



WALCHAND COLLEGE OF ENGINEERING

(Government Aided Autonomous Institute)

Visharambag, Sangli - 416415

First Year B.Tech. Group A (ELN, CSE, IT)

MSE, ODD SEMESTER, AY 2022-23

Engineering Mechanics (6CV101)



MSE

PRN: _____

Day & Date: Thursday, 12/01/2023

Time: 10.30 am to 12.00 noon

Max Marks: 30

IMP: Verify that you have received question papers with correct course code, branch etc.

Instructions

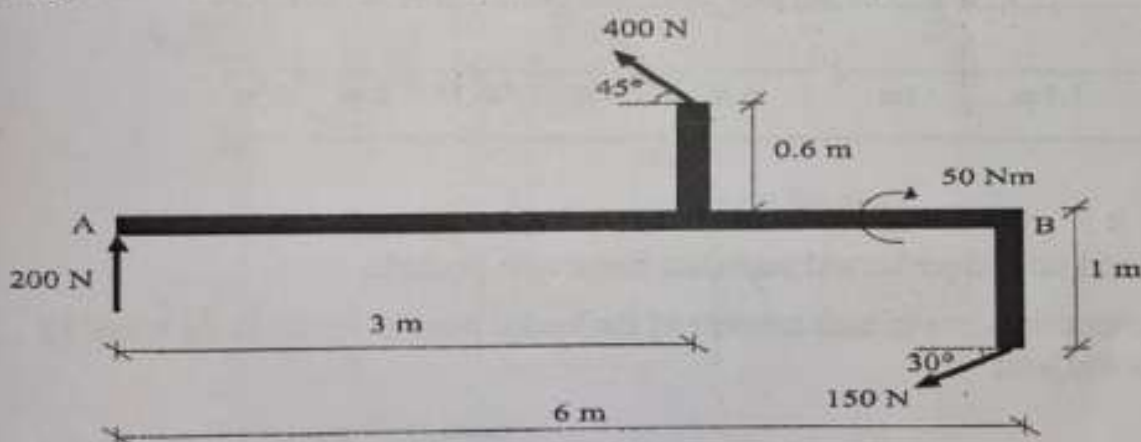
- All questions are compulsory.
- Writing question number on answer book is compulsory otherwise answers may not be assessed.
- Assume suitable data wherever necessary.
- Figures to the right of question text indicate full marks.
- Mobile phones, smart gadgets and programmable calculators are strictly prohibited.
- Except PRN anything else writing on question paper is not allowed.
- Exchange/Sharing of stationery, calculator etc. not allowed.

Text on the right of marks indicates course outcomes (Only for faculty use)

Marks

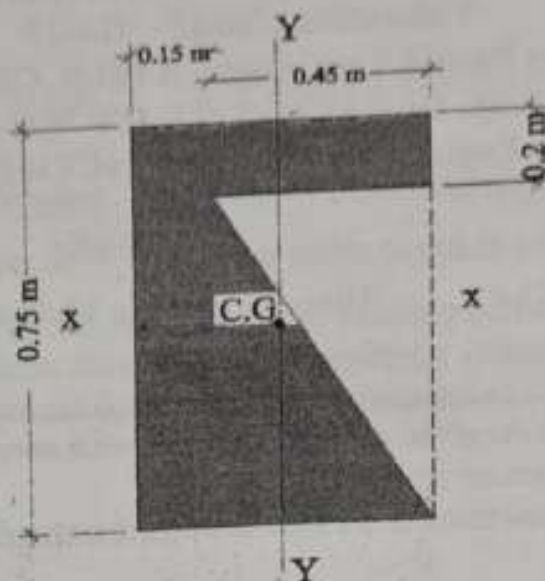
- Q1 A) A bracket is subjected to three forces and a couple as shown in fig. Determine magnitude and direction of resultant.

CO1

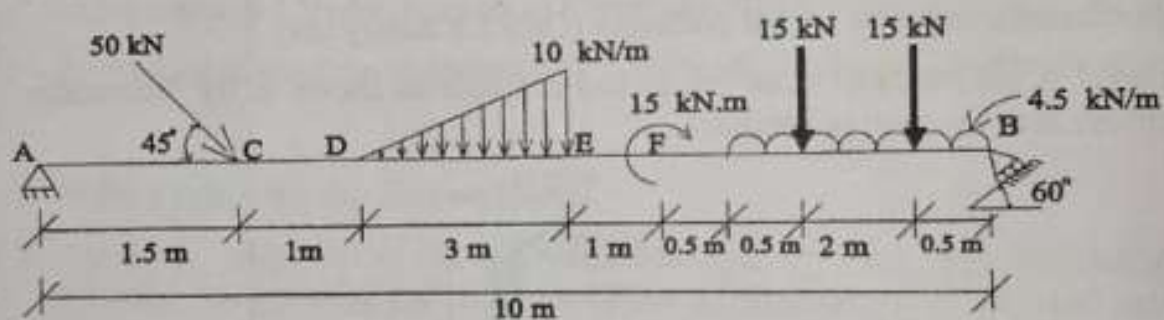


4

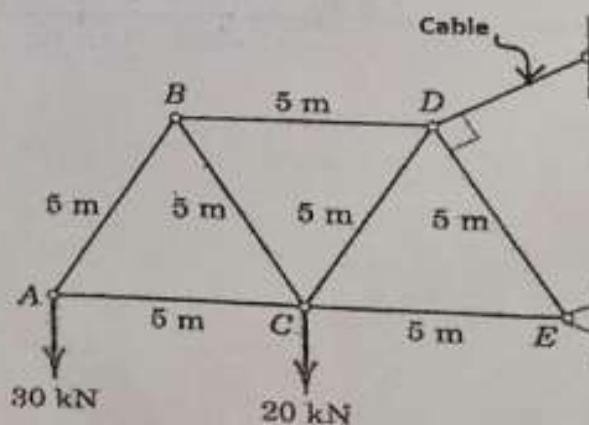
- B) Determine the moment of inertia about the centroidal x and y axis of the lamina shown in fig.



- Q2 A) Explain different types of loads and supports for a beam with neat sketch.
B) Compute the support reactions at support at A and B for the beam shown below.



- Q3 A) State and explain perfect and imperfect frame with example.
B) Determine the force in each member of the loaded truss as shown in fig below by method of joint



.....End of question paper