IOE MODELENTRANCE EXAM 2023 SET 2

# BEATS ENGINEERING

## **INSTITUTE OF ENGINEERING**

## **Model Entrance Exam**

<u>(Set-2)</u>

Instructions:

There are 100 multiple-choice questions, each having four choices of which only one choice is correct.

Date: 2080/02/27 (June-10) Duration: 2 hours Time: 8 AM – 10 AM

#### Section-A (1 marks)

1)	None of the problems	discussed.		
,	a) were	b) has been	c) is	d) was
2)	She has lifting	g the load.	,	,
,	a) difficulty at	b) difficulty in	c) difficulty for	d) difficulty of
3)	They on a pic	nic tomorrow.	, ,	, <b>,</b>
,	a) will go	b) will be going	c) will have gone	d) had been
4)	The manager would ra	ather at his off	ice than stayed at hom	e last week.
,	a) have worked	b) work	c) had worked	d) working
5)	He is famous	his acting skills.	,	, U
,	a) over	b) of	c) for	d) by
6)	He had to cut a sorry	figure for accepting b	ribes in public.	, <b>,</b>
,	a) to be proud	b) to be cheated	c) to be ignored	d) to be ridiculed
7)	Select the option that	expresses the given se	ntence in passive voice	2.
,	"Are fossil fuels not i	mpacting human healt	h?"	
	a) Did human health r	not being impacted by	fossil fuel?	
	b) Was human health	not being impacted by	fossil fuel?	
	c) Is human health no	t impacted by fossil fu	el?	
	d) Is human health no	t being impacted by fo	ssil fuel?	
8)	Ássuage (Synonym):			
,	a) mitigate	b) intensify	c) augment	d) provoke
9)	Insatiable (Antonym)	:	, 6	
,	a) requiring	b) unsatisfied	c) appeasing	d) gluttonous
10)	The word 'robbery' h	as a stress primarily or	n its syllable.	,
/	a) first	b) second	c) third	d) fourth
11)	The sooner you leave.	, vou reach.	,	,
/	a) the quickest	b) quicker	c) the quicker	d) the more quicker
12)	I'd prefer fo	or the next bus rather	than travel on a crow	ded one because I have difficulty
,	standing up for long.			5
	a) waiting	b) to wait	c) wait	d) to be waiting
13)	A dimensionless quan	ntity:	, ,	
<i>,</i>	a) never has a unit	b) always has a unit	c) may have a unit	d) does not exist
14)	The area under accele	ration-time graph repr	esents:	
	a) initial velocity	b) final velocity	c) change in velocity	d) distance travelled
15)	If the force acting on	a body is inversely pro	portional to its speed,	then its kinetic energy is:
	a) linearly related to time			
	b) inversely proportio	nal to time		
	c) inversely proportio	nal to the square of tin	ne	
	d) a constant			
16)	The escape velocity o	f a body from the Eart	h depends on:	
	(i) the mass of the boo	dy		
	(ii) the location from	where it is projected		
	(iii) the direction of p	rojection		
	(iv) the height of the l	location from where th	e body is launched	
	a) (i) and (ii)	b) (ii) and (iv)	c) (i) and (iii)	d) (iii) and (iv)
17)	For a perfectly rigid b	oody:		
	a) Young's modulus i	s infinite and bulk mo	dulus is zero	
	b) Young's modulus i	is zero and bulk modul	us is infinite	
	c) Young's modulus i	s infinite and bulk mo	dulus is also infinite	
	d) Young's modulus i	is zero and bulk modul	us is also zero	

18)	The total energy of a simple harmonic oscil a) amplitude	lator is proportional to b) square of amplitud	: le
	c) frequency	d) velocity	
19)	The latent heat of vaporization of a substand	ce is always:	
	a) greater than its latent heat of fusion	b) greater than its lat	ent heat of sublimation
20)	c) equal to its latent heat of sublimation	d) less than its latent	heat of fusion
20)	Pressure of a gas at a constant volume is pro	oportional to:	
	a) total internal energy of the gas		
	b) average kinetic energy of the molecules		
	c) average potential energy of the molecule.	8	
21)	Sound waves in air cannot be polarized bec	9116 <b>0</b> .	
21)	a) their speed is small	b) they require medi	ım
	c) they are longitudinal	d) their speed is tem	perature independent
22)	A sphere encloses an electric dipole within	it. The total flux acros	s the sphere is:
/	a) zero	b) half that sue to a s	ingle charge
	c) double that due to a single charge	d) dependent on the	position of dipole
23)	The direction of the flow of current through	electric circuit is:	-
	a) from low potential to high potential	b) from high potentia	al to low potential
	c) does not depend upon potential value	d) current cannot flow	w through circuit
24)	Nickel shows ferromagnetic property at ro	oom temperature. If th	e temperature is increased beyond
	Curie temperature, then it will show:	1	
	a) anti ferromagnetism	b) no magnetic prope	erty
25)	c) diamagnetism	d) paramagnetism	
25)	when an ac voltage of $220$ v is applied to t	The capacitor $C$ , then:	
	a) the maximum voltage between plates is 2 b) the current is in phase with the applied w	oltage	
	c) the charge on the plate is not in phase with the applied $\vec{v}$	th the applied voltage	
	d) power delivered to the capacitor per cycl	e is zero	
26)	Mirage is a phenomenon due to:		
,	a) refraction of light	b) reflection of light	
	c) total internal reflection of light	d) diffraction of light	t
27)	A converging lens is used to form an image	on a screen. When the	upper half of the lens is covered by
	an opaque screen:		
	a) half the image will disappear	b) complete image w	ill disappear
<b>2</b> (1)	c) intensity of image will decrease	d) intensity of image	will increase
28)	In photoelectric effect, the photoelectric cur	rrent is independent of	
	a) intensity of incident light b) potential difference applied between the	two algotradas	
	c) the nature of emitter material	two electrodes	
	d) frequency of incident light		
29)	Which of the following spectral series falls	within the visible rang	e of electromagnetic radiation?
- /	a) Lyman series b) Balmer series	c) Paschen series	d) Pfund series
30)	In triangle ABC, if $a = 13$ , $b = 14$ and $c =$	= 15, then radius of ex	-circle $r_1$ is:
	a) 4 b) 10.5	c) 13.5	d) 17.5
31)	If $A = \tan^{-1} x$ , then $\sin 2A =$		
	a) $\frac{2x}{\sqrt{2x}}$ b) $\frac{2x}{\sqrt{2x}}$	c) $\frac{2x}{\sqrt{2x}}$	d) $\frac{1+x^2}{x^2}$
20)	$\frac{\sqrt{1-x^2}}{1+x^2}$	$\sqrt{1+x^2}$	$(1-x^2)$
32)	If $\sin \theta = \frac{\pi}{4}$ , then the general value of $\theta$ is	$\pi$	$\pi$ $\pi$
	a) $2n\pi \pm \frac{\pi}{3}$ b) $n\pi \pm \frac{\pi}{3}$	c) $2n\pi \pm \frac{\pi}{6}$	d) $n\pi + (-1)^n \frac{\pi}{6}$

