

1. Uniform
 2. Regular Class attain
-



Ref. No. : ...AP.ITA/15/10/121

Date : ...25/01/2021...

ONLINE CLASSES ROUTINE

TRADE: FITTER & ELECTRICIAN			YEAR: 1st
DAY/TIME	10:00am - 11:00am	11:00am - 12:00pm	12:00pm - 01:00pm
MONDAY	TP	TP	W.C & Sc
TUESDAY	ED	TT	TT
WEDNESDAY	W.C & Sc	ED	ED
THURSDAY	TP	TP	TT
FRIDAY	ASSIGNMENT	ASSIGNMENT	ASSIGNMENT

TRADE: FITTER & ELECTRICIAN			YEAR: 2nd
DAY/TIME	10:00am - 11:00am	11:00am - 12:00pm	12:00pm - 01:00pm
MONDAY	ED	TT	TT
TUESDAY	Assignment	Assignment	Assignment
WEDNESDAY	TP	TP	TT
THURSDAY	ED	W.C & Sc	W.C & Sc
FRIDAY	TP	TP	W.C & Sc

Sup
 PRINCIPAL
 ATULIA PRIVATE ITI
 Atulia, Jessure, Habra
 North 24 Pgs., Pin 742233



Stress & Strain

Electrician

Centre gravity

Stress =

$$\frac{F}{A}$$

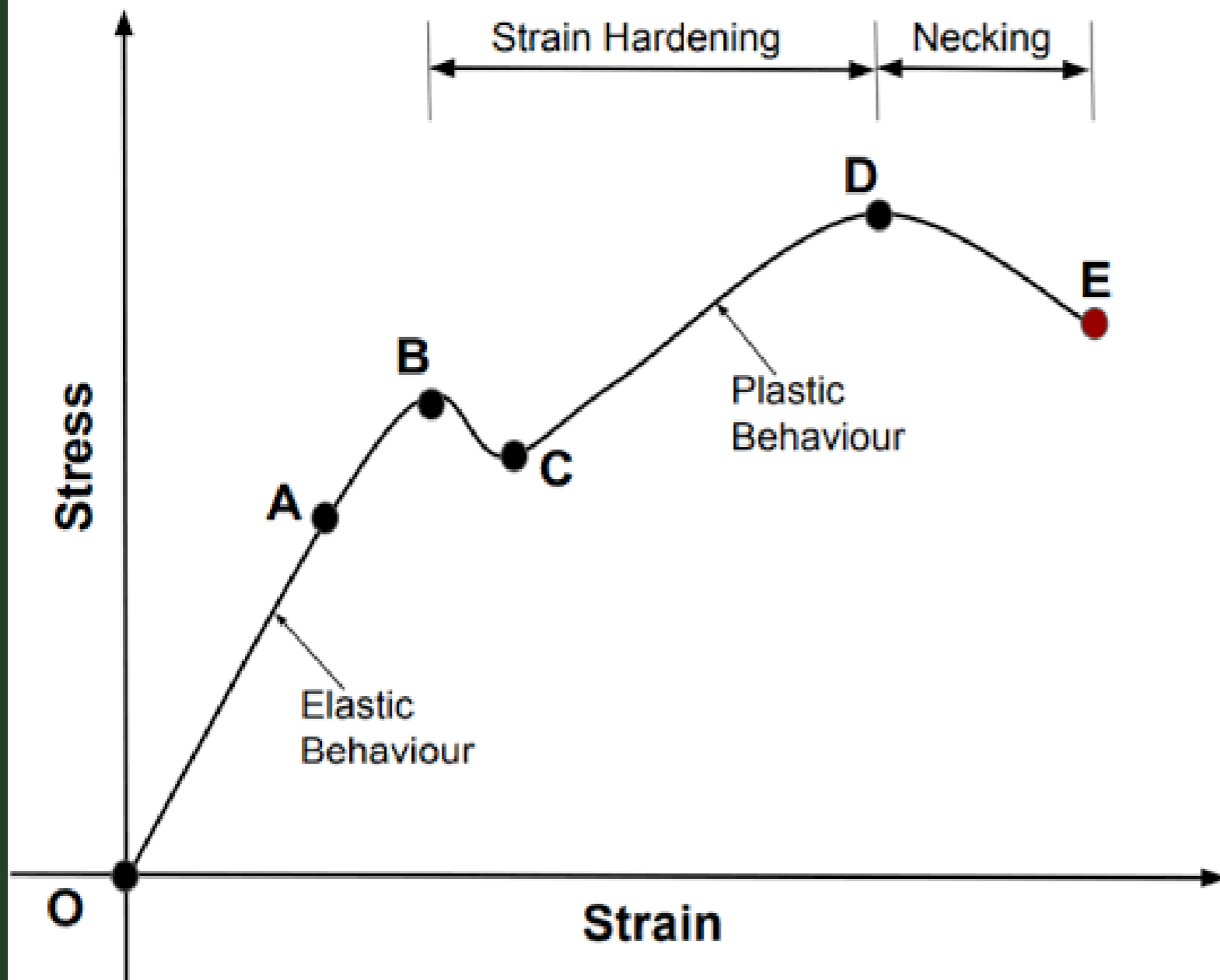
σ



$$\frac{N}{m^2}$$



$$\frac{\text{dyn}^2}{\text{cm}^2}$$



OA : Proportional Limit
B : Upper Yield Stress Point
C : Lower Yield Stress Point
D : Ultimate Stress Point
E : Fracture

