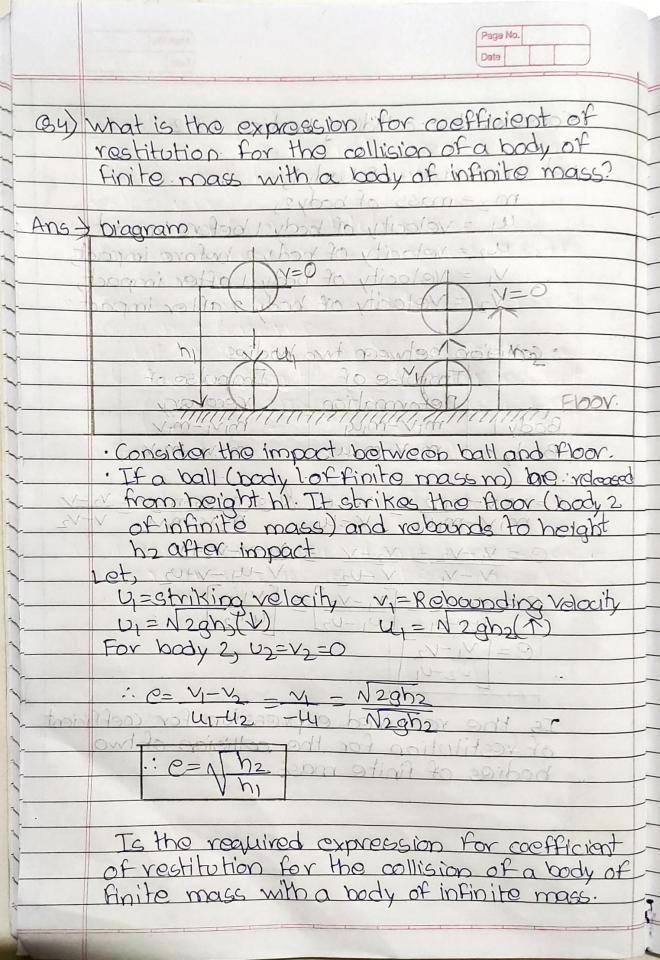
	Page Mo. Date
	Name: - Shreering Mhatre
	dass: Mechanics Practical
	Rollno: 111056 lordaes towit out si trou (15)
	Division: K3
1.6	Submitted to Aronabh Pandey Sir well sent
70	the 9th no evolusing processes on the oth
الرموا	I for a very short interval of time is a
ono	190 avolos Experiment No-6 formalist
	to soil got an privile are lying on the line of
0	impact and their velocities are allinear
	o betermination of coefficient of
	Restitution between two
	colliding bodies
atal	(62) what is the reservation of linear normal
,	1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
1.	asp matagnom vomil to mitovisico com
didag	to got doing of principal solling to mail
MON	il all bolata and an
2	a Hagaran lotat off sitort stock of a
	troters enlaner metry a
20	(C3) what is the expression for afficient
	weetherfin for the cellision of make
	Coanal Odigo 20
	morphia CX 2014
top.	
-	
_	

The same of the sa

	Page No. Date	
		1
*	Questions - what promote a series	-
	claus: Merhapical Provided	-
(01)	what is the direct central impact?	1
1	Extraoprica .	-
Ans	Collision of two bodies in which each body	-
	exerts tremendous pressure on the other	-
	for a very short interval of time is called	-
	as impact. when the mass contexs of the	-
	colliding bodies are lying on the line of impact and their velocities are collinear to	-
	the line of impact then it is called as	-
	direct contral impact oil 1698	
	a sibop', palbillo	
0.2	what is the consorvation of linear momentum?	
Ans	Conservation of linear momentum, general	
-	law of physics according to which the augntity	
-	called momentum that dranacterizes motion	
	never changes in an isolated collection	
	of objects; that is, the total momentum of	
	a system remains constant.	
(0,3)	what is the expression for operficient of	
	restrution for the collision of how hading	
	of finite mass?	
Ans -	(1) Diagram	
	Before impact During impact After impact	
		_
	(m_1) (m_2) (m_1) (m_2)	_
V		_
	a az (common velocity) v vz	_