33)	The value of expressi	ion $3\cos\theta + 4\sin\theta$ lie	es between:	
	a) [-3,3]	b) [-4,4]	c) [-5,5]	d) [-1,1]
34)	$\lim \frac{1+2+3+\dots+n}{2} =$		/ L · J	/ L · J
54)	$ \begin{array}{ccc}  & n \\  & n \\  & n \\  & n^2 \end{array} $	1 \ 1 /	X 1/2	
	a) 1/2	b) ¼	c) 1/3	d) 1/6
35)	$\frac{d}{dx}\cos^{-1}(\sin x) =$			
	a) x	b) -1	c) $-\tan x$	d) $-\cot x$
	$c^{\frac{1}{\sqrt{2}}} dx$			
36)	$\int_{0}^{\sqrt{2}} \frac{1}{\sqrt{1-x^2}} =$			
	a) $\pi/2$	b) π/3	c) $\pi/6$	d) $\pi/4$
37)	The side of an equila	ateral triangle is 'a' ur	nits and is increasing a	at the rate of 'k' units/sec. Rate of
	increase of its area is	•	_	_
	a) $\frac{2}{\sqrt{2}}k$	b) $\sqrt{3} ak$	c) $\frac{\sqrt{3}}{2}ak$	d) $\frac{\sqrt{3}}{2\pi t}$
28)	The value of $\sqrt{7+2}$	$\overline{4i} + \sqrt{7 - 24i} -$	Z	2 <i>aR</i>
38)	The value of $\sqrt{7} \pm 2^{4}$	$4l + \sqrt{7} - 24l =$	c) 1	$d > C \sqrt{2}$
20)	a) $\delta$	$0) \ 2\sqrt{2}$	C) 4	a) $6\sqrt{2}$
39)	The value of K for Wr	$\frac{1}{3}$	is of the equation $(\kappa - 9)$	$(2)x^{2} + (k - 5)x - 5 = 0$ is 3 is:
	a) $k = \frac{1}{4}$	b) $k = \frac{1}{2}$	c) $k = \frac{1}{7}$	d) $k = -4$
40)	If A and B are square	e matrices of same orde	r and AB = 3I, then A	$^{-1} =$
	a) A/3	b) 3A	c) B/3	d) 3B
41)	$A - (B \cap C) =$			
	a) $A - (B - C)$	,	b) $(A - B) \cup (A - C)$	)
	c) $(A - B) \cap (A - C)$	)	d) $(A - B) \cap C$	
42)	If $y = x - \frac{x^2}{2} + \frac{x^3}{2} - \frac{x^3}{2}$	$\frac{x^{+}}{2} + \dots + \infty$ , then $x =$		
	a) $e^{y} - 1$	b) $1 + e^{y}$	c) $\log y - 1$	d) $1 + \log y$
43)	The domain of the fu	nction $f(x) = \frac{x}{x}$ is:		
,	a) (0 m)	b) $(-1 - \infty)$	$c)(-\infty,\infty)$	d) $R = \{2\}$
4.4)	$a_{i}(0,\infty)$	$\vec{b} = (\vec{r} \cdot 2i + b)$	$()$ $($ $\infty, \infty)$	$\vec{L}$
44)	$\prod u = (2l + j + 2k)$	and $D = (5l - 5j + k)$	$r_{\rm a}$ , then the projection of	$a \to c$
45)	a) 5 The equation of the li	0) 4 ine which makes v_inte	C) J ercent three times the s	u) 0 intercent and passes through (1.2)
<del>4</del> <i>3</i> )	is.	ine which makes x-mit	reept unce unles une y	-intercept and passes through (1,2)
	a) $r + 3v = 7$	b) $3x - y = 5$	c) $2x + 4y = 1$	d) $5x - 2y = 9$
46)	The equation of the c	ircle having radius 5 a	nd concentric with the	circle $x^2 + y^2 - 6x - 4y - 3 = 0$
10)	is:	note naving radius o a		
	a) $x^2 + y^2 - 6x - 4^2$	v + 18 = 0	b) $x^2 + y^2 - 6x - 4$	v - 1 = 0
	c) $x^2 + y^2 - 6x - 4^2$	y - 12 = 0	d) $x^2 + y^2 + 6x + 4$	y + 5 = 0
47)	If the parabola $y^2 = 1$	4ax passes through (–	(3,2), then the length of	of the latus rectum is:
,	a) 2/3	b) 4/3	c) 8	d) 4
48)	Which one of the foll	lowing does not represe	ent a hyperbola?	
	a) $xy = 1$		b) $x^2 - y^2 = 5$	
	c) $(x-1)(y-3) =$	3	d) $x^2 - y^2 = 0$	
49)	The angle between th	the pair of planes $x + 2y$	y + 3z = 5 and $3x - 3$	3y + z = 1 is:
	a) 30°	b) 60°	c) 90°	d) 45°
50)	Which of the following	ng is the correct order of	of size of the given spe	ecies?
\	a) $I > I^- > I^+$	b) $I^+ > I^- > I$	c) $I > I^+ > I^-$	d) $I^- > I > I^+$
51)	The hybridization of	C involved in acetylen	e 1s:	1) 1 2
50)	a) $sp^2$	b) sp <sup>3</sup>	c) sp	a) dsp <sup>2</sup>
52)	which of the following $E = U = E$	ng nyarogen bonds is t	ne strongest?	
	а) г. – П Г	υ) U — Π U	C = H F	u) U — п N

53)	Which of the following has highest p <sup>H</sup> value?				
	a) CH <sub>3</sub> COOK	b) Na <sub>2</sub> CO <sub>3</sub>	c) NH <sub>4</sub> Cl	d) NaNO3	
54)	Which of the following has least boiling point?				
	a) n-hexane		b) n-pentane		
	c) 2-methyl butan	e	d) 2,2-dimethy	l propane	
55)	Calgon is:				
	a) Na2Al2Si2O8.xI	H <sub>2</sub> O	b) Na <sub>2</sub> [Na <sub>4</sub> (PC	<b>D</b> <sub>3</sub> ) <sub>6</sub> ]	
	c) Na <sub>3</sub> PO <sub>4</sub>		d) Ca2Al2Si2O	8.xH2O	
56)	Oxidation number	r of P in $PO_4^{3-}$ ion is	:		
	a) -3	b) +7	c) +5	d) +3	
57)	Solvay process is used for the manufacture of:				
	a) NaOH	b) Na <sub>2</sub> CO <sub>3</sub>	c) NH <sub>3</sub>	d) NaCl	
58)	Purest form of iron is:				
	a) pig iron	b) last iron	c) steel	d) wrought iron	
59)	The normality of 0.3 M phosphorous acid (H <sub>3</sub> PO <sub>3</sub> ) is:				
	a) 0.1	b) 0.9	c) 0.3	d) 0.6	
60)	1 atom of an element weighs $1.8 \times 10^{-22}$ g. The atomic weight of the element is:				
	a) 29.9	b) 18	c) 108	d) 154	

#### Section-B (2 marks)

Read the following passages and answer the questions given below.

A well-dressed young man entered a big textile shop one evening. He was able to draw the attention of the salesmen who thought him rich and likely to make heavy purchases. He was shown the superior varieties of suit lengths and sarees. But after casually examining them, he kept moving to the next section, where readymade goods were being sold and further on to the hosiery section. By them, the salesmen had begun to doubt his intentions and drew the attention of the manager. The manager asked him what exactly he wanted and he replied that he wanted courteous treatment. He explained that he had come to the same shop in casual dress that morning and drawn little attention. His pride was hurt and he wanted to assert himself. He had come in good dress only to get decent treatment, not for getting any textiles. He left without making any purchase.

- 61) The young man was well-dressed because:
  - a) it was his habit to dress well
  - b) it was his wedding day
  - c) he wanted to meet the manager of the shop
  - d) he wanted to impress the salesmen
- 62) The salesman in the shop are described as people who pay attention to:
  - a) only young men and women b) pretty women
  - c) only rich customers d) regular customers
- 63) The young man moved away to the hosiery section because he:
  - a) was not interested in purchasing anything now
    - b) did not like the readymade clothes
    - c) wanted better clothes
    - d) was restless

