

Dr. G.2. Singh

Roll No:.....

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

MID TERM EXAMINATION, SUMMER SEMESTER - JUNE 2018

B. Tech.-VIII Semester

COURSE CODE: 12M1WCE214

MAX. MARKS: 50

COURSE NAME: THEORY OF PLATES AND SHELLS

COURSE CREDITS: 03

MAX. TIME: 2:00 Hrs

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

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1. Write the relation between curvature and slope of slightly bent plates. [10]
2. Derive the relations between bending moment and curvature in pure bending of plates. [10]
3. Derive the differential equation for cylindrical bending of plates. [10]
4. Derive the equation for deflection in cylindrical bending of uniformly loaded rectangular plates with simply supported edges. [10]
5. (a) Differentiate between thin and thick plates. [10]  
(b) Write the combinations of different boundary conditions in the analysis of plate.