2002 exam solutions

al/ i) e panes through P(2,3,-1) and Q(3,2,-3)

so bos direction rector PQ = i -i -2 k, so bos vertor

equin [ = 2 \ +3 \] - k + + ( \ \ - \] - 2 \ ) .

(ii) This becomes  $\begin{cases} 2-2+t \\ 3-3-t \\ 2-1-2+t \end{cases}$ 

igidling Certain equations 
$$x-2=\frac{y-3}{-1}=\frac{2+1}{2}$$

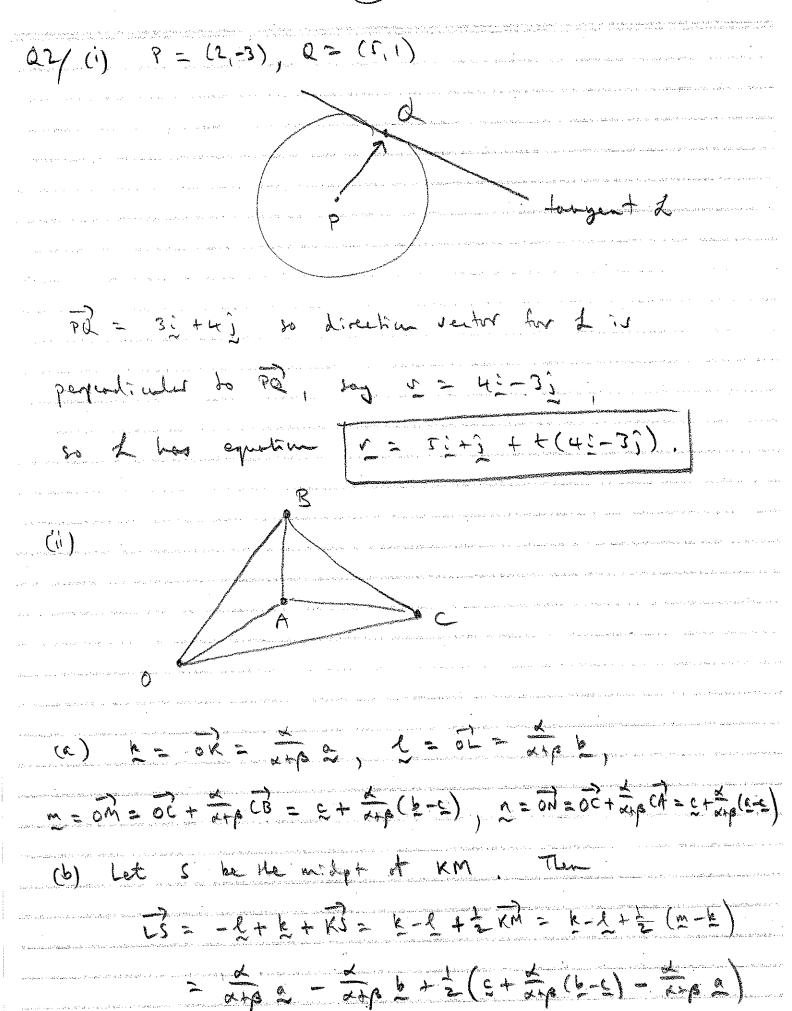
(iii) A=(1,2,1), B=(4,3,2), C=(3,-2,4) &0