64)	The young man left	without making purch	ases because he:	
	b) could not find any	zy z item of his choice		
	c) had come only to	o make a point about	the indifferent attitud	e of the salesmen towards casually
	dressed customers	o make a point about	the maniferent attitud	e of the substitution towards custanty
	d) decided to come t	o make the purchases	later on	
65)	An insect trapped in	a circular groove of ra	dius 12 cm moves alor	ng the groove steadily and completes
,	7 revolutions in 100	s. The linear speed of	the insect is:	
	a) 4.3 <i>cms</i> <sup>-1</sup>	b) 5.3 cms <sup>-1</sup>	c) 6.3 <i>cms</i> <sup>-1</sup>	d) 7.3 <i>cms</i> <sup>-1</sup>
66)	A block of mass 1 k	g lies on a horizontal	surface in a truck. The	coefficient of static friction between
	the block and the su	rface is 0.6. If the acc	eleration of the truck i	s 5 $ms^{-2}$ , the frictional force acting
	on the block is:			
	a) 10 N	b) 5 N	c) 2.5 N	d) 20 N
67)	A child is standing v	vith his two arms outs	tretched at the centre o	f a turntable that is rotating about its
	central axis with an	angular speed $\omega_0$ . No	w, the child folds his h	hands back so that moment of inertia
	becomes 3 times the	initial value. The new $\omega_0$	angular speed is:	τ. <b>W</b> 0
	a) $3\omega_0$	b) $\frac{3}{3}$	c) $6\omega_0$	d) $\frac{40}{6}$
68)	A capillary tube of r	adius r is immersed in	water and water rises	in it to a height h. The mass of water
	in the capillary tube	is 5 g. Another capilla	ry tube of radius 2r is in	mmersed in water. The mass of water
	that will rise in this t	ube is:	> 10	N <b>2</b> 0
$\langle 0 \rangle$	a) 2.5 g	b) 5.0 g	c) 10 g	d) 20 g
69)	A cup of coffee cool	Is from 90 C to 80 C i	In t minutes, when the $80^{\circ}$ C to $60^{\circ}$ C at a re-	room temperature is $20^{\circ}$ C. The time
	$\sqrt{5}$	$1 \times \frac{13}{1}$	13,	$_{1}$ 10 ,
	a) $\frac{1}{13}t$	b) $\frac{10}{10}t$	c) $\frac{1}{5}t$	d) $\frac{1}{13}t$
			± /2	
70)	A monoatomic gas i	s adiabatically compre	essed to $\frac{1}{4}^{th}$ of its origi	nal volume, the final pressure of gas
70)	A monoatomic gas in terms of initial pre-	s adiabatically compre essure P is:	essed to $\frac{1}{4}^{th}$ of its origi	nal volume, the final pressure of gas
70)	A monoatomic gas i in terms of initial pre a) 7.08 P	s adiabatically compre essure P is: b) 8.08 P	essed to $\frac{1}{4}^{th}$ of its origi c) 9.08 P	nal volume, the final pressure of gas d) 10.08 P
70) 71)	A monoatomic gas i in terms of initial pre a) 7.08 P The fundamental no	s adiabatically compre essure P is: b) 8.08 P ode produced by a clo	essed to $\frac{1}{4}^{th}$ of its origi c) 9.08 P osed organ pipe is of	and volume, the final pressure of gas d) 10.08 P frequency v. The fundamental note
70) 71)	A monoatomic gas i in terms of initial pre a) 7.08 P The fundamental no produced by an open	s adiabatically compre- essure P is: b) 8.08 P ode produced by a clo n organ pipe of same le	essed to $\frac{1}{4}^{th}$ of its origi c) 9.08 P osed organ pipe is of ength will be of frequen	d) 10.08 P frequency v. The fundamental note
70) 71)	A monoatomic gas i in terms of initial pre a) 7.08 P The fundamental no produced by an open a) v/2	s adiabatically compre- essure P is: b) 8.08 P ode produced by a clo n organ pipe of same le b) v	essed to $\frac{1}{4}^{th}$ of its origi c) 9.08 P osed organ pipe is of ength will be of frequence c) 2v	<ul> <li>nal volume, the final pressure of gas</li> <li>d) 10.08 P</li> <li>frequency v. The fundamental note</li> <li>ncy:</li> <li>d) 4v</li> </ul>
70) 71) 72)	A monoatomic gas is in terms of initial pro- a) 7.08 P The fundamental no produced by an open a) v/2 Two identical capacit other to Va. The pro-	s adiabatically compre- essure P is: b) 8.08 P ode produced by a clo n organ pipe of same le b) v itors have the same cap	essed to $\frac{1}{4}^{th}$ of its origi c) 9.08 P osed organ pipe is of ength will be of frequenc) 2v pacitance C. One of the	<ul> <li>a) 10.08 P</li> <li>b) 10.08 P</li> <li>c) frequency v. The fundamental note</li> <li>c) and an another of the positive and a set of the po</li></ul>
70) 71) 72)	A monoatomic gas in in terms of initial pre- a) 7.08 P The fundamental nor produced by an open a) $v/2$ Two identical capacit other to V <sub>2</sub> . The neg	s adiabatically compre- essure P is: b) 8.08 P ode produced by a clo h organ pipe of same le b) v itors have the same cap gative ends of the cap	essed to $\frac{1}{4}^{th}$ of its origi c) 9.08 P osed organ pipe is of ength will be of frequency c) 2v pacitance C. One of the acitors are connected t	<ul> <li>a) 10.08 P</li> <li>b) 10.08 P</li> <li>c) frequency v. The fundamental note</li> <li>c) 4v</li> <li>c) 4v</li> <li>c) em is charged to potential V1 and the ogether. When the positive ends are .</li> </ul>
70) 71) 72)	A monoatomic gas is in terms of initial pro- a) 7.08 P The fundamental nor produced by an open a) $v/2$ Two identical capacit other to V <sub>2</sub> . The neg also connected, the $c$	s adiabatically compre- essure P is: b) 8.08 P ode produced by a clo n organ pipe of same le b) v itors have the same cap gative ends of the cap lecrease in energy of t	essed to $\frac{1}{4}^{th}$ of its origi c) 9.08 P osed organ pipe is of ength will be of frequency c) 2v pacitance C. One of the acitors are connected the he combined system is	anal volume, the final pressure of gas d) 10.08 P frequency v. The fundamental note ncy: d) 4v em is charged to potential V <sub>1</sub> and the ogether. When the positive ends are :
70) 71) 72)	A monoatomic gas in in terms of initial pre- a) 7.08 P The fundamental nor produced by an open a) $v/2$ Two identical capacit other to V <sub>2</sub> . The neg also connected, the c a) $\frac{c}{4}(V_1^2 - V_2^2)$	s adiabatically compre- essure P is: b) 8.08 P ode produced by a clo n organ pipe of same le b) v itors have the same cap gative ends of the capa lecrease in energy of t b) $\frac{c}{4}(V_1^2 + V_2^2)$	essed to $\frac{1}{4}^{th}$ of its origi c) 9.08 P osed organ pipe is of ength will be of frequence c) 2v pacitance C. One of the acitors are connected to the combined system is c) $\frac{c}{4}(V_1 - V_2)^2$	and volume, the final pressure of gas d) 10.08 P frequency v. The fundamental note ncy: d) 4v em is charged to potential V <sub>1</sub> and the ogether. When the positive ends are : d) $\frac{c}{4}(V_1 + V_2)^2$
<ul><li>70)</li><li>71)</li><li>72)</li><li>73)</li></ul>	A monoatomic gas is in terms of initial pro- a) 7.08 P The fundamental nor produced by an open a) $v/2$ Two identical capacit other to V <sub>2</sub> . The neg also connected, the open a) $\frac{c}{4}(V_1^2 - V_2^2)$ Three resistors 2 $\Omega$ , 4	s adiabatically compre- essure P is: b) 8.08 P ode produced by a clo n organ pipe of same la b) v itors have the same cap gative ends of the cap decrease in energy of t b) $\frac{c}{4}(V_1^2 + V_2^2)$ $\Omega$ and $5\Omega$ are combin	essed to $\frac{1}{4}^{th}$ of its origin c) 9.08 P posed organ pipe is of ength will be of frequency c) 2v pacitance C. One of the acitors are connected to the combined system is c) $\frac{c}{4}(V_1 - V_2)^2$ ed in parallel. This con	and volume, the final pressure of gas d) 10.08 P frequency v. The fundamental note ncy: d) 4v em is charged to potential V <sub>1</sub> and the ogether. When the positive ends are : d) $\frac{c}{4}(V_1 + V_2)^2$ mbination is connected to a battery of
<ul> <li>70)</li> <li>71)</li> <li>72)</li> <li>73)</li> </ul>	A monoatomic gas in in terms of initial pre- a) 7.08 P The fundamental nor produced by an open a) $v/2$ Two identical capacit other to V <sub>2</sub> . The neg also connected, the $c$ a) $\frac{c}{4}(V_1^2 - V_2^2)$ Three resistors 2 $\Omega$ , 4 emf 20 V and neglig	s adiabatically compre- essure P is: b) 8.08 P ode produced by a clo n organ pipe of same le b) v itors have the same cap gative ends of the capa decrease in energy of t b) $\frac{c}{4}(V_1^2 + V_2^2)$ $\Omega$ and $5\Omega$ are combin ible internal resistance	essed to $\frac{1}{4}^{th}$ of its origin c) 9.08 P posed organ pipe is of ength will be of frequency c) 2v pacitance C. One of the acitors are connected to the combined system is c) $\frac{c}{4}(V_1 - V_2)^2$ ed in parallel. This connected to the total current draw	and volume, the final pressure of gas d) 10.08 P frequency v. The fundamental note ncy: d) 4v em is charged to potential V <sub>1</sub> and the ogether. When the positive ends are : d) $\frac{c}{4}(V_1 + V_2)^2$ mbination is connected to a battery of wn from the battery is:
