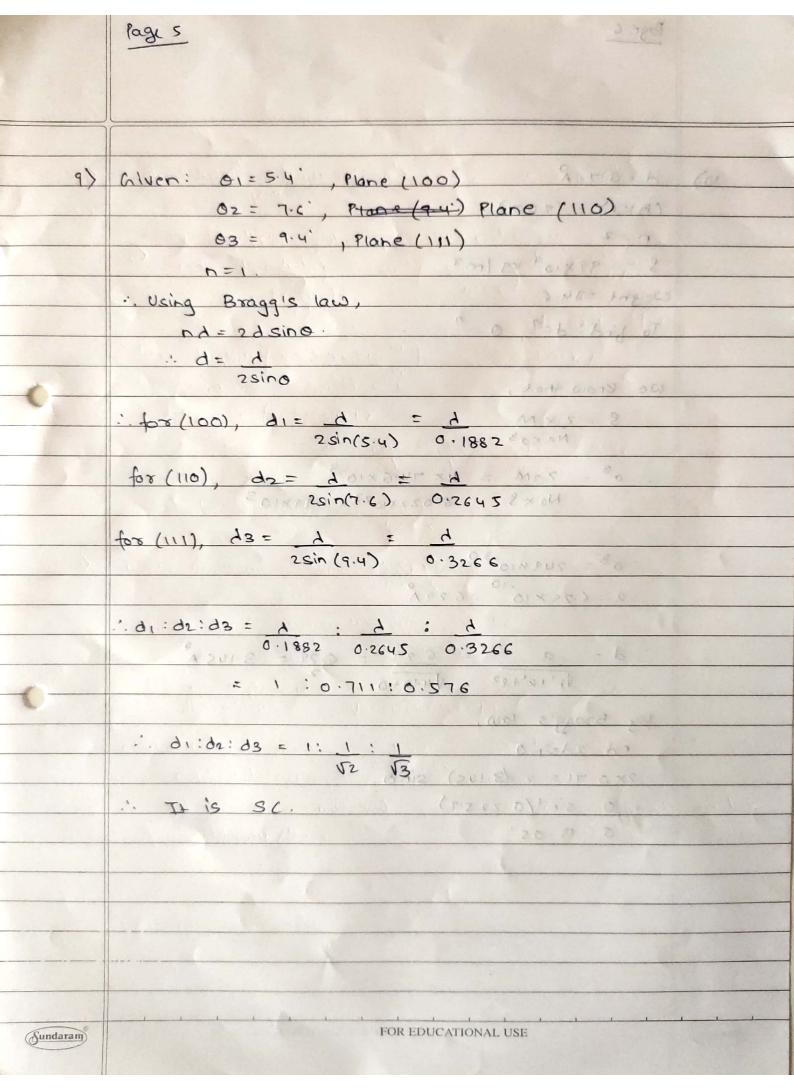
	\$285F
	SAP ID - 60004200132
	Nome- Ayush Jain
03/04/2021	Engineering Physics
- Tanker S	126 yours tradery and 120 938 8 6 60
2>	n=1, 01=3:4:11 0 10
-	12=2, 02=? (wol 2/pros)
	1 0 mg 16 mg/s = 1 Am
	We know, sara ormansary har
	nd= 2dsino APPP 0 h
	onlabe har -
1 × 53	nide = zdsino i - ci)
4	nzd = zdainoz - (2)
	(1) = (2)
	note a sino i
	nz sinoz
	$\frac{1}{2} = \sin(3.4)$ $\frac{1}{2} \sin \theta = \sin(3.4)$
	Sin 0 2
	$sine_2 = 2sin3.4$
	02 = sint (25in3:4) 08 0 (111)
	02= 6.81
	to st word ale
	anishe ha
3)	n=1, 0=21.7' (08) nichae a dix 21111
	A=1.54Å
	10 fino. a:
	nd = 2 deine
	1 x1.54 x10 10 = 2x d x sin(21.7)
	$2 \sin(21.7)$
	2 Sin (21.7)
	d = 2.083 Å
	. Here, dea proposed of since planes are porralled.
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	Pagez	
		THE LAY ME
	3.7.2544	prison gard recelulate
4>	d=2.82A ,n=1	For highest order diffraction,
	0, =10.	cin a must be maximum.