	Page Mo.
	(Delib)
	Consider the callidian had a
1	Consider two calliding bodies 18/2: 1000 (10)
1	et mit roger of had it
-	let mi = mass of body 1/2 von aline
	$m_2 = mass of body 2$
	4 = velocity of body I before impacts
	U2 = velocity of body 2 before impact
	V1 = Velocity of body 1 after impact,
1	V2 = Velocity of body 2 after impact
-	
	· collision between two bodies
1	Impulse of Impulse of
1000	Deformation recovery
	Body 1 miv-min mivi-miv
-200	Body 2 / m2 V-m2 42 m2 V2-m2 V
	: Fa ball (mady lost fighter mass m) lore:
1540	e=m,v-m,v = v,-u = & c=m,v,+m,v+v-v
top	m1v-m1vp v-4 m2v-m2v2 v-v2
	C= 4-12- 12-V = M-V-V2+V
	V-V, V-U2 V-U4-V+U2 +01
tion	N 8 = N1 - V2 = N1 - V2 = N V2 il linde = U
	(1) 12-U1-U2 W1/2/10/1= (1)
	C=[V1-V2] 0= N=0 5 1/200 vol
	U2-U1
	CODS N - N - N - N - N - N
	Is the required expression for coefficient of restitution for the collision of two
	of restitution for the collision of two
	bodies of finite mass.sd
	; (AV
ton	Tetho realised expression for coff
A VI	of restitution for the collision of a to
	on oxidaito what a this soon oxidis



	Page Mo. Date
05)	what is the difference between elastic,
6V	semi-elastic & plastic impact?
	andayor of all some many the property
ans >	DElastic impact - Wylnolov
i)	The two bodies separate after the impact
ii)	coefficient of restitution e= 1000000
iii)	Linear momentum is conserved (militimus=mi
han	1 th Viting Vail of soot topics as a voit in
iv)	Kinetic energy is conserved and it
mot	Kinetic energy is conserved (KE of the system) - (KE of the system) (before impact) - (after impact).
1	Coefore impact) Cafter impact).
15M	2 muz + 1 m2122) = (1 mx2 + 1 m2 v22)
	Recovery is 100% and the two bodies regain
	their original shape and size.
0	00/x(sl-1)=yprom of 200/01
	Semi-elastic Impact-
3	The two bodies separate after the impact.
	Coefficient of restitution varies between
2.1	zero and one, o(e().
- iii)	linear momentum is conserved (m, 4 tm, 2)=
	m14+m21/2).
N)	Kinetic Energy of system is not conserved.
	(K.E. of the system) (K.E. of the system)
	(before impact)/(after impact)
	$\left(\frac{1}{2}m_{1}v_{1}^{2}+\frac{1}{2}m_{2}v_{2}^{2}\right)\left(\frac{1}{2}m_{1}v_{1}^{2}+\frac{1}{2}m_{2}v_{2}^{2}\right)$
	Energy last in impact = (TI-T2)
	9/0 loss in energy = (T_1 - T_2) x 100
V).	The recovery is partial and there is same
*	permanent damage of the bodies.

		Page No. Date
1		
-	(3)	Plastic Impact- sons value and a tray a
,	i)	The two bodies do not separate after the
1		impact but they move with a common
1		velocity (v) topqui shapelles
1	-11	Coefficient of vestitution e=0, 1 and
1	iii)	linear momentum is conserved (militally)
1	400-	= (mitm)) vive and si and general vos vis (in
1	iv)	There is a great loss of kinetic Energy and
~		it is not conserved and it was stephen
~	- (0)	(K.E of the system) (K.F of the System) before impact) (after impact)
~		before impact / after impact
1	-	(1 m/3 + 1 m202)) (1 m ×2+ 1 m2×2)
1		2 2 1 6
1	ans	Energy lost in impact = (TiTz)
1		Classes in access 5/T T
1		$^{\circ}/_{\circ} \log \ln \operatorname{energy} = \left(\underline{T_1} - \underline{T_2} \right) \times \log $
1	-40	The verever is martial and there is some
1		The recover is partial and there is some permanent damage on the colliding bodies.
1		12820 and me 0685
1		iii) i rear morrowtum is conserved (mytheus
1		mily Track).
1		White his Energy of gystem is not consens
1		(KIE OF the Cytero) / KIE OF the cycle
1		thought sollo / Lorgerieveled)
1	/-	Nort 1 5 Mar [] ((5 8 3 m [1 5 Mar [)
1		
1		(J-11) = togget at tool yours
1		00/x (1-1) - yprono q' 20/010
1		
1	900	1) the recovery is partial and there is su
1		permanent dances of the bodies.
1		
1		