

	Sr. No	questions	option A	option B	option C	option D	answers
Paper 1	1	A body is moving along a straight path. What will happen to the body in the absence of an external field?	It will stop	It will move with the same speed in a different path	It will move with the same speed along the same straight path	It will move with a reduced speed along the same path	3
	2	A person is standing in a bus. When the bus starts moving forward suddenly _____	The person moves forward	The person remains stationary	The person is unaffected	The person moves backward	4
	3	The breaking stress of a wire depends upon _____	Length of the wire	Radius of the wire	Material of the wire	Shape of the cross-section	3
	4	The Bernoulli's equation in fluid dynamics is valid for _____	Compressible flows	Transient flows	Continuous flows	Viscous flows	3
	5	What is the power of lens?	Reciprocal of R	Reciprocal of C	Reciprocal of f	Equal to f	3
Paper 2	6	Nucleus consists of two sub-particles known as?	Nucleotides	Nucleons	Neutrons	Nucleosides	2
	7	Number of protons in the nucleus is called _____	Atomic number	Mass number	Electric charge	Periodic number	1
	8	The total number of nucleons in the nucleus is called _____	Atomic number	Mass number	Electric charge	Periodic number	2
	9	What is the time during which one half of a number of radioactive species decays or one half of their activity ceases?	Half Life	Super critical state	Semi life	Critical life	1
	10	Combining of two light nuclei of low mass to produce a heavy nucleus is called _____	Nuclear fusion	Nuclear fission	Spontaneous fission	Double beta decay	1

Sr. No.	Questions	Option A	Option B	Option C	Option D	Answers
paper 2						
1	Divergence and Curl of a vector field are _____	Scalar & Scalar	Scalar & Vector	Vector & Vector	Vector & Scalar	2
2	A vector field with a vanishing curl is called as _____	Irrrotational	Solenoidal	Rotational	Cycloidal	1
3	A vector field which has a vanishing divergence is called as _____	Solenoidal field	Rotational field	Hemispheroidal field	Irrrotational field	1
4	RC phase shift oscillators contain a minimum of _____ Phase shift network.		1	2	3	0
5	One phase shift network of an RC phase shift oscillator contain _____ capacitor.		1	2	3	0
paper 3						
6	Which of the following is a unique property of laser?	Directional	Speed	Coherence	Wavelength	3
7	Which of the following is an example of optical pumping?	Ruby laser	Helium-Neon laser	Semiconductor laser	Dye laser	1
8	Which of the following can be used for the generation of laser pulse?	Ruby laser	Carbon dioxide laser	Helium neon laser	Nd- YAG laser	4
9	Lead is a metallic crystal having a _____ structure	FCC	BCC	HCP	NONE OF HE	1
10	Which of the following has a HCP crystal structure?	W	Mo	Cr	Zr	4

Sr. No	Questions	Option A	Option A	Option A	Option A	Answers
paper 2						
1	The walls of a particle in a box are supposed to be _____	a) Small but infinitely hard	b) Infinitely large but soft	c) Soft and Small	d) Infinitely hard and infinitely large	4
2	The wave function of the particle lies in which region?	a) $x > 0$	b) $x < 0$	c) $0 < x < L$	d) $x > L$	3
3	For a particle inside a box, the potential is maximum at $x =$ _____	a) L	b) $2L$	c) $L/2$	d) $3L$	1
4	Which of the following can be a wave function?	a) $\tan x$	b) $\sin x$	c) $\cot x$	d) $\sec x$	2
5	Which of the following is not a characteristic of wave function?	a) Continuous	b) Single valued	c) Differentiable	d) Physically Significant	4
paper 3						
6	The property of a mineral by virtue of which it can be cut with a knife is _____	a) Parting	b) Sectile	c) Malleable	d) Ductile	2
7	Mica is _____	a) Flexible	b) Rigid	c) Flexible and elastic	d) Elastic	3
8	When the mineral occurs in flattened or square form, it is called _____	a) Tabular	b) Elongated	c) Botroidal	d) Box	1
9	As the wavelength of the radiation decreases, the intensity of the radiation _____	a) Increases	b) Decreases	c) First increases then decreases	d) First decreases then increases	3
10	The radiations emitted by hot bodies are called as _____	a) X-rays	b) Black-body radiation	c) Gamma radiations	d) Visible light	2