

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -2 EXAMINATION- 2016

B.Tech 8th Sem/ M.Tech 2nd Sem

COURSE CODE: 12M1WCE214

MAX. MARKS: 25

COURSE NAME: THEORY OF PLATES AND SHELLS

COURSE CREDITS: 03

MAX. TIME: 1Hr 30 Min

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

Q1. Deduce the differential equation for a circular plate with hole at the center. (6)

Q2. Find the deflection at the center of a simply supported rectangular plate if it is subjected to Hydrostatic pressure of loading. Also find the relation in case of square plate. (5)

Q3. Find the deflection at the center of a simply supported rectangular plate under a load in form of a triangular Prism. (7)

Q4. Consider simply supported rectangular plates under sinusoidal Load. Deduce differential equation to find the deflection, bending moments and shear force and also find their maximum values. (7)