Roll No. ....

Total No. of Questions : 8]　　[Total No. of Printed Pages : 3

EY-87

B.Tech. IInd Semester (CSE, IT. & Elect.)

Examination, 2023-24

Basic Civil Engineering &

Engineering Mechanics

Paper - BE-204

Time : 3 Hours]　　　　[Maximum Marks : 60

Note :- Attempt any **five** quesitons.

1. (a) Explain the concept of forces in engineering mechanics, highlighting different types of forces and their effects.
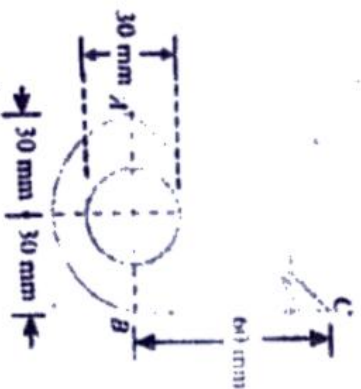
EY–87　　　　　(1)　　　　　P.T.O.

(1

(b) Discuss the laws of friction and their significance in statics and dynamics.

2. (a) Explain the principles of power transmission in mechanical systems.

(b) State and prove parallelogram law of forces.

3. Find the moment of inertia of the lamina with a circular hole of 30 mm diameter about the axis AB as shown in Fig.

(b) Explain how the choice of construction material the overall durability of a structure.

5. (a) Explain the significance of foundations in the construction process.

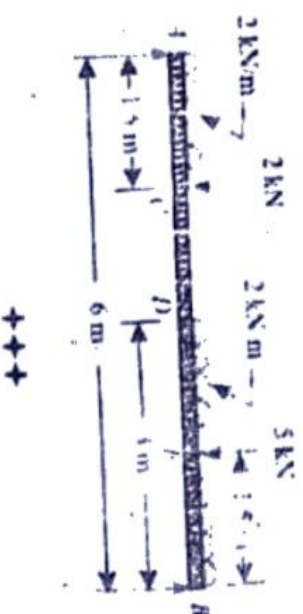(b) What are the accessories used in chain surveying.

6. (a) Discuss the types of surveying methods and their applications.

(b) Explain the concept of leveling in surveying.

7. (a) State the properties of cement concrete.

(b) Illustrate the Uses of Stones

8. Draw the Shear force diagrams and Bending moment diagrams.

4. (a) List and explain the different types of building construction materils

+++