Reg. No.										

MANIPAL UNIVERSITY

SECOND SEMESTER EXECUTIVE M.ARCH. (ADVANCED DESIGN)/FOURTH SEMESTER M.ARCH (URBAN DESIGN & DEVELOPMENT) DEGREE EXAMINATION – JUNE 2016

SUBJECT: PROJECT MANAGEMENT/PROJECT MANAGEMENT FOR URBAN DEVELOPMENT (ARM 604-E/ARM 726)

Saturday, June 04, 2016

Time: 10:00 – 13:00 Hrs. Max. Marks: 50

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

1A. The relationship and the duration in units are given below. Calculate the Earliest Expected Time and Latest Allowable Occurrence Time. Determine the critical path for the network.

i) Activities A, B & C are concurrent activities;
ii) Activity D follows A;
iii) Activity E & G follows B;
iv) Activity I cannot start until D & E are completed;
v) Activities F & H succeeds G;
vi) Activity H precedes K;
vii) Activity J cannot start until activities F & G are done;'
viii) Activity M succeeds I & J;
ix) Activity K preceeds L;
x) M & L are the last activities.

A=3; B=4; C=6; D=4; E=2; F=8; G=3; H=4; I=6; J=7; K=3; L=6; M=4

1B. How would you calculate the variability of project duration and probability of completion at a specified time?

(7+3 = 10 marks)

2A. What is critical path? What does criticality mean and what are the types of critical activities?

2B. The table below gives the data of the activities of a project. The indirect cost of the project is ₹ 200/day. Determine the optimum duration of project and the corresponding minimum cost.

Activity	*Normal duration (days)*	*Normal cost (₹)*	*Crash duration (days)*	*Crash cost (₹)*
1 – 2	8	8000	6	9500
2 – 3	4	5000	3	5500

(4+6 = 10 marks)

3A. The project consists of the following activities and their time estimates are shown below:

Activity	*Time (in weeks)*		
	t_o	t_m	t_p
(1-2)	*4*	*6*	*10*
(1-3)	*3*	*7*	*12*
(1-4)	*5*	*6*	*9*
(1-7)	*2*	*4*	*6*
(2-4)	*6*	*10*	*20*
(2-6)	*3*	*4*	*7*
(2-7)	*5*	*9*	*15*
(3-4)	*3*	*7*	*12*
(4-5)	*2*	*4*	*5*
(5-6)	*1*	*3*	*6*
(3-7)	*2*	*5*	*8*
(6-7)	*1*	*2*	*6*

i) Draw the network diagram

ii) Calculate floats

iii) Determine the critical path

3B. Define scheduling. List the advantages of scheduling.

(6+4 = 10 marks)

4A. Explain the project life cycle process.

4B. Briefly explain the network techniques.

4C. Explain the types of events.

(5+3+2 = 10 marks)

5A. Explain the major components in a feasibility plan.

5B. Explain how entrepreneurship has influenced economic development and productivity.

(4+6 = 10 marks)

6A. What are the major changes that create opportunities for entrepreneurs?

6B. Describe briefly how innovation is important as a dimension of entrepreneurship.

(5+5 = 10 marks)