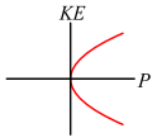
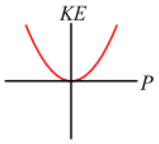
PHYSICS CLASS 11 BATCH

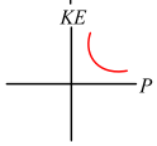
Basic Maths & Calculus

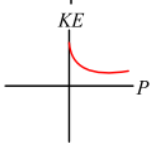
DPP-07

1. If $KE = \frac{P^2}{2m}$ then draw graph between KE and P.

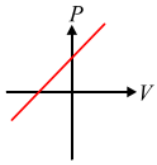
(1) 

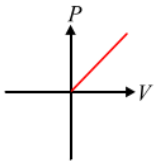
(2) 

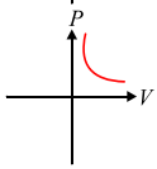
(3) 

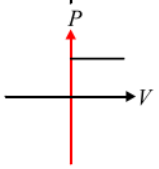
(4) 

2. If Linear momentum $P = mV$ then draw graph between P and V.

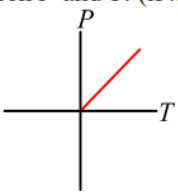
(1) 

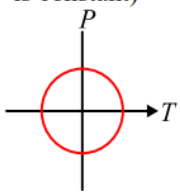
(2) 

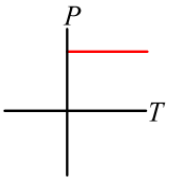
(3) 

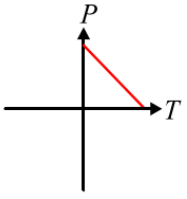
(4) 

3. For ideal gas equation $PV = nRT$ draw graph between P and T. (if n, R, V is constant)

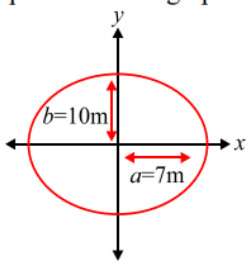
(1) 

(2) 

(3) 

(4) 

4. Write the equation of this graph.



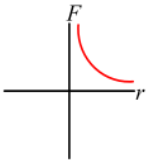
where a = semi major axis and
b = semi minor axis

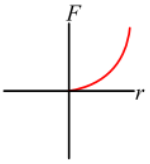
(1) $\frac{x^2}{10^2}+\frac{y^2}{7^2}=1$ (2) $\frac{x^2}{7}+\frac{y^2}{10}=1$

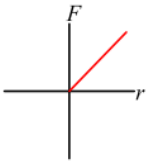
(3) $\frac{x^2}{7^2}+\frac{y^2}{10^2}=1$ (4) $\frac{x^2}{7^2}+\frac{y^2}{10^2}=4$

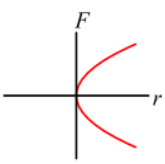
5. If $F = \frac{Gm_1m_2}{r^2}$ then draw graph between F and r.

(where m_1, m_2 and G are constant)

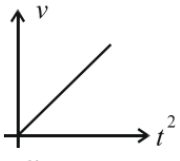
(1) 

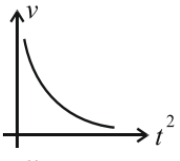
(2) 

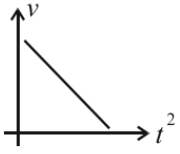
(3) 

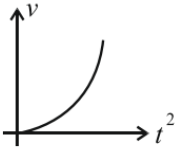
(4) 

6. If velocity v varies with time t as $v = t^2$, then the plot graph between v and t^2 will be given as:

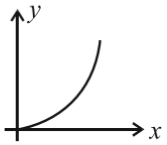
(1) 

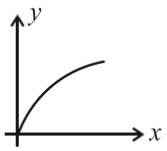
(2) 

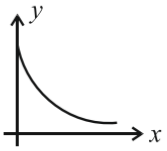
(3) 

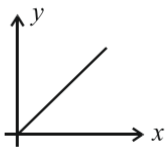
(4) 

7. Which graph is the best representation for the given equation, $y \propto x^2$

(1) 

(2) 

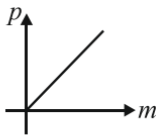
(3) 

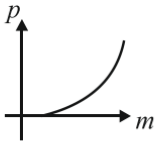
(4) 

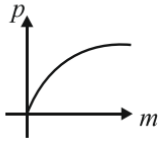
8. The equation $\sqrt{x} = 2y$, represents that graph between x and y is a:

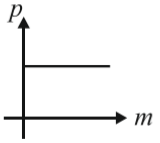
(1) Straight line (2) Parabola
(3) Hyperbola (4) Circle

9. Draw graph between momentum and mass of the object for constant K.E. $\left[P = \sqrt{2mE} = mv\right]$

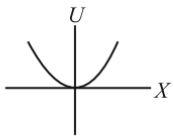
(1) 

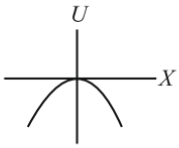
(2) 

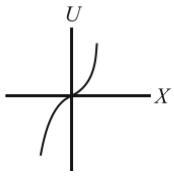
(3) 

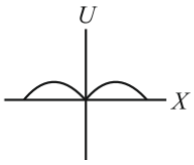
(4) 

10. A body is attached to a spring whose other end is fixed. If the spring is elongated by x, its potential energy is $U = 5x^2$, where x is in metre and U is in joule. U–x graph is

(1) 

(2) 

(3) 

(4) 

ANSWER KEY

1.	(2)	6.	(1)
2.	(2)	7.	(1)
3.	(1)	8.	(2)
4.	(3)	9.	(3)
5.	(1)	10.	(1)