JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -2 EXAMINATION- 2017

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)**