

MECHANICAL ENGINEERING

1) Class S.Y. A -
 2) Batch Incharge Mr. S.S. Awale
 3) Expt. No. 1
 4) Title Experiment on Hardness Tester
 OBSERVATION TABLE ① Brinell Hardness Test.

$$BHN = \frac{2P}{\pi D(D - \sqrt{D^2 - d^2})}$$

Sl. No.	Material	Diameter of Indenter in mm (D)	Test load kg	Diameter of Indentation in mm (d)	BHN
1)	Cast Aluminium	1.58 mm	100	1.3	59.10
2)	Cast Brass	1.58 mm	100	1.1	98.38
3)	Mild Steel	1.58 mm	100	0.9	143.25
4)	Roller Copper	1.58 mm	100	1.4	47.54

Calculation:- ① Cast Aluminium

$$\begin{aligned} \text{Brinell hardness no.} &= \frac{2P}{\pi D(D - \sqrt{D^2 - d^2})} \\ &= \frac{2 \times 100}{3.14 \times 1.58 (1.58 - \sqrt{1.58^2 - 1.3^2})} \end{aligned}$$

$$BHN = 59.10 \text{ BHN.}$$

Roll No:- Pathan Sajidkhan Jamsherkhan.
 (2124)

[Signature]

DEPARTMENT (Degree)

Subject: mscm
 Date: 16/12/21
 Batch: A2

Roll No.	Name of Students	Signature	Remarks
21		AB	
22	Ankil Madavan	<i>[Signature]</i>	
23		AB	
24	Pathan Sajidkhan	<i>[Signature]</i>	
25	Mulla Arojchandani	<i>[Signature]</i>	
26	Patil Yashraj	<i>[Signature]</i>	
27	Rupar Manish Nitin	<i>[Signature]</i>	
28	Thorale Niranjan S	<i>[Signature]</i>	
29	Angade Aniket P	<i>[Signature]</i>	
30	Patil Prasanghel J.	<i>[Signature]</i>	
31	Patil Sumant S.	<i>[Signature]</i>	
32	Patil Shubham J.	<i>[Signature]</i>	
33	Patil Tushar S.	<i>[Signature]</i>	
34	Patil Santosh N	<i>[Signature]</i>	
35	Patil Yash S.	<i>[Signature]</i>	
36	Sankal Vithalgeeta	<i>[Signature]</i>	
37	Patil Aditya S	<i>[Signature]</i>	
38	Mali Prathamesh	<i>[Signature]</i>	
39	Shenkarle Vasant S	<i>[Signature]</i>	
40	Abhinav Jadhav	<i>[Signature]</i>	

Lab Assistant

Batch Incharge

H. O. D.