

Question	A	B	C	D	ANS
The quantity of charge required to raise its potential by one unit is	Inductance	capacitance	resistance	none	B
A capacitance is connected to a battery of 50 volt,so that a charge of 500 $\mu\text{C}$ is obt	10 $\mu\text{F}$	2 $\mu\text{F}$	500 $\mu\text{F}$	0.1 $\mu\text{F}$	A
The capacity of parallel plate capacitor is 12 $\mu\text{F}$ .what is new capacity if separation b	4 $\mu\text{F}$	3 $\mu\text{F}$	2 $\mu\text{F}$	5 $\mu\text{F}$	B
The capacity of condenser containing air is 4 $\mu\text{F}$ .Find its capacity if air is replaced by	10 $\mu\text{F}$	15 $\mu\text{F}$	20 $\mu\text{F}$	25 $\mu\text{F}$	C
The plates of parallel plate of capacity C1 are moved closer together until they are	$C_2=C_1$	$C_2=2C_1$	$C_2=C_1/2$	$C_2=5C_1$	B
A condenser is charged to a potential of 200V,has the energy of 1J, The capacity of	25 $\mu\text{F}$	50 $\mu\text{F}$	75 $\mu\text{F}$	30 $\mu\text{F}$	B
Find equivalent capacitance if four capacitors of 4 $\mu\text{F}$ are connected in parallel	16 $\mu\text{F}$	1 $\mu\text{F}$	4 $\mu\text{F}$	8 $\mu\text{F}$	A
Find equivalent capacitance if four capacitors of 4 $\mu\text{F}$ are connected in series	16 $\mu\text{F}$	1 $\mu\text{F}$	4 $\mu\text{F}$	8 $\mu\text{F}$	B
Capacitance of a condenser is inversly proportional to	area of plates	dielectric material	distance betw	current through	C
Capacitance of a condenser is given by	$C=QV$	$C=Q/V$	$C=V/Q$	none of these	B
If number of capacitors are connected in parallel,then effective capacitance	increases	decreases	remains same	or decreases	A
E.M.F. of a cell is defined as potential difference between two terminals of a cell v	circuit is closed	circuit is open	high current is	none of these	B
If area of metal plates of capacitor is doubled,then capacitance will be	C	2C	3C	C/2	B
If distance between metal plates of capacitor is doubled,then capacitance will be	C	2C	3C	C/2	D
If three capacitors of capacitance 'C'are connected in series,then capacitance will b	C	C/2	C/3	3C	C
Two capacitors of 50 $\mu\text{F}$ are connected in parallel.the combination is connected in s	10 $\mu\text{F}$	125 $\mu\text{F}$	50 $\mu\text{F}$	150 $\mu\text{F}$	C
A resistance of 10 ohm is connected in series with a cell of e.m.f 4V and internal re	0.48A	0.38A	3.81A	3.18A	B
If a battery of e.m.f 12V is connected across a resistance of 120 $\Omega$ and potentail					
drop observed across a resistance is 11.8 V,Calculate internal resistance of cell	2.075ohm	.02 ohm	.01ohm	.02ohm	A
The algebric sum of currents at junction point in any electric circuit is equal to	zero	infinity	both	none of these	A
The resistance offered by electrolyte solution of a cell is	impedance	external resistance	internal resist	reactance	C
The mathematical equation of Kirchhoff's current law (first law) is	$\sum I=0$	$\sum E=0$	$\sum IR=0$	$\sum IR+ \sum \epsilon$	A
The mathematical equation of Kirchhoff's voltage law (second law) is	$\sum I=0$	$\sum E=0$	$\sum IR=0$	$\sum IR=\sum \epsilon$	D
The meter bridge is a modification of	Wheatstone's netwo	potiometer	galvanometer	speedometer	A
The meter bridge is used to	determine unknown	measure current	measure p.d.	all of these	A
In poteitiometer ,p.d. across potetiometer wire is directly proportional to	length	area	resistance	none of	A
$E_1/E_2 =$	$L_1/L_2$	$L_2/L_1$	$L_1 \times L_2$	$L_1+L_2$	A
The unit of potential gradient is	V.cm	V/m	ohm.cm	ohm.m	B
Potentiometer is used to	measure e.m.f of a c	compare e.m.f of tv	determine int	all of these	D
The balancing condition for a Wheatstone's network with R1,R2,R3,R4 in cyclic ord	$R_1/R_2=R_3/R_4$	$R_1/R_2=R_4/R_3$	$R_1/R_4==R_3/R_2$	$R_1R_2==R_3R_4$	B
In a potiometer experiment, the null point is obtained at 140 cm for a cell of e.m.f	0.8V	1.8V	2.8V	3.8V	B