<ul> <li>70)</li> <li>71)</li> <li>72)</li> <li>73)</li> <li>74)</li> </ul>	A monoatomic gas in in terms of initial pro- a) 7.08 P The fundamental nor produced by an open a) $v/2$ Two identical capacit other to V <sub>2</sub> . The neg also connected, the of a) $\frac{c}{4}(V_1{}^2 - V_2{}^2)$ Three resistors 2 $\Omega$ , 4 emf 20 V and neglig a) 10 A	s adiabatically compre- essure P is: b) 8.08 P ode produced by a clo n organ pipe of same le b) v itors have the same cap gative ends of the cap lecrease in energy of t b) $\frac{c}{4}(V_1^2 + V_2^2)$ $\Omega$ and $5\Omega$ are combin tible internal resistance b) 15 A	essed to $\frac{1}{4}^{th}$ of its origi c) 9.08 P osed organ pipe is of ength will be of frequency c) 2v pacitance C. One of the acitors are connected the combined system is c) $\frac{c}{4}(V_1 - V_2)^2$ ed in parallel. This content e. The total current draw c) 19 A	anal volume, the final pressure of gas d) 10.08 P frequency v. The fundamental note ncy: d) 4v em is charged to potential V <sub>1</sub> and the ogether. When the positive ends are : d) $\frac{c}{4}(V_1 + V_2)^2$ mbination is connected to a battery of wn from the battery is: d) 23 A
<ul> <li>70)</li> <li>71)</li> <li>72)</li> <li>73)</li> <li>74)</li> </ul>	A monoatomic gas is in terms of initial pre- a) 7.08 P The fundamental nor produced by an open a) $v/2$ Two identical capacit other to V <sub>2</sub> . The neg also connected, the c a) $\frac{c}{4}(V_1^2 - V_2^2)$ Three resistors 2 $\Omega$ , 4 emf 20 V and neglig a) 10 A A circular coil of 70 horizontal magnetic	s adiabatically compre- essure P is: b) 8.08 P ode produced by a clo n organ pipe of same le b) v itors have the same cap gative ends of the capa decrease in energy of t b) $\frac{c}{4} (V_1^2 + V_2^2)$ $\Omega$ and $5\Omega$ are combin fible internal resistance b) 15 A turns and radius 5 cm of field of magnitude 15	essed to $\frac{1}{4}^{th}$ of its origi c) 9.08 P osed organ pipe is of ength will be of frequency c) 2v pacitance C. One of the acitors are connected to the combined system is c) $\frac{c}{4}(V_1 - V_2)^2$ ed in parallel. This content e. The total current draw c) 19 A carrying a current of 8A	and volume, the final pressure of gas d) 10.08 P frequency v. The fundamental note ncy: d) 4v em is charged to potential V <sub>1</sub> and the ogether. When the positive ends are : d) $\frac{c}{4}(V_1 + V_2)^2$ mbination is connected to a battery of wn from the battery is: d) 23 A is suspended vertically in a uniform form the positive ends are and the positive ends are are are and the positive ends are are are are and the positive ends are
<ul> <li>70)</li> <li>71)</li> <li>72)</li> <li>73)</li> <li>74)</li> </ul>	A monoatomic gas in in terms of initial pro- a) 7.08 P The fundamental nor produced by an open a) $v/2$ Two identical capacit other to V <sub>2</sub> . The neg also connected, the c a) $\frac{c}{4}(V_1{}^2 - V_2{}^2)$ Three resistors 2 $\Omega$ , 4 emf 20 V and neglig a) 10 A A circular coil of 70 horizontal magnetic the coil then the mag	s adiabatically compre- essure P is: b) 8.08 P ode produced by a clo n organ pipe of same le b) v itors have the same cap gative ends of the cap decrease in energy of t b) $\frac{c}{4}(V_1^2 + V_2^2)$ $\Omega$ and $5\Omega$ are combin ible internal resistance b) 15 A turns and radius 5 cm of field of magnitude 1.5 gnitude of the counter	essed to $\frac{1}{4}^{th}$ of its origi c) 9.08 P osed organ pipe is of ength will be of frequency c) 2v pacitance C. One of the acitors are connected the combined system is c) $\frac{c}{4}(V_1 - V_2)^2$ ed in parallel. This content c) 19 A carrying a current of 8A of T. The field lines make torque that must be an	anal volume, the final pressure of gas d) 10.08 P frequency v. The fundamental note ncy: d) 4v em is charged to potential V <sub>1</sub> and the ogether. When the positive ends are : d) $\frac{c}{4}(V_1 + V_2)^2$ mbination is connected to a battery of wn from the battery is: d) 23 A A is suspended vertically in a uniform form the normal of plied to prevent the coil from turning
<ul> <li>70)</li> <li>71)</li> <li>72)</li> <li>73)</li> <li>74)</li> </ul>	A monoatomic gas is in terms of initial pre- a) 7.08 P The fundamental nor- produced by an open a) $v/2$ Two identical capaci- other to V <sub>2</sub> . The neg- also connected, the c a) $\frac{c}{4}(V_1{}^2 - V_2{}^2)$ Three resistors 2 $\Omega$ , 4 emf 20 V and neglig a) 10 A A circular coil of 70 horizontal magnetic the coil, then the mag- is:	s adiabatically compre- essure P is: b) 8.08 P ode produced by a clo n organ pipe of same le b) v itors have the same cap gative ends of the capa decrease in energy of t b) $\frac{c}{4} (V_1^2 + V_2^2)$ $\Omega$ and $5\Omega$ are combin fible internal resistance b) 15 A turns and radius 5 cm of field of magnitude 1.5 gnitude of the counter	essed to $\frac{1}{4}^{th}$ of its origin c) 9.08 P posed organ pipe is of ength will be of frequency c) 2v pacitance C. One of the acitors are connected to the combined system is c) $\frac{c}{4}(V_1 - V_2)^2$ ed in parallel. This connected to the total current draw c) 19 A carrying a current of 8A of T. The field lines make torque that must be app	anal volume, the final pressure of gas d) 10.08 P frequency v. The fundamental note ncy: d) 4v em is charged to potential V <sub>1</sub> and the ogether. When the positive ends are : d) $\frac{c}{4}(V_1 + V_2)^2$ mbination is connected to a battery of wn from the battery is: d) 23 A is suspended vertically in a uniform ce an angle of 30° with the normal of plied to prevent the coil from turning
<ul> <li>70)</li> <li>71)</li> <li>72)</li> <li>73)</li> <li>74)</li> </ul>	A monoatomic gas is in terms of initial pre- a) 7.08 P The fundamental nor- produced by an open a) $v/2$ Two identical capaci- other to V <sub>2</sub> . The neg also connected, the c a) $\frac{c}{4}(V_1{}^2 - V_2{}^2)$ Three resistors 2 $\Omega$ , 4 emf 20 V and neglig a) 10 A A circular coil of 70 horizontal magnetic the coil, then the mag- is: a) 33 Nm	s adiabatically compre- essure P is: b) 8.08 P ode produced by a clo n organ pipe of same le b) v itors have the same cap gative ends of the capa decrease in energy of t b) $\frac{c}{4}(V_1^2 + V_2^2)$ $\Omega$ and $5\Omega$ are combin jble internal resistance b) 15 A turns and radius 5 cm of field of magnitude 1.5 gnitude of the counter b) 3.3 Nm	essed to $\frac{1}{4}^{th}$ of its origi c) 9.08 P osed organ pipe is of ength will be of frequency c) 2v pacitance C. One of the acitors are connected to the combined system is c) $\frac{c}{4}(V_1 - V_2)^2$ ed in parallel. This content c) 19 A carrying a current of 8A 5 T. The field lines make torque that must be app c) $3.3 \times 10^{-2} Nm$	nal volume, the final pressure of gas d) 10.08 P frequency v. The fundamental note ncy: d) 4v em is charged to potential V <sub>1</sub> and the ogether. When the positive ends are : d) $\frac{c}{4}(V_1 + V_2)^2$ mbination is connected to a battery of wn from the battery is: d) 23 A A is suspended vertically in a uniform the an angle of 30° with the normal of plied to prevent the coil from turning d) $3.3 \times 10^{-4} Nm$
<ul> <li>70)</li> <li>71)</li> <li>72)</li> <li>73)</li> <li>74)</li> <li>75)</li> </ul>	A monoatomic gas in in terms of initial pro- a) 7.08 P The fundamental nor produced by an open a) $v/2$ Two identical capaci- other to V <sub>2</sub> . The neg- also connected, the c a) $\frac{c}{4}(V_1{}^2 - V_2{}^2)$ Three resistors 2 $\Omega$ , 4 emf 20 V and neglig a) 10 A A circular coil of 70 horizontal magnetic the coil, then the mag- is: a) 33 Nm A current of 1 A throw	s adiabatically compre- essure P is: b) 8.08 P ode produced by a clo n organ pipe of same le b) v itors have the same cap gative ends of the capa decrease in energy of t b) $\frac{c}{4} (V_1^2 + V_2^2)$ $\Omega$ and $5\Omega$ are combin ible internal resistance b) 15 A turns and radius 5 cm of field of magnitude 1.5 gnitude of the counter b) 3.3 Nm ough a coil of inductant	essed to $\frac{1}{4}^{th}$ of its origi c) 9.08 P osed organ pipe is of ength will be of frequency c) 2v pacitance C. One of the acitors are connected t he combined system is c) $\frac{c}{4}(V_1 - V_2)^2$ ed in parallel. This con e. The total current drav c) 19 A carrying a current of 8A 5 T. The field lines make torque that must be app c) $3.3 \times 10^{-2} Nm$ ce of 200 mH is increas	anal volume, the final pressure of gas d) 10.08 P frequency v. The fundamental note ncy: d) 4v em is charged to potential V <sub>1</sub> and the ogether. When the positive ends are : d) $\frac{c}{4}(V_1 + V_2)^2$ mbination is connected to a battery of wn from the battery is: d) 23 A A is suspended vertically in a uniform form the coil from turning d) $3.3 \times 10^{-4} Nm$ sing at a rate of 0.5 $As^{-1}$ . The energy
