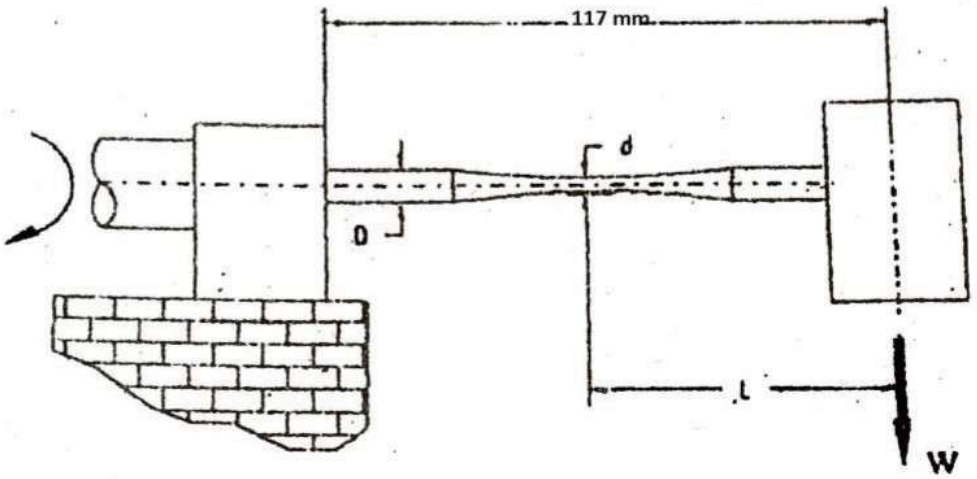
FATIGUE TEST

1) Read the theory of fatigue test in your notes.
2) Measure the dimensions of the specimen.
3) Set the center to zero and note the reading on the frequency clock.
4) Place the given weights.
5) Start the experiment and run until fracture.
6) Calculate moment (M), inertia (I), and stress (σ), by using given data.
7) Draw S-N curve.
8) Mark the important points on the S-N curve (e.g. Se, low and high cycle regions etc).

Use the following data for calculations:



D=6.75mm
d=3.8mm
L=105mm

No	W (g)	No. of cycles	stress(kg/mm^2)
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			

NOTE: The following should be included in your test reports:
1-Introducion
2-Theory of experiment
3-Calculations , test data, graphics with their explanations.
4-Discussion and conclusion.