	By Bragg's law.	8 0 00
	nd=2 dsin 0	: Sin 0 = 1
	: 1x2 = 2 x 2 . 82 x sin 10	d= 2-82
	2=0.9792	d=0.979
		: nd = 2dsino
	For , n=2,02?	2x2.82 nx0.979 = 2x2.82x1
	nd=2dsino	2x 2x2.82 0.879
	2×0.979= 2×2.825in 02	0.879
	singz = 2x0.979 2x2.82	ne 5.76
		: Highest order = 5
	@z = sin (0.979) = 20.31 2.82 = 20'18'	(02)02 + (02)
	= 20 (8 '	60.00
		0 E 12 6 6 6 7 6 6
5>	n=1, plone=(111), 0 =30	
		19:3 40
	: We know that,	0
	nd= 2dsino	
	1x 1.75 x16 = 2xd sin(30)	TE CO STATE
	$d = 1.75 \times 10^{-10}$ $2 \sin 30$	ANGUE
	d= 1.75Å	is 6 is but of
	d = a	Oracle to
	Now, $d = a$ $\sqrt{h^2 + 1c^2 + a^2}$	C. STATE OF
	1.75×10 = a	Construction of the second
	VI+1+1	p 12) (1 - S
	a = 1.75×10 × 5	2 8 2 8 8 8 8 8
	A = 3 93 A	de the stand of the same
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	Page 3
\Diamond	d=0.58A , Plane=(132), n=2 , a=3 81A
	: By Braggis low, ma = 1 alm
	:. By Braggis low, d= a
	0 = 8in (nd) = 3.81 = 3.81 VI+9+4 VI4
	V1+9+4 V14
	= Sirt (xx0.58x10-10) xx1.018x60
-0-	2 2 1 C 1807 CUCKS 3 N
	0 = sint = 34.72
1	275 ung 65 65
	578.048 02
	100 U 60 000 600 000 000 000 000 000 000
7	n=1,0-20', Plane=(219), a=3.615 A
	To find: d=? \$5.0 PUZINU - DIZ U . 1 COL
0	$\frac{1}{\sqrt{124}} \frac{1}{\sqrt{2}} \frac{1}{\sqrt{2}} \frac{2}{\sqrt{2}} \frac{2}{\sqrt{2}} \frac{1}{\sqrt{2}} \frac{2}{\sqrt{2}} \frac{2}{\sqrt{2}} \frac{1}{\sqrt{2}} \frac{2}{\sqrt{2}} \frac{2}{$
	NOW, 1458011 - FP7142 - ONE SIN 60)
	$n\lambda = 2 d \sin \theta$
336.00	$A = 2 \times 1.205 \times \sin(20)$
	A = 0.824 A
	1 1 1 1 2 2 3
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	Page 4
8>	1 = 1.549 A = 4.2551 A (281) -1019 1320 4
	FOR smallest glancing angle, n=1
	$O = \sin^4\left(\frac{\lambda}{2d}\right) = \sin^4\left(\frac{1.549}{2\times4.255}\right) = 10.486 \text{ A}$
	13. 8 13.8 12 12 12 13 13 13 13 13 13 13 13 13 13 13 13 13
	We know that sin a ≤ 1
	21-12-20
	$\frac{1}{20}$
	for n=2, sine = 2x1.549 = 0.36
	2 × 4.2 5 5
	for n=3 sino= 3x1.549 = 0:54
	2×4·253
	for n= 4, sino = 4x1.549 = 0.72
	2×4.255
	for n=5, sina = 5x1.549 = 0.9
	$for n=6$, $sino = 6 \times 1.549 = 1.087 > 1$ 2×4.255
	"As sin a connot be greater than I highest order
	possible is 5.
0	FOR EDUCATIONAL USE
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	Poge C
(61	1 = 0 712 (001) 91019 PRIVA 19000 TE
	(hke) = (200) 13 (20)
	n=2 (111) 94018, "HT = 60"
	8 = 1.99 × 103 kg /m3
	Weight = 74.6 Wal appose prise.
	To bind: d=?, 0=?
	15. 9/5
	we know that,
	S=ZXM A TO THE COOK SAL
	NaxaB saging (Pa)nes
	$a^3 = ZxM = 4x 74.6 x 10^{-3}$
	Nax 8 6-022 x 1023 x 1,99 x 103
	be head in sol
	:. 03 = 249 × 10-30 0 (D. P) 125
	a = 6.29 × 10 = 6.29 Å
	A : A : B : B : B : B :
	: d = a 2 = 6.29 = 6.29 = 3.145 A
	Vn2+12+12 V4+0+0
	By Bragg's law,
	The state of the s
	$2 \times 0.71 = 2 \times (3.105) \sin 0$
	.: 0 = sin+(0.2257)
	G = 13 · OS'
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