<ul> <li>70)</li> <li>71)</li> <li>72)</li> <li>73)</li> <li>74)</li> <li>75)</li> </ul>	A monoatomic gas is in terms of initial pre- a) 7.08 P The fundamental nor- produced by an open a) $v/2$ Two identical capaci- other to V <sub>2</sub> . The neg- also connected, the d a) $\frac{c}{4}(V_1{}^2 - V_2{}^2)$ Three resistors 2 $\Omega$ , 4 emf 20 V and neglig a) 10 A A circular coil of 70 horizontal magnetic the coil, then the mag- is: a) 33 Nm A current of 1 A thro- stored in the inducto	s adiabatically compre- essure P is: b) 8.08 P ode produced by a clo n organ pipe of same le b) v itors have the same cap gative ends of the capa decrease in energy of t b) $\frac{c}{4}(V_1^2 + V_2^2)$ $\Omega$ and $5\Omega$ are combin tible internal resistance b) 15 A turns and radius 5 cm of field of magnitude 1.5 gnitude of the counter b) 3.3 Nm ough a coil of inductance r per second is:	essed to $\frac{1}{4}^{th}$ of its origin c) 9.08 P osed organ pipe is of ength will be of frequency c) 2v pacitance C. One of the acitors are connected to the combined system is c) $\frac{c}{4}(V_1 - V_2)^2$ ed in parallel. This connected to the total current draw c) 19 A carrying a current of 8A of T. The field lines make torque that must be app c) $3.3 \times 10^{-2} Nm$ ce of 200 mH is increase	anal volume, the final pressure of gas d) 10.08 P frequency v. The fundamental note ncy: d) 4v em is charged to potential V <sub>1</sub> and the ogether. When the positive ends are : d) $\frac{c}{4}(V_1 + V_2)^2$ mbination is connected to a battery of wn from the battery is: d) 23 A A is suspended vertically in a uniform the an angle of 30° with the normal of plied to prevent the coil from turning d) $3.3 \times 10^{-4} Nm$ sing at a rate of 0.5 $As^{-1}$ . The energy
<ul> <li>70)</li> <li>71)</li> <li>72)</li> <li>73)</li> <li>74)</li> <li>75)</li> </ul>	A monoatomic gas is in terms of initial pro- a) 7.08 P The fundamental nor- produced by an open a) $v/2$ Two identical capaci- other to V <sub>2</sub> . The neg- also connected, the c a) $\frac{c}{4}(V_1{}^2 - V_2{}^2)$ Three resistors 2 $\Omega$ , 4 emf 20 V and neglig a) 10 A A circular coil of 70 horizontal magnetic the coil, then the mag- is: a) 33 Nm A current of 1 A throw stored in the inductor a) 0.5 Js <sup>-1</sup>	s adiabatically compre- essure P is: b) 8.08 P ode produced by a clo n organ pipe of same le b) v itors have the same cap gative ends of the capa decrease in energy of t b) $\frac{c}{4} (V_1^2 + V_2^2)$ $\Omega$ and $5\Omega$ are combin ible internal resistance b) 15 A turns and radius 5 cm of field of magnitude 1.5 gnitude of the counter b) 3.3 Nm ough a coil of inductant r per second is: b) 5 Js <sup>-1</sup>	essed to $\frac{1}{4}^{th}$ of its origi c) 9.08 P osed organ pipe is of ength will be of frequency c) 2v pacitance C. One of the acitors are connected the combined system is c) $\frac{c}{4}(V_1 - V_2)^2$ ed in parallel. This connected the total current draw c) 19 A carrying a current of 8A torque that must be app c) $3.3 \times 10^{-2} Nm$ ce of 200 mH is increas c) $0.1 Js^{-1}$	anal volume, the final pressure of gas d) 10.08 P frequency v. The fundamental note ncy: d) 4v em is charged to potential V <sub>1</sub> and the ogether. When the positive ends are : d) $\frac{c}{4}(V_1 + V_2)^2$ mbination is connected to a battery of wn from the battery is: d) 23 A A is suspended vertically in a uniform te an angle of 30° with the normal of plied to prevent the coil from turning d) 3.3 × 10 <sup>-4</sup> Nm sing at a rate of 0.5 As <sup>-1</sup> . The energy d) 2.0 Js <sup>-1</sup>
<ul> <li>70)</li> <li>71)</li> <li>72)</li> <li>73)</li> <li>74)</li> <li>75)</li> <li>76)</li> </ul>	A monoatomic gas is in terms of initial pre- a) 7.08 P The fundamental nor- produced by an open a) $v/2$ Two identical capaci- other to V <sub>2</sub> . The neg- also connected, the d a) $\frac{c}{4}(V_1{}^2 - V_2{}^2)$ Three resistors 2 $\Omega$ , 4 emf 20 V and neglig a) 10 A A circular coil of 70 horizontal magnetic the coil, then the mag- is: a) 33 Nm A current of 1 A thro- stored in the inducto a) 0.5 Js <sup>-1</sup> A ray of light is inci-	s adiabatically compre- essure P is: b) 8.08 P ode produced by a clo n organ pipe of same le b) v itors have the same cap gative ends of the capa decrease in energy of t b) $\frac{c}{4}(V_1^2 + V_2^2)$ $\Omega$ and $5\Omega$ are combin tible internal resistance b) 15 A turns and radius 5 cm of field of magnitude 1.5 gnitude of the counter b) 3.3 Nm ough a coil of inductant r per second is: b) 5 Js <sup>-1</sup> ident at 60° on one fac	essed to $\frac{1}{4}^{th}$ of its origi c) 9.08 P osed organ pipe is of ength will be of frequency c) 2v pacitance C. One of the acitors are connected to the combined system is c) $\frac{c}{4}(V_1 - V_2)^2$ ed in parallel. This connected to the total current draw c) 19 A carrying a current of 8A of T. The field lines make torque that must be app c) $3.3 \times 10^{-2} Nm$ ce of 200 mH is increase c) $0.1 Js^{-1}$ ce of a prism of angle	anal volume, the final pressure of gas d) 10.08 P frequency v. The fundamental note ncy: d) 4v em is charged to potential V <sub>1</sub> and the ogether. When the positive ends are : d) $\frac{c}{4}(V_1 + V_2)^2$ mbination is connected to a battery of wn from the battery is: d) 23 A A is suspended vertically in a uniform the an angle of 30° with the normal of plied to prevent the coil from turning d) $3.3 \times 10^{-4} Nm$ sing at a rate of 0.5 $As^{-1}$ . The energy d) $2.0 Js^{-1}$ 30° and the emergent ray makes 30°
<ul> <li>70)</li> <li>71)</li> <li>72)</li> <li>73)</li> <li>74)</li> <li>75)</li> <li>76)</li> </ul>	A monoatomic gas is in terms of initial pro- a) 7.08 P The fundamental nor- produced by an open a) $v/2$ Two identical capacit other to V <sub>2</sub> . The neg- also connected, the of a) $\frac{c}{4}(V_1{}^2 - V_2{}^2)$ Three resistors 2 $\Omega$ , 4 emf 20 V and neglig a) 10 A A circular coil of 70 horizontal magnetic the coil, then the mag- is: a) 33 Nm A current of 1 A throw stored in the inductor a) 0.5 Js <sup>-1</sup> A ray of light is inci-	s adiabatically compre- essure P is: b) 8.08 P ode produced by a clo n organ pipe of same le b) v itors have the same cap gative ends of the cap decrease in energy of t b) $\frac{c}{4}(V_1^2 + V_2^2)$ $\Omega$ and $5\Omega$ are combin ible internal resistance b) 15 A turns and radius 5 cm of field of magnitude 1.5 gnitude of the counter b) 3.3 Nm ough a coil of inductant r per second is: b) 5 Js <sup>-1</sup> ident at 60° on one fac	essed to $\frac{1}{4}^{th}$ of its origi c) 9.08 P osed organ pipe is of ength will be of frequency c) 2v pacitance C. One of the acitors are connected the combined system is c) $\frac{c}{4}(V_1 - V_2)^2$ ed in parallel. This content c) 19 A carrying a current of 8A of T. The field lines make torque that must be app c) $3.3 \times 10^{-2} Nm$ ce of 200 mH is increas c) $0.1 Js^{-1}$ ce of a prism of angle of the prism is:	anal volume, the final pressure of gas d) 10.08 P frequency v. The fundamental note ncy: d) 4v em is charged to potential V <sub>1</sub> and the ogether. When the positive ends are : d) $\frac{c}{4}(V_1 + V_2)^2$ mbination is connected to a battery of wn from the battery is: d) 23 A A is suspended vertically in a uniform te an angle of 30° with the normal of plied to prevent the coil from turning d) $3.3 \times 10^{-4} Nm$ sing at a rate of 0.5 $As^{-1}$ . The energy d) $2.0 Js^{-1}$ 30° and the emergent ray makes 30°