Radioactivity is due to	stable electronic con	unstable nuclei	unstable elect	stable nuclei	B
Radioactivity is a	spontaneous pheno	Nuclear phenome	production of	both a and b	D
The alpha particles are same as	helium nuclei	gas atom	ionised atom	carbon nuclei	A
The particles are deflected by electric and magnetic field are	Alpha and Gamma	Beta and Gamma	Alpha and Beta	all of these	C
Beta rays are	positively charged	negatively charged	neutral	all the above	B
Which of the following is same as electron	Alpha rays	Beta rays	Gamma rays	x-rays	B
Which of the following have high ionising power	Alpha rays	Beta rays	Gamma rays	all the above	A
Which rays have high penetrating power	Alpha rays	Beta rays	Gamma rays	all the above	C
The velocity of gamma rays is-----velocity of alpha rays and beta rays	greater than	smaller than	equal to	zero as compared	A
Decay constant-----	$(dN/dt)/N$	$N/(dN/dt)$	$N \times (dN/dt)$	all are wrong	A
Decay constant depends on	Nature of substance	temperature	pressure	both B and C	A
Rays which are deflected towards positive plate are	Alpha rays	Beta rays	Gamma rays	x-rays	<b>B</b>
Rays which are deflected towards negative plate are	Alpha rays	Beta rays	Gamma rays	x-rays	A
Which of the following element is not a radioactive element	Uranium	Radium	Thorium	Calcium	D
All naturally occurring elements whose atomic numbers are greater than -----	12	32	52	82	D
Doubly ionised helium atoms are	Alpha particles	Beta particles	Gamma particles	photons	A
Gamma rays are	positively charged	negatively charged	neutral	non of these	C
Alpha rays have	one negative charge	one positive charge	two negative charges	two positive charges	D
Half life period= $T_{1/2}$ =	$0.693/\lambda$	$\lambda/0.693$	$0.693/N$	$N/0.693$	A
The particles which are undeflected by electric and magnetic field are	Alpha rays	Beta rays	Gamma rays	x-rays	C
The frequency of ultrasonic wave is	More than 20 kHz	Less than 20 Hz	200 Hz	20 Hz to 20 kHz	A
Sounds of frequency higher than 20,000 Hz which are inaudible to normal human ear are called	noise	frequency	ultrasonics	amplitude	C
SONAR is abbreviation of	small navigation and random	sky navigation and ranging	sun nuclear ranging	sound navigation and ranging	B
Which of the following effects can be used to produce ultrasonic waves?	Magnetostriction effect	Doppler Effect	Magnetic effect	Sound effect	A
When is ultrasonic waves produced using piezo electric oscillator?	At constant temperature	At resonance	At constant pressure	At constant voltage	B

What is the other name for ultrasonic flaw detector?	Destructive testing	Magnetostrictive testing	Non-destructive testing	Echo testing	C
Identify the correct relation between velocity, frequency and wavelength.	$n = v\lambda$	$v = n\lambda$	$v = n/\lambda$	$v = \lambda/n$	B
Which of the following is natural piezoelectric materials?	quartz	tourmaline	rochelle salt	all of these	D
Ultrasonic waves have	high frequency	high energy	low wavelength	all of these	D
Find the frequency of wave having velocity 300m/s and wavelength 0.3m	100Hz	1000Hz	10Hz	10000Hz	B
Detection of flaws, drilling, cutting cleaning, welding, SONAR, are examples of	Ultrasonic waves	Doppler Effect	Radioactivity	None of these	A
Which of the following statement is not true?	When the observer moves away from the stationary source, then the pitch of sound decreases	When the observer moves towards the stationary source, then the pitch of sound increases	When the source moves away from stationary observer then the pitch of the sound decreases	When the source moves towards the stationary observer then the pitch of the sound decreases	D
The distance between two successive compressions or rarefactions is called	period	frequency	amplitude	wavelength	D
The time required to complete one oscillations is called	period	frequency	amplitude	wavelength	A
Total no of oscillations per second is called	period	frequency	amplitude	wavelength	B