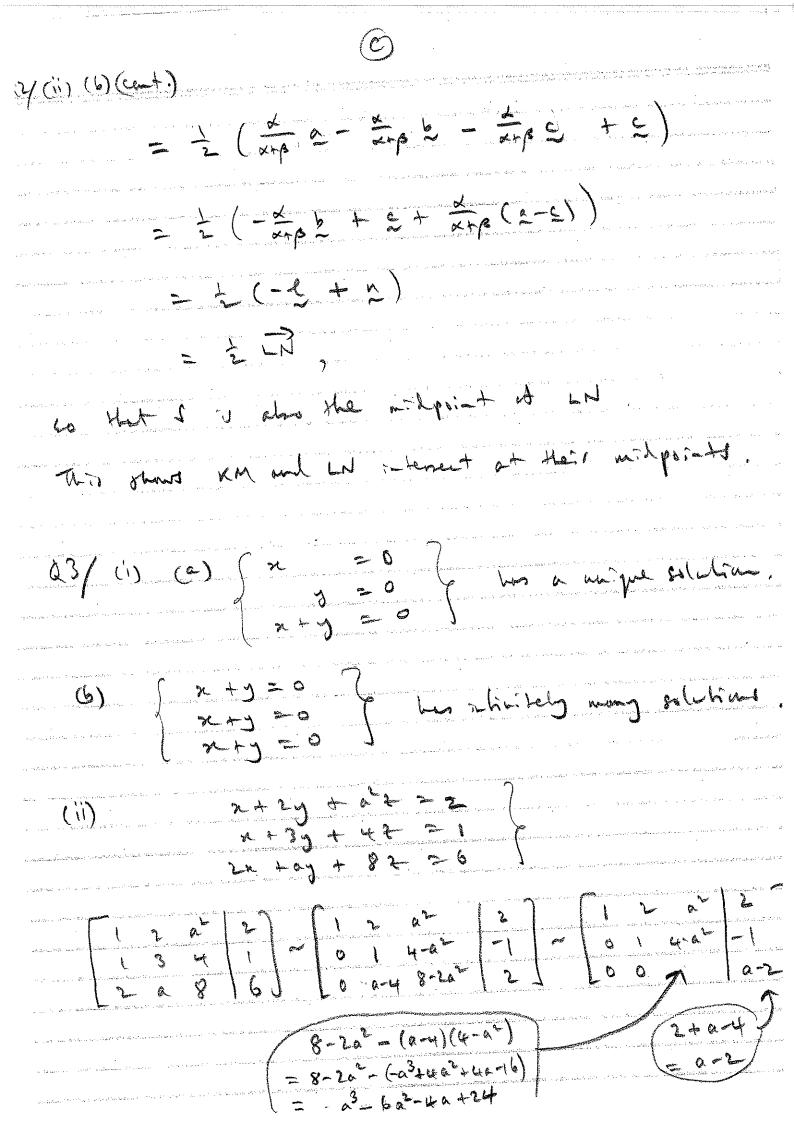
AB = 3: +1+k and AC = 2:-41+3k, So

(iv) Plane curtaining A.B.C has equation

(4) I hus direction vector PQ = 7 th normal to

He plane, so the true is perpendicular to the plane







Q3/cb) (iii) The system is inemsistent it p(a)=a3-6a2-4a+24=0 end a-2 ≠0 Cartainly PC2) = -8 - 24 +8 +24 =0 and -2-2=-4+0, & a=-2- j'elle on inconsistent system. Observe that about 8 a of 12 a+2/23-601-44+24 w Pared at 24 - 802 - 160 12 4 42 4 12 6 4 24 20 Met p(a) = (are) (a'-8a +12) = (++1) (+-6)(4-2) 80 [a=6] also jiells ar irensistent sørtem and a think the following in the same of t Q4/ii)[=0]=[0,0]=[ 