77)	The fringe width in wavelength 6400 Å i	a Young's double slit is used. How much will	t interference pattern i l it change, if blue ligh	s $2.4 \times 10^{-4} m$ , when red light of t of wavelength 4000 Å is used?
	a) $9 \times 10^{-4} m$	b) $0.9 \times 10^{-4} m$	c) $4.5 \times 10^{-4} m$	d) $0.45 \times 10^{-4} m$
78)	A light of waveleng	th 600 nm is incident	on a metal surface. W	hen light of wavelength 400 nm is
	incident, the maximu	im kinetic energy of the	e emitted photoelectro	ns is doubled. The work function of
	the metal is:			
	a) 1.03 eV	b) 2.11 eV	c) 4.14 eV	d) 2.43 eV
79)	If $\theta + \beta = \frac{\pi}{2}$ then the	he maximum value of (	$\cos A \cos B$ is:	,
())	$\mu \circ \mu = \frac{1}{2}$ , then the		1	1
	a) 1	b) √2	c) $\frac{1}{2}$	d) $\frac{1}{\sqrt{2}}$
80)	If $\cot^{-1} x + \cot^{-1} y$	$=\frac{\pi}{2}$ , then $xy =$	-	v-
	a) 1	b) -1	c) 0	d) 1/2
81)	$\lim \frac{1-\cos x}{2}$ is equal t	.0:		
,	$x \rightarrow 0$ $x^2$ 1	1.) 0	-) -	1) 1/2
	a) $1$	b) 0	c) ∞	d) 1/2
82)	If $y = e^{\sqrt{2x}}$ , then $\frac{dy}{dx}$	=		
	$e^{\sqrt{2x}}$	$\sqrt{2x}$	$e^{\sqrt{2x}}$	
	a) $\frac{1}{\sqrt{2x}}$	b) $e^{\sqrt{2x}}$	c) $\frac{1}{\sqrt{2}}$	d) $\sqrt{2}e^{\sqrt{2}x}$
83)	$\int \frac{dx}{dx} =$			
00)	$\int \tan x + \cot x$	$\sin 2r$	$\sin 2r$	$\cos 2x$
	a) $\frac{\cos 2\pi}{4} + c$	b) $\frac{\sin 2x}{4} + c$	c) $-\frac{6112x}{4} + c$	d) $-\frac{\cos 2x}{4} + c$
84)	A circular plate of m	ietal expands by heat so	o that its radius increas	ses at the rate of 0.25 cm/sec. Then,
	the rate at which the	surface area is increasi	ing when the radius is '	7 cm is:
	a) $\frac{5\pi}{m}$ cm <sup>2</sup> /sec	b) 15 <i>cm</i> <sup>2</sup> /sec	c) 11 cm <sup>2</sup> /sec	d) $\frac{7\pi}{m}$ cm <sup>2</sup> /sec
85)	$\frac{2}{2}$	the curve $y = x(1)$	$x)^2$ and x axis is:	
83)	The area bounded by $1/12$	the curve $y = x(1 - x)$	x) and x-axis is.	d > 5/7
90	a) $1/12$	$\frac{0}{10} = \frac{1}{10}$	C) 5/4	(1) 5/7
86)	If the sum of an infinite G.P. and sum of the squares of its terms are each equal to 3, then the commor			
	ratio of the 1 <sup>st</sup> series	18:	$\rangle 0/2$	12.2/2
	a) 1	b) $1/2$	c) 2/3	d) 3/2
		$\begin{bmatrix} x & x^2 & 1+x^3 \end{bmatrix}$		
87)	$1 \pm 22277 + 1 = 11 \pm 1007$			
	11 xyz + 1 = 0, then	$ y y^2   1 + y^3  =$		
	$\ln xyz + 1 = 0, \text{ then}$	$\begin{vmatrix} y & y^2 & 1+y^3 \\ z & z^2 & 1+z^3 \end{vmatrix} =$		
	a) $4xyz$	$\begin{vmatrix} y & y^2 & 1+y^3 \\ z & z^2 & 1+z^3 \end{vmatrix} = b) x + y + z$	c) $1 + x + y + z$	d) 0
88)	<ul> <li>a) 4xyz</li> <li>The term independent</li> </ul>	$\begin{vmatrix} y & y^2 & 1+y^3 \\ z & z^2 & 1+z^3 \end{vmatrix} = b) x + y + z$	c) $1 + x + y + z$ of $(2x + \frac{1}{2})^6$ is:	d) 0
88)	a) $4xyz$ The term independent	$\begin{vmatrix} y & y^2 & 1+y^3 \\ z & z^2 & 1+z^3 \end{vmatrix} = b) x + y + z$ it of x in the expansion	c) $1 + x + y + z$ of $\left(2x + \frac{1}{3x}\right)^6$ is:	d) 0
88)	a) $4xyz$ The term independent a) $\frac{160}{9}$	$\begin{vmatrix} y & y^2 & 1+y^3 \\ z & z^2 & 1+z^3 \end{vmatrix} = b) x + y + z$ it of x in the expansion b) $\frac{80}{9}$	c) $1 + x + y + z$ of $(2x + \frac{1}{3x})^6$ is: c) $\frac{160}{27}$	d) 0 d) $\frac{80}{3}$
88) 89)	a) $4xyz$ The term independent a) $\frac{160}{9}$ There are 5 roads be	$\begin{vmatrix} y & y^2 & 1+y^3 \\ z & z^2 & 1+z^3 \end{vmatrix} = b) x + y + z$ it of x in the expansion b) $\frac{80}{9}$ tween cities A and B and	c) $1 + x + y + z$ a of $\left(2x + \frac{1}{3x}\right)^6$ is: c) $\frac{160}{27}$ nd 4 roads between citi	d) 0 d) $\frac{80}{3}$ tes B and C. In how many ways can
88) 89)	a) $4xyz$ The term independent a) $\frac{160}{9}$ There are 5 roads be a person drive from $\lambda$	$\begin{vmatrix} y & y^2 & 1+y^3 \\ z & z^2 & 1+z^3 \end{vmatrix} = b) x + y + z$ of x in the expansion b) $\frac{80}{9}$ tween cities A and B and A to C and return by di	c) $1 + x + y + z$ a of $\left(2x + \frac{1}{3x}\right)^6$ is: c) $\frac{160}{27}$ and 4 roads between citation of the formula of the formu	d) 0 d) $\frac{80}{3}$ des B and C. In how many ways can
88) 89)	a) $4xyz$ The term independent a) $\frac{160}{9}$ There are 5 roads be a person drive from <i>x</i> a) 240	$\begin{vmatrix} y & y^2 & 1 + y^3 \\ z & z^2 & 1 + z^3 \end{vmatrix} = b) x + y + z$ int of x in the expansion b) $\frac{80}{9}$ tween cities A and B and A to C and return by di b) 480	c) $1 + x + y + z$ a of $\left(2x + \frac{1}{3x}\right)^6$ is: c) $\frac{160}{27}$ ind 4 roads between citation fferent roads? c) 156	d) 0 d) $\frac{80}{3}$ des B and C. In how many ways can d) 400
88) 89) 90)	a) $4xyz$ The term independent a) $\frac{160}{9}$ There are 5 roads be a person drive from <i>x</i> a) 240 If the pair of lines <i>az</i>	$\begin{vmatrix} y & y^2 & 1+y^3 \\ z & z^2 & 1+z^3 \end{vmatrix} = b) x + y + z$ int of x in the expansion b) $\frac{80}{9}$ tween cities A and B and A to C and return by di b) 480 $x^2 + 2hxy + by^2 + 2g$	c) $1 + x + y + z$ a of $\left(2x + \frac{1}{3x}\right)^6$ is: c) $\frac{160}{27}$ nd 4 roads between citil fferent roads? c) 156 gx + 2fy + c = 0 inte	d) 0 d) $\frac{80}{3}$ des B and C. In how many ways can d) 400 rsect on y-axis, then:
88) 89) 90)	a) $4xyz$ The term independent a) $\frac{160}{9}$ There are 5 roads be a person drive from <i>x</i> a) 240 If the pair of lines <i>ax</i> a) $f^2 = bc$	$\begin{vmatrix} y & y^2 & 1+y^3 \\ z & z^2 & 1+z^3 \end{vmatrix} = b) x + y + z$ int of x in the expansion b) $\frac{80}{9}$ tween cities A and B and A to C and return by di b) 480 $c^2 + 2hxy + by^2 + 2g$ b) $g^2 = ac$	c) $1 + x + y + z$ a of $\left(2x + \frac{1}{3x}\right)^6$ is: c) $\frac{160}{27}$ and 4 roads between citation fferent roads? c) 156 $gx + 2fy + c = 0$ interval of $f^2 + g^2 = 1$	d) 0 d) $\frac{80}{3}$ des B and C. In how many ways can d) 400 rsect on y-axis, then: d) $af + bg = c$
88) 89) 90) 91)	a) $4xyz$ The term independent a) $\frac{160}{9}$ There are 5 roads beto a person drive from <i>x</i> a) 240 If the pair of lines <i>ax</i> a) $f^2 = bc$ If $2x - 3y = 0$ is the second seco	$\begin{vmatrix} y & y^2 & 1 + y^3 \\ z & z^2 & 1 + z^3 \end{vmatrix} = b) x + y + z$ nt of x in the expansion b) $\frac{80}{9}$ tween cities A and B and A to C and return by di b) 480 $x^2 + 2hxy + by^2 + 2g$ b) $g^2 = ac$ he equation of common	c) $1 + x + y + z$ a of $\left(2x + \frac{1}{3x}\right)^6$ is: c) $\frac{160}{27}$ and 4 roads between citation fferent roads? c) 156 gx + 2fy + c = 0 interval c) $f^2 + g^2 = 1$ on chord of the circle	d) 0 d) $\frac{80}{3}$ tes B and C. In how many ways can d) 400 rsect on y-axis, then: d) $af + bg = c$ $x^2 + y^2 + 4x = 0$ and $x^2 + y^2 + 1$
88) 89) 90) 91)	a) $4xyz$ The term independent a) $\frac{160}{9}$ There are 5 roads bet a person drive from $\lambda$ a) $240$ If the pair of lines $ax$ a) $f^2 = bc$ If $2x - 3y = 0$ is the $2\lambda y = 0$ , then the ya	$\begin{vmatrix} y & y^2 & 1 + y^3 \\ z & z^2 & 1 + z^3 \end{vmatrix} = b) x + y + z$ int of x in the expansion b) $\frac{80}{9}$ tween cities A and B an A to C and return by di b) 480 $x^2 + 2hxy + by^2 + 2g$ b) $g^2 = ac$ he equation of commo- lue of $\lambda$ is equal to:	c) $1 + x + y + z$ a of $\left(2x + \frac{1}{3x}\right)^6$ is: c) $\frac{160}{27}$ and 4 roads between citation fferent roads? c) 156 gx + 2fy + c = 0 inter c) $f^2 + g^2 = 1$ on chord of the circle	d) 0 d) $\frac{80}{3}$ ties B and C. In how many ways can d) 400 rsect on y-axis, then: d) $af + bg = c$ $x^2 + y^2 + 4x = 0$ and $x^2 + y^2 + 1$
