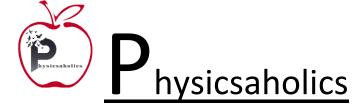




## **DPP - 5**

Video Solution on Website:-	https://physicsaholics.com/home/courseDetails/41
Video Solution on YouTube:-	https://youtu.be/kClwa-XyH2I
	with initial velocity u at some angle $\theta$ has a range R. If the initial ed at the same angle of projection, then the range will be:  (b) R/2 (d) 4R
	with an initial velocity of 100m/s at an angle of 30° above the far from the throwing point will the ball attain its original level?  (b) 486 m (d) 746 m
Q 3. The greatest height which he can throw (a) h/2 (c) 2h	nt to which a man can throw a stone is h. The greatest distance to w it, will be?  (b) h  (d) 3h
	ojectile for a given initial velocity is maximum when the angle of The range will be minimum, if the angle of projection is:  (b) $180^{\circ}$ (d) $75^{\circ}$
	ed from the ground with velocity 25 m/s. Two seconds later, it just high. The angle of projection of the stone is: $(g = 10 \text{ m/s}^2)$ (b) $45^0$ (d) $60^0$
	at for angles of projection of a projectile at angles $(45^0 + \theta)$ and orizontal ranges described by the projectile are in the ratio of:  (b) 1:2 (d) 2:3
	trajectory of a projectile is $y = 10x - \left(\frac{5}{9}\right)x^2$ If we assume $g = \frac{10x}{9}$ (b) 18 (d) 9





- Q 8. A projectile can have the same range R for, two angles of projection at a given speed. If  $T_1$  and  $T_2$  be the times of flight in two cases, then find out relation between  $T_1$ ,  $T_2$ and R:
  - (a)  $R = T_1 T_2 \frac{g}{2}$

(b) R =  $T_1 T_2 \frac{2}{g}$ (d) R =  $\frac{T_1 T_2}{g}$ 

(c)  $T_1 T_2 = \frac{R}{a}$ 

- Q 9. A body is projected with initial velocity of  $(8\hat{i} + 6\hat{j}) m/s$ . The horizontal range is?  $(g = 9.8 \, m/s^2)$ 
  - (a) 9.6 m

(b) 14 m

(c) 50 m

- (d) 19.2 m
- Q 10. If time of flight of a projectile is 10 seconds. Range is 500 m. The maximum height attained by it will be:
  - (a) 50 m

(c) 125 m

- (b) 100 *m* (d) 150 *m*
- Q 11. An aeroplane is flying horizontally with a velocity of 600 km/h at a height of 1960 m. When it is vertically at a point A on the ground, a bomb is released from it. The bomb strikes the ground at point B. The distance AB is:
  - (a) 1200 m

(b) 0.33 km

(c)  $3.33 \, km$ 

(d) 33 km

## **Answer Key**

Q.1) d	Q.2) c	Q.3) c	Q.4) a	Q.5) a
Q.6) c	Q.7) b	Q.8) a	Q.9) a	Q.10) c
Q.11) c		I	L	