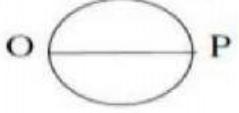


### GRAVITATION

5. In uniform circular motion \_\_\_\_\_ is constant. ( )  
A) Speed B) force C) gravitation D) weight

6. The moon takes \_\_\_\_\_ for a complete revolution around the earth. ( )  
A) 25days B) 27.3days C) 30days D) 35day

4. A particle is moving in a circular path of radius 'r' the displacement after half a circle would be ( )

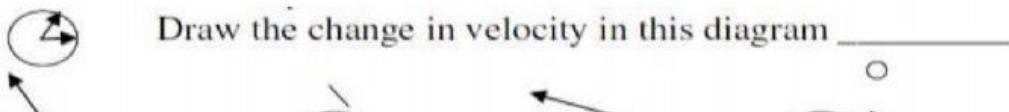


A)  $2r$  B)  $\pi r$  C)