88) 89) 90) 91)	a) $4xyz$ The term independent a) $\frac{160}{9}$ There are 5 roads be a person drive from $\lambda$ a) 240 If the pair of lines $ax$ a) $f^2 = bc$ If $2x - 3y = 0$ is the $2\lambda y = 0$ , then the variable of $2\lambda y = 0$ , then the variable of $\lambda y = 0$ .	a $\begin{vmatrix} y & y^2 & 1 + y^3 \\ z & z^2 & 1 + z^3 \end{vmatrix}$ b) $x + y + z$ b) $x + y + z$ at of x in the expansion b) $\frac{80}{9}$ tween cities A and B an A to C and return by di b) 480 $x^2 + 2hxy + by^2 + 2g$ b) $g^2 = ac$ he equation of commo- due of $\lambda$ is equal to: b) 1	c) $1 + x + y + z$ a of $\left(2x + \frac{1}{3x}\right)^6$ is: c) $\frac{160}{27}$ and 4 roads between citat fferent roads? c) 156 gx + 2fy + c = 0 inte c) $f^2 + g^2 = 1$ on chord of the circle c) 2	d) 0 d) $\frac{80}{3}$ des B and C. In how many ways can d) 400 rsect on y-axis, then: d) $af + bg = c$ $x^2 + y^2 + 4x = 0$ and $x^2 + y^2 + d$ d) 3
<ul> <li>88)</li> <li>89)</li> <li>90)</li> <li>91)</li> <li>92)</li> </ul>	a) $4xyz$ The term independent a) $\frac{160}{9}$ There are 5 roads beto a person drive from $\lambda$ a) $240$ If the pair of lines $ax$ a) $f^2 = bc$ If $2x - 3y = 0$ is the $2\lambda y = 0$ , then the variable of an expression of an expression of the second s	$\begin{vmatrix} y & y^2 & 1 + y^3 \\ z & z^2 & 1 + z^3 \end{vmatrix} = b) x + y + z$ nt of x in the expansion b) $\frac{80}{9}$ tween cities A and B and A to C and return by di b) 480 $x^2 + 2hxy + by^2 + 2g$ b) $g^2 = ac$ he equation of common lue of $\lambda$ is equal to: b) 1	c) $1 + x + y + z$ a of $\left(2x + \frac{1}{3x}\right)^6$ is: c) $\frac{160}{27}$ and 4 roads between cities fferent roads? c) 156 gx + 2fy + c = 0 inter c) $f^2 + g^2 = 1$ on chord of the circler c) 2 tance between the foci	d) 0 d) $\frac{80}{3}$ tes B and C. In how many ways can d) 400 rsect on y-axis, then: d) $af + bg = c$ $x^2 + y^2 + 4x = 0$ and $x^2 + y^2 + d$ d) 3 is 8 units and the distance between
<ul> <li>88)</li> <li>89)</li> <li>90)</li> <li>91)</li> <li>92)</li> </ul>	a) $4xyz$ The term independent a) $\frac{160}{9}$ There are 5 roads bet a person drive from $x$ a) $240$ If the pair of lines $ax$ a) $f^2 = bc$ If $2x - 3y = 0$ is the $2\lambda y = 0$ , then the variable a) 0 The equation of an expected by the directrices is 18 between the	$\begin{vmatrix} y & y^2 & 1 + y^3 \\ z & z^2 & 1 + z^3 \end{vmatrix} = b) x + y + z$ not of x in the expansion b) $\frac{80}{9}$ tween cities A and B and A to C and return by di b) 480 $x^2 + 2hxy + by^2 + 2g$ b) $g^2 = ac$ the equation of common lue of $\lambda$ is equal to: b) 1 llipse in which the distingties and its axes being	c) $1 + x + y + z$ a of $\left(2x + \frac{1}{3x}\right)^6$ is: c) $\frac{160}{27}$ and 4 roads between citil fferent roads? c) 156 gx + 2fy + c = 0 inte c) $f^2 + g^2 = 1$ on chord of the circle c) 2 tance between the foci the same as the co-ord	d) 0 d) $\frac{80}{3}$ ies B and C. In how many ways can d) 400 rsect on y-axis, then: d) $af + bg = c$ $x^2 + y^2 + 4x = 0$ and $x^2 + y^2 + d$ d) 3 is 8 units and the distance between linate axes is:
88) 89) 90) 91) 92)	a) $4xyz$ The term independent a) $\frac{160}{9}$ There are 5 roads be a person drive from $A$ a) $240$ If the pair of lines $ax$ a) $f^2 = bc$ If $2x - 3y = 0$ is the $2\lambda y = 0$ , then the variant of $A$ a) $0$ The equation of an end the directrices is 18 the $2\lambda x^2 + \frac{y^2}{2} = 4$	a $\begin{vmatrix} y & y^2 & 1 + y^3 \\ z & z^2 & 1 + z^3 \end{vmatrix}$ b) $x + y + z$ at of x in the expansion b) $\frac{80}{9}$ tween cities A and B an A to C and return by di b) 480 $x^2 + 2hxy + by^2 + 2g$ b) $g^2 = ac$ he equation of commodule of $\lambda$ is equal to: b) 1 llipse in which the dist units and its axes being	c) $1 + x + y + z$ a of $\left(2x + \frac{1}{3x}\right)^6$ is: c) $\frac{160}{27}$ and 4 roads between citat fferent roads? c) 156 gx + 2fy + c = 0 inter c) $f^2 + g^2 = 1$ on chord of the circle c) 2 tance between the foci is the same as the co-order c) $\frac{x^2}{2} + \frac{y^2}{2} = 1$	d) 0 d) $\frac{80}{3}$ des B and C. In how many ways can d) 400 rsect on y-axis, then: d) $af + bg = c$ $x^2 + y^2 + 4x = 0$ and $x^2 + y^2 + d$ d) 3 is 8 units and the distance between linate axes is: $y^{x^2} + y^2 = 4$
88) 89) 90) 91) 92)	a) $4xyz$ The term independent a) $\frac{160}{9}$ There are 5 roads beto a person drive from $x$ a) $240$ If the pair of lines $ax$ a) $f^2 = bc$ If $2x - 3y = 0$ is the $2\lambda y = 0$ , then the value of $2\lambda y = 0$ , the value of	a $\begin{vmatrix} y & y^2 & 1 + y^3 \\ z & z^2 & 1 + z^3 \end{vmatrix}$ b) $x + y + z$ at of x in the expansion b) $\frac{80}{9}$ tween cities A and B an A to C and return by di b) 480 $x^2 + 2hxy + by^2 + 2g$ b) $g^2 = ac$ he equation of common lue of $\lambda$ is equal to: b) 1 ellipse in which the dist units and its axes being b) $\frac{x^2}{36} + \frac{y^2}{25} = 1$	c) $1 + x + y + z$ a of $\left(2x + \frac{1}{3x}\right)^6$ is: c) $\frac{160}{27}$ and 4 roads between cities fferent roads? c) 156 gx + 2fy + c = 0 inter c) $f^2 + g^2 = 1$ on chord of the circler c) 2 tance between the foci is the same as the co-ord c) $\frac{x^2}{24} + \frac{y^2}{12} = 1$	d) 0 d) $\frac{80}{3}$ tes B and C. In how many ways can d) 400 rsect on y-axis, then: d) $af + bg = c$ $x^2 + y^2 + 4x = 0$ and $x^2 + y^2 + d$ d) 3 is 8 units and the distance between linate axes is: d) $\frac{x^2}{25} + \frac{y^2}{40} = 1$
<ul> <li>88)</li> <li>89)</li> <li>90)</li> <li>91)</li> <li>92)</li> <li>93)</li> </ul>	a) $4xyz$ The term independent a) $\frac{160}{9}$ There are 5 roads beto a person drive from $A$ a) $240$ If the pair of lines $ax$ a) $f^2 = bc$ If $2x - 3y = 0$ is the $2\lambda y = 0$ , then the variable a) 0 The equation of an expected the directrices is 18 to a) $\frac{x^2}{36} + \frac{y^2}{20} = 1$ If P(2,3,5), Q(-1,3,2)	a $\begin{vmatrix} y & y^2 & 1 + y^3 \\ z & z^2 & 1 + z^3 \end{vmatrix}$ b) $x + y + z$ at of x in the expansion b) $\frac{80}{9}$ tween cities A and B an A to C and return by di b) 480 $x^2 + 2hxy + by^2 + 2g$ b) $g^2 = ac$ he equation of commo- lue of $\lambda$ is equal to: b) 1 ellipse in which the dist units and its axes being b) $\frac{x^2}{36} + \frac{y^2}{25} = 1$ and R(3,5,-2) are the y	c) $1 + x + y + z$ a of $\left(2x + \frac{1}{3x}\right)^6$ is: c) $\frac{160}{27}$ and 4 roads between citil fferent roads? c) 156 gx + 2fy + c = 0 inte c) $f^2 + g^2 = 1$ on chord of the circle c) 2 tance between the foci g the same as the co-ord c) $\frac{x^2}{24} + \frac{y^2}{12} = 1$ vertices of the $\Delta$ PQR, f	d) 0 d) $\frac{80}{3}$ des B and C. In how many ways can d) 400 rsect on y-axis, then: d) $af + bg = c$ $x^2 + y^2 + 4x = 0$ and $x^2 + y^2 + d$ d) 3 is 8 units and the distance between linate axes is: d) $\frac{x^2}{25} + \frac{y^2}{40} = 1$ then dc's of the side QR is:

94)	Which of the following set of quantum numbers is correct for an electron in 4f- orbital?		
	a) $n = 4, l = 3, m = +1, s = +\frac{1}{2}$	b) $n = 4, l = 4, m = -4, s = -\frac{1}{2}$	
	c) $n = 4, l = 3, m = +4, s = +\frac{1}{2}$	d) $n = 3, l = 2, m = -2, s = -\frac{1}{2}$	
95)	Identify Z in the following series:	_	
	$C_2H_5I \xrightarrow{\text{dic.KOR}} X \xrightarrow{\text{B}T_2} Y \xrightarrow{\text{KCN}} Z$		
	a) Br-CH <sub>2</sub> -CH <sub>2</sub> -CN	b) CH <sub>3</sub> -CH <sub>2</sub> -CN	
	c) CN-CH <sub>2</sub> -CH <sub>2</sub> -CN	d) Br-CH=CH-CN	
96)	The IUPAC name of $CH_3C \equiv CCH(CH_3)_2$ is:		
	a) 4-Methylpent-2-yne	b) 4,4-Dimethylbut-2-yne	
	c) Methyl isopropyl acetylene	d) 2-Methylpent-4-yne	
97)	The volume of water required to be added to	0.5 N NaOH solution to prepare 400 ml of 0.1 N NaOH	
	solution?		
	a) 80 ml	b) 320 ml	
	c) 160 ml	d) 200 ml	
98)	2.67 g of a metal chloride on reaction with H	2SO <sub>4</sub> gave 3.42 g of metal sulphate. The equivalent weight	
	of metal is: $2 \times 45$	h) 7	
	a) 4.5	U) / d) 12	
00)	C) 9 The correct order of the following boron hal	(u) 12 idea according to their acidic strength is:	
99)	(i) PE <sub>2</sub> (ii) PC <sub>12</sub>	(iii) PPro (iv) PLo	
	(1) $D\Gamma_3$ (11) $DC_{13}$	(III) DDI3 (IV) DI3 $(IV) DI3$	
	a) (i) > (ii) > (iii) > (iv) c) (ii) > (iii) > (iv) > (i)	d) (iv) > (ii) > (i) > (ii)	
100)	When 0.1 mol $Mn0^{2-}$ is evidized the quer	d) $(1) > (1) > (1)$	
100)	when 0.1 mor $MnO_4$ is oxidized, the quarter $MnO_{-1}$ is	any of electricity required to completely oxidize $MnO_4$	
	0.06500 C	$h) 2 \times 0.6500 C$	
	a) $90300$ C	d) 06 50 C	
	C) 9030 C	u) 90.30 C	

Thank You!!!!!!