Name:_____	1st YEAR Test Session 2021-22	Physics	Time Allowed: 45 M
Roll#_____ Section:_____	Syllabus: Ch#04	Total Marks: 30	Obt Marks:
Think Positive , Live Happy		Change Thoughts , Change Society	

Q#	A	B	C	D	Q#	A	B	C	D	Q#	A	B	C	D	Q#	A	B	C	D	Q#	A	B	C	D
01.	○	○	○	○	02.	○	○	○	○	03.	○	○	○	○	04.	○	○	○	○	05.	○	○	○	○
06.	○	○	○	○	07.	○	○	○	○	08.	○	○	○	○	09.	○	○	○	○	10.	○	○	○	○

Q. No. 1 **You have four choices for each objective type question as A, B, C and D. The choice which you think is correct, Fill bubble sheet that option. Cutting, Over-writing, using lead pencil and filling more than one circle will result in zero marks in that question. (10x1=10)**

Sr.#	Questions	A	B	C	D
1	A body at rest may have	Speed	Velocity	Momentum	Energy
2	Work done by a force is maximum if the angle b/w **F** and **d** is:	0^0	90^0	120^0	45^0
3	A 1Kg mass has K.E of 1J then its speed is	$1.41ms^{-2}$	1.41ms	$1.41ms^{-1}$	1.41Nm
4	When mass and speed are doubled, then K.E increases	2times	4times	8times	16times
5	Power is a quantity	Vector	Scalar	Drived	Both b & d
6	Non conservative force is	Electric force	Gravitational force	Elastic spring force	None of these
7	The unit of work may be	Nm	Kgm^2s^{-2}	KJ	All of these
8	Kinetic energy of burning of one ton coal is	$30\times10^{9}J$	$30\times10^{19}J$	$30\times10^{-9}J$	$30\times10^{-19}J$
9	The correct equation is	W = K.E	P =F/v	K.E==mv^2	None
10	Conservative force is	Normal force	Frictional force	Elastic spring force	None of these

Q#:2 Answer the Following short Questions (6x2=12)

i.	Define work. In which condition the work done is zero?	**ii.**	State the law of conservation of energy.
iii.	Define conservation field with example.	**iv.**	What is escape velocity? Write its value.
v.	Show that $W = \Delta K.E$	**vi.**	An object has 1J of P.E. explain what does it mean?

Q#:3 Answer the Following short Questions (5+3=8)

(a) Drive the expression for the absolute potential energy.

(b) A force of 400N is required to overcome road friction and air resistance in propelling an automobile at $80Kmh^{-1}$. What power (KW) must be engine develop?