$$\text{Strain} = \frac{\delta L}{L}$$

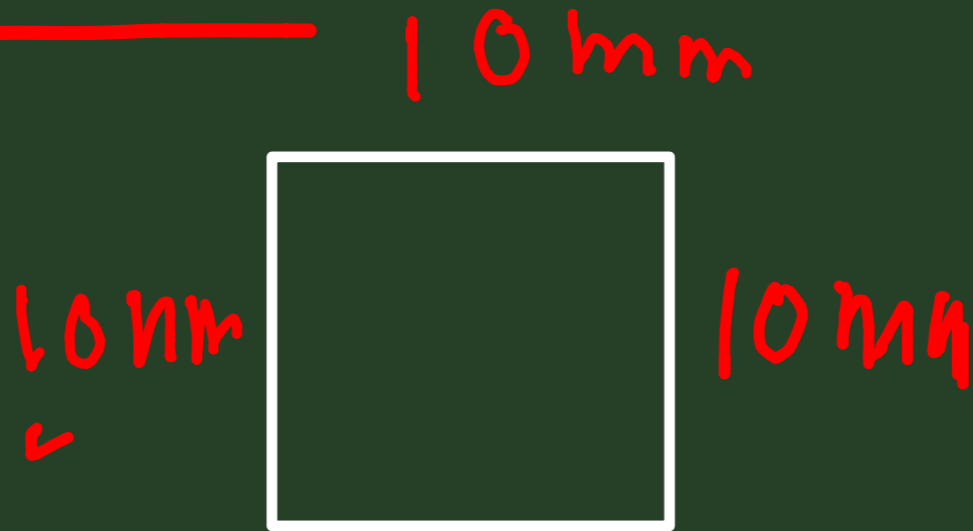
Unitless
Hook's Law

$$\sigma \propto e$$

$$\delta L = \frac{FL}{AE} \quad \checkmark$$

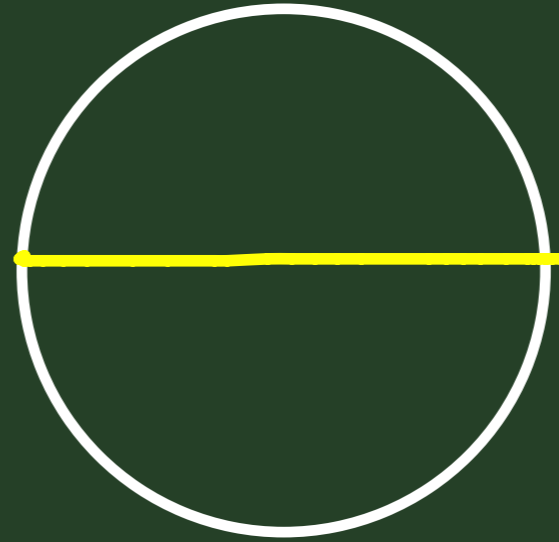
A SQUARE ROD OF 10MM SIDE IS
TESTED FOR A TENSILE LOAD
OF 1016KG. CALCULATE TENSILE
STRESS

$$A = 10^2 \\ = 100 \text{ mm}^2$$



$$\sigma = \frac{F}{A} = \frac{1016 \text{ Kg}}{100 \text{ mm}^2} \\ = 10.16 \text{ Kg/mm}^2$$

AMS TIE BAR 3.5 CM
DIA IS UNDER A
STATE OF STRESS
WHICH CARRIES A
LOAD OF 6720 KG.
FIND THE STRESS?



$$D = 3.5 \text{ cm}$$

$$R = \frac{3.5}{2} \text{ cm}$$

$$A = \pi \times (3.5)^2$$

$$A = 9.61 \text{ cm}^2$$

AMS TIE BAR 3.5 CM
DIA IS UNDER A
STATE OF STRESS
WHICH CARRIES A
LOAD OF 6720 KG.
FIND THE STRESS?

$$A = 9.61 \text{ cm}^2$$

$$\sigma = \frac{F}{A}$$

$$= \frac{6720 \text{ Kg}}{9.61 \text{ cm}^2}$$

$$= 699.27 \text{ Kg/cm}^2$$

1

