

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -1 EXAMINATION-SEP-2018

M.Tech - Ist Semester

COURSE CODE:11M1WCE111

MAX. MARKS:15

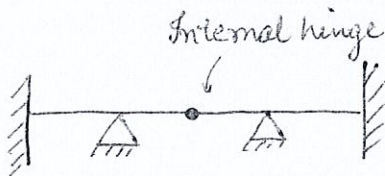
COURSE NAME: Advanced Structural Analysis

COURSE CREDITS: 03

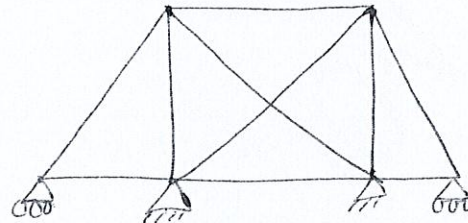
MAX. TIME: One Hour

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

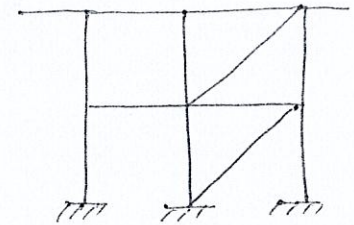
Q.1. Find the static and kinematic indeterminacy for the following structure. (2+2+2 = 6)



(i)

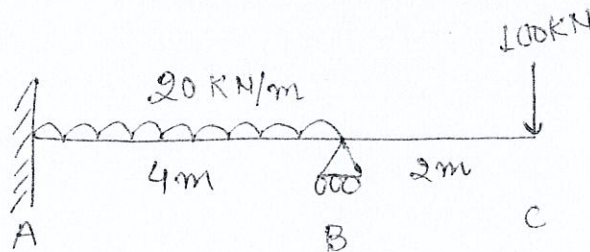


(ii)



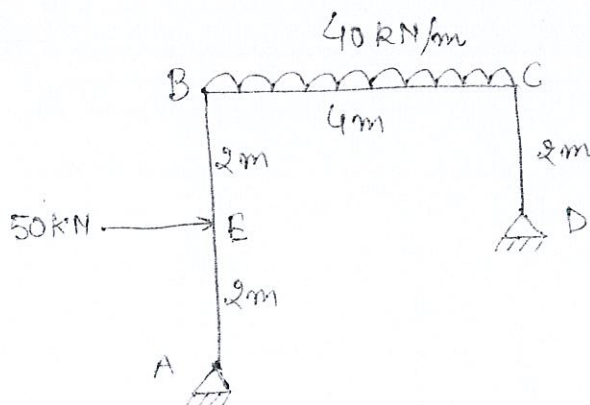
(iii)

Q.2. Solve the given beam by using FORCE METHOD. (4)



$E = 200 \text{ GPa}$
 $I = 40000 \text{ mm}^4$

Q.3. Solve the given frame by using FORCE METHOD. (5)



$E = 200 \text{ GPa}$
 $I = 40000 \text{ mm}^4$