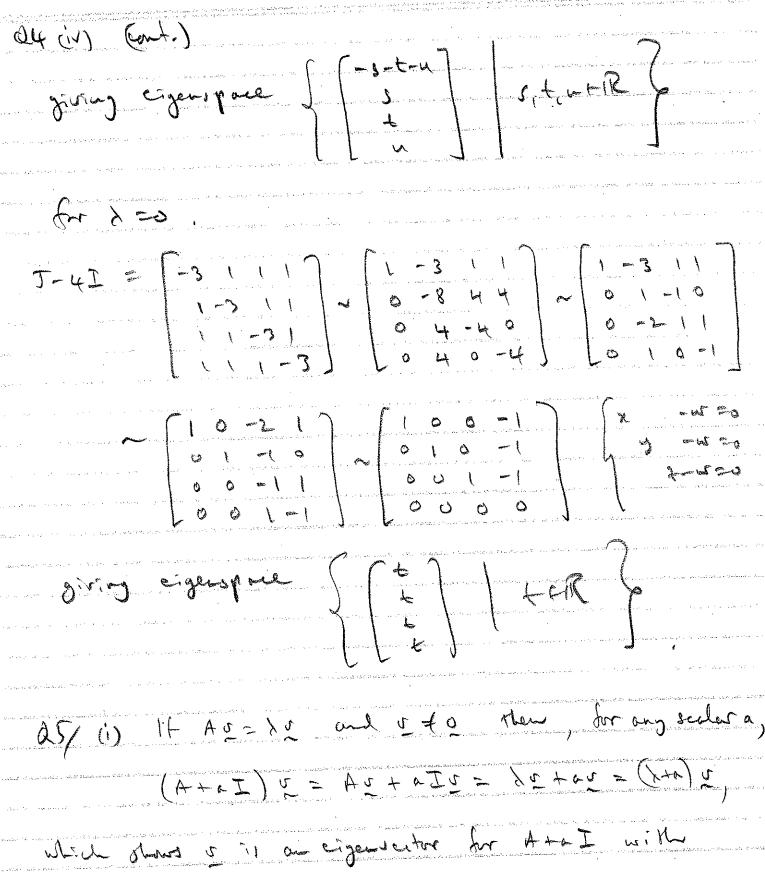


in unburgas, hade i inggalek kenthet stock kushiri kenthetik er general de	e franklige en de franklige en skrive En franklige en de franklige en franklige	etti kirgilariya karaktırı ilki ilkiları ili ilkil Karaktırı karaktırı ilkili	en same typen og skrivet skriv Length om det sterre	Zusanie są skiela ir dyskieto tie Skiela ir są dan skielato skielato sk	grandige registration to the first section of the s	n density nyaéta di Pate Salah nasah ngantalah na	Lands (Strendthold) fright one Burgsy on Color Burgs (1997)	and the bound of and a decimal of the confidence of the	g vog i standard fra per sek A sek i si si si sagetan sek	ে এই এই বিশ্ব ইন্সাধিত ইন্সা
Q4/ (")	atb	<u> </u>	Q	23 m 1 m. 2 m. 2 m. 2 m. 2 m. 2 m.		2atb				AND THE
Company of the second of the second		alb		تعط الشابحات كالوجالي		A. (287) 2 (179) 1940 A. (188) 2 (189) 1950	oth	0	_ a	y grant to V
a proposition and a second control of the se	Acceptable from the Control of the C	<b>Q</b>	~ \\	<b>. 6</b>	echological and a second		o se sacionere e e e	o Ho	0	.m. j. s. s. s. s. s. s.
	10	• • • • • • • • • • • • • • • • • • •	<b>&amp;</b>	e Va		1	en e	<b>.</b>	419	1. m. 5.
angan mengangan di kacamatan dan sebagai dan sebagai dan sebagai dan sebagai dan sebagai dan sebagai dan sebaga Sebagai dan sebagai dan se	ran a sasan e a series e series e series e e e e e e e e e e e e e e e e e e	30.16	? c	enge skriver ne en de de	1 4043	Larl	Ler	<b>L</b>	- Hg	July Sant Care
=   Barb	و عمر ماران المرادين الماران المرادين	A		Access of the second se	. <mark> </mark>	. 1	An artist	. 1 42 14 15 17 17 1	.	
and the second s	<b>b</b> in	طهر	e from	Service and M	1 a	Con.	<i>(</i> -	100	War.	
<u></u>	<b>*</b>	6	ally			· · · · · · · · · · · · · · · · · · ·		O	المام	
							ş		a e e	
(iil) conti	C in	(1)			(1. a.l.b.)	د <b>بد</b> اد د		e market man	ar a <b>f</b> a wif	
and the second second				,	(unto)	1				
and the second of the second of	a yay yaran a a ta in in in	ag intgerne a vælet av ein het t		agus i sant saaraan ah	en e				o ch	
and the second s	and the second s	and the second of the control of the	e de la companya de l	and the second second			• •	- 14 - 2 + 4		
and the second s	a aan ah	oo of the property to the first	en de la companya de Companya de la companya de la compa	The state of			3	e production	gang mang bandhar di ka	
CENH	,)	a 5	0 0	en de la companya de	= (4	4.2) 5	l marin distri	and a section of	ty illian or entre	
and the second second second second second		9 0	9 0	gardes later som	eria et	and the second of the second			and the second of the second	
garage and the second s		a 0	0 4		and the same of	i de la compania de l La compania de la co	and the second	ar e	A was selected as	****** ** **
And the second s	e de la compansión de la c	and the property of the control of t	g against the control of the	er er waarden	and the same	ar zamin i Arizani ere	and the second of the second		· · · · · · · · · · · · · · · · · · ·	, w.
(i) Let (	7-12	1 2	1 00 /2 1 mm	man and the second			[4-3	(-)	and the second second	, s s
sa transportation intersecution in the control of t	an and a second second	and the second s	to discussed the contract	and the second second second						
ingen og staten skalen og en	्रमा १८ वर्ष केरिकाची च्याप्तिकार १६ वर्षा है।	and the control of the few fields	grafia eta eta eta eta eta eta eta eta eta et	and the second	1-1	angul (California) - in	gersensen, weter of a transference	4=1		Taker fra in
Section (Control of Control of Co	er parameter (* 80%)	er, governore en etc.		Service Control	in and a second control of the second contro	auto de la Companya d	g is the second	ence to the terms	Lee (II)	
taga kang pagamatan kang bang bang bang bang bang bang bang b	and the second	120 120 200 200 200 200 200 200 200 200	alle and the conference where the							
りとか	uelue	1 6	و ک	~ + ,	0	to the section of the	dag a see sa ta	entro di se	a, coast parent	\$1.50° co

80 ×17+5+4 =3

T





respect to expension I ta

QT (ii) If As= de and exto then, for any scalar b, (bA) v = b (Av) = biby = (bx) x, which should v is on esperienter for 6A with respect to eigenvalue 6 %. (m) Ar= (0100 ... 0 2 470 520 2 470 5220 2 470 5220 5-20 520+81-30 5220 +5-40 sin (n-2) 0 + sin y 0 57m(n-1) 0 no King - sin (H) 0 = sin (N+1) kTT =0 TO HE (N-110 = ELE(N-110 + ELE(N-110 8520 4229 8-20 5 is a egenetir with repet to ejewill



