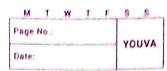
*	Design of Mochine elements Lab-4:
	Parts: Rutam S Rajhansa B22ME055.
	Flanges -> Grey-(ast-Iron -> sustain compression Yey -> Plain (arbon-stee) -> sustain shear Bolt -> Plain -1111
	Shaft -> Plain (arbon-Steel 30(8 -) Shear stress.
*	Now taking factor of safety.
	FOS: -> Flange, Hub -> (5) it sustains highest stress  Key-snaft-bolt -> (2.5)
V	$\int \sigma_{c} = 2\sigma_{y}t$ and $\begin{cases} z = 1, \sigma_{y}t \end{cases}$
	Out (Flange, Hub) = 200 mPg from  Out (Key shaft bolt) = 400 mPg Chard.
	(Out) = 200 = 40  mPg avow $5$
	$(6yt) = \frac{400}{2.5} = \frac{160  \text{m/a}}{2.5}$
	:. (OC) = 2×40=80 mg (Oc)(Cc) = 1×40 + pugl/Hub = 11 = 20 mg

$$954.92 \times 10^{3}$$
 250 = D=2d  
 $77 (D^{(1)}-d^{(1)})$  D/2. Empirical relation

$$\frac{3}{32 \times 954.92 \times 103}$$

$$\frac{32 \times 954.92 \times 103}{71 \times 20 \times 15}$$

$$\frac{1}{21 \times 20 \times 15} \times 10$$



	Date		ALL COLUMN OF THE PARTY OF
3/32.422 X10 => d=	31.85m	m	Bigging of the Committee of the Committe
	and the second s		
13 32 mm			
07 Y 41 1 W 8 Y 8 Y 8 Y 8 4 8 8 8 8 8 8 8 8 8 8 8 8	V		
	L=1.5)	(d	
D 2 64mm	47.72 49		
63.5			
10 C. C. O. J. 14	Al		
1122		7	
tf = d = 10.67	Ilmm.		
10.67			
Design of - Flange! T=	ariumfen	enceof	
hu	1b × Thickn	PSSX	
	hearstress	XP	3
1, = 934.92 \$10	land to proper consequence and the second		
T = 10+x	D)xtx x Yc	XP	
=1 4c = 954.92 X 21	1103	175.	46
TX (63.5)	2×14	10	67
00825 000			
1. ++= d/3 is safe	, =	16.49	
		- ((1) = (	20)
Marian Materials	S SE C	allow	
* Design of -Bolt:			
Design Of Both	XDXN		
	2		
=) P = 2T = 75°	12XX		
DN 4	<u> </u>		
	~ 1		
$= 2 = 8 \Gamma$ $= 0 \times 1 \times$	-) de46	<u></u>	
DNITE			
From empirical	relation a	1240,	m
From fuit.			

$$= 2 \cdot 159.64 = 12.63 \text{ mm}$$

**AVUOY** Date: 7 = 7.85 mm h -8 mm so + final dimensions. tf=1/mm dj=13mm d=32mm N=3  $0_1=96mm$ D=64mm 248mm b=15mm D2 = 128mm. L h = 8mm.