

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -1 EXAMINATION- September 2016

M.Tech 1st Semester

COURSE CODE: 11M1WCE114

MAX. MARKS: 15

COURSE NAME: Modeling Simulation and Computer application

COURSE CREDITS: 03

MAX. TIME: 1Hr

Note: All questions are compulsory. Carrying of mobile phone during examinations will be treated as case of unfair means.

Q1. Determine the deflection under the load using the finite difference method by subdividing the length of the beam into 2 and 4 regions. The beam is simply supported at the ends with an udl acting over entire length. (5)

Q2. A uniform strut of length l and flexural rigidity EI is subjected to critical load P . Dividing the length into 2 and 4 regions, compute the critical load in terms of l and EI (5)



Q3. 3 activities implementable in parallel have the following time cost relationship for direct cost component in each case. What would be the feasible range of total direct cost component for three activities together?

Activity	Duration (Days)	Cost(Rs)
	10(normal)	800
A	9	900
	8	1000
	11(normal)	1200
B	10	1350
	9	1500
	7(normal)	500
C	6	700
	5	900