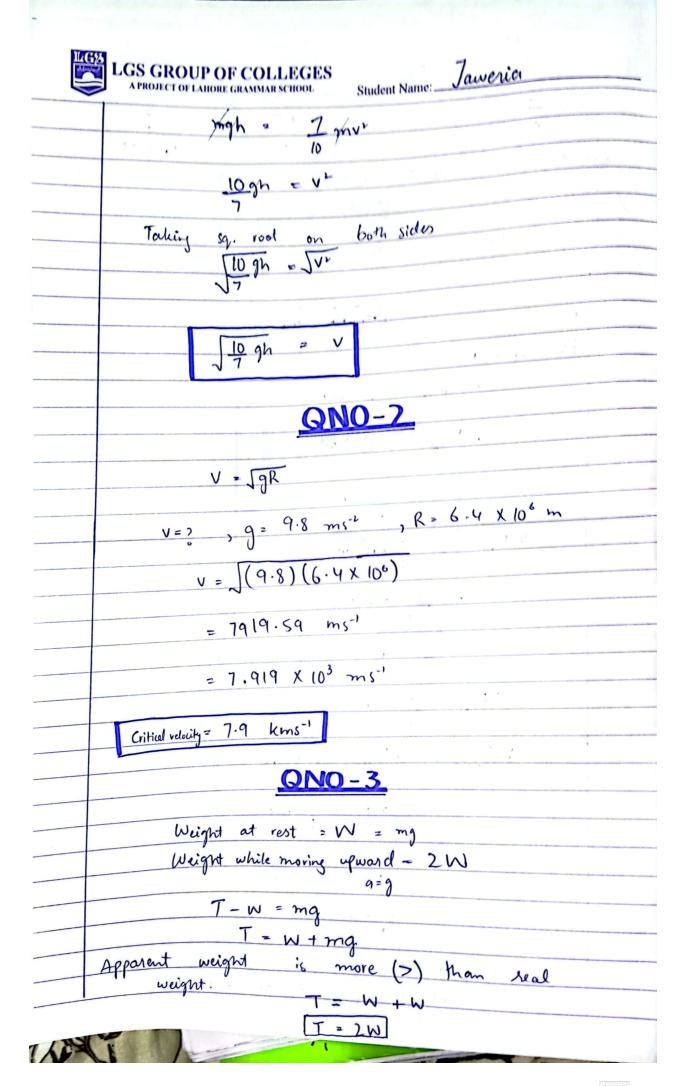
LGS CD
LGS GROUP OF COLLEGES  Name: Jawerica  Subject: Physics Class 11 th 1
Subject: Physics Class: 11 Roll No. 3
2 C C C C C C C C C C C C C C C C C C C
QNO-1
× 81
K.E linear 2 1 mv <sup>2</sup>
K.E rot = 1 Iw2
I = 2 mr <sup>2</sup>
$K.E_{rot} = \frac{1}{2} \left( \frac{2}{5} mr^{2} \right) \omega^{2}$
= 2 mr²w²
$= \int mr^2 \omega^2 \qquad " V^2 = r^2 \omega^2$
K.Erst = 1 mv2
K.E. total = K.E. Not
$\frac{2 \sqrt{mv^2 + 1}}{2} mv^2$
= 5+2m² = 7m² 10 10
2 7 mv <sup>2</sup>
and the second s
According to law of conservation of angular momentum P.E at top . K.E at bottom
·



## QN0-4



V= 1.01 kms-1

R= 390400 km

T= ZXR

= 2 x 3.14 x 390400

LOI

= 2427437.624 5

Converting sec into days 2427437

60×60 ×24

= 28 days

1440

QNO-5

1= R+h

1-R = h

42300 - 6400 = h

35900 km = h

h= 36000 km

S= 2.50 m

0 = 6.6 × 10-9 rad

S = r0

	Y = 2.50
	Y = 2.50 6.6 X 10 <sup>-9</sup>
	10.1 V
	270707070
	= 3787878.8 - ODNOFE = 9
	Y = 3.8 1/158
	3 0 X 10° m
	$2\pi S = T$
7	QNO:7
	123.85 XID8 m
	R = 1.74 × 10° m
	i roy diament
	Lo 27
	· · · · · · · · · · · · · · · · · · ·
	E. 7
	For orbital motion Io 2 mr <sup>2</sup>
	For orbital motion $Io = mr^2$ For spin motion $Is = 2 mR^2$
	Lo = IoW
	Ls Isw
	$\frac{L_0 = \kappa r^2}{4 \kappa^2}$
	5,2
	$= \frac{5 r^2}{2}$
	2 R <sup>2</sup>
	$= 5(3.85 \times 10^8)^2$
	2(1.74×106)2
	= 7.4 1125 x 1017 = 1.22395 x 1212-11
	$\frac{2.7.91125 \times 10^{17}}{6.0552 \times 10^{12}} = 1.22395 \times 10^{17-12}$
	Lo = 1.22395 X 105
	LS