



College of Engineering & Technology

Department: Mechanical Engineering

Marks: 30

Lecturer: Dr. Rola Afify

Time: 2:30 – 3:30

Course Code: ME356

Date: 31/12/2013

Name:

Answer the following questions:

Question one (10 marks)

A) Define:

i) Machine Design:

ii) Strength:

B) What are the general procedures in Machine Design?

Question two (20 marks)

A 30 mm diameter rod, shown in Fig.1, is subjected to a force of 20 kN and a moment of 30 N.m. Calculate the stresses at A and B. Also, use neat sketches to show these stresses.

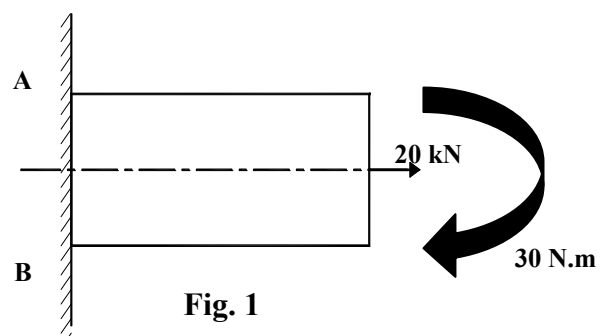


Fig. 1