JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -2 EXAMINATION- April 2018

M. Tech.-II/B. Tech.-VIII Semester

COURSE CODE: 12M1WCE214   MAX. MARKS: 25

COURSE NAME: THEORY OF PLATES AND SHELLS

COURSE CREDITS: 03   MAX. TIME: 1:30 Hrs

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

1. Derive the differential equation of plates under combined action of uniform lateral load and uniform tension.   [7]   CO-2

2. Find the maximum deflection of rectangular plate with simply supported edges under uniform lateral load and uniform tension.   [7]   CO-2

3. Derive the equation for deflection; bending moment and torsion moment in simply supported plate for sinusoidal load.   [7]   CO-3

4. (a) Differentiate between thin and thick plates.
   (b) Write the combinations of different boundary conditions in the analysis of plate.   [4]   CO-1