| 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	Which is a vector quantity?	K.E	force	power	Work
2	The unit vector of vector A of magnitude 2 is:	A/2	2/A	2A	$A^2/2$
3	If a force of 20N is acting along x-axis, its y-component is given by:	20N	10N	Zero	5N
4	The vector product of two anti parallel vectors is:	Zero	null vector	1	None
5	If F_x =3N and F_y =4N then the magnitude of resultant vector is:	zero	25N	5N	7N
6	The direction of position vector of point A (0,3) is:	60^0	120^0	90^0	0
7	The SI unit of torque is:	Nm^{-1}	Nm	Kgm^2s^{-2}	A and B
8	The magnitude of vector can never be:	Positive	negative	+ve &- ve	None
9	If Rx and Ry are negative then its direction is	1st quadrant	2nd quadrant	3rd quadrant	4th quadrant
10	A.A is equal	A^2	0	-A	A

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

I.	Can a vector have a component greater than the vector's magnitude?	II.	Find the angle b/w two vectors. A=$5\hat{i} + \hat{j}$ and B= $2\hat{i} + 4\hat{j}$.
III.	Is it possible to add a vector quantity to a scalar quantity?	IV.	Prove that $\hat{i}.\hat{i} = \hat{j}.\hat{j} = \hat{k}.\hat{k} = 1$
V.	Can a body rotate about its centre of gravity under action of its weight?	VI.	Can you add zero to null vector?

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

(a) Write down any five properties of dot and cross product?

(b) Given that A=i-2j+3k and B=3i-4k find the projection of A on B?