of various activities. Determine the following:
   i) Earliest event time and latest event time
   ii) Earliest and latest start and finish times of each activity
   iii) Total and free floats for each activity
   iv) Critical path for the network



(3+3+3+1 = 10 marks)

5A. Explain the importance of cost control in project management.

5B. Explain four types of relationships in Precedence network.

5C. Explain with neat diagram the direct cost curve.

(3+4+3 = 10 marks)

6A. Define cost slope.

6B. The durations and costs of project activities are given below. The indirect cost of the project is ₹ 500/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 ₹
10-20	18	16,000	12	19,000
20-30	10	10,000	6	11,500
30-40	12	8000	10	12,000

(3+7 = 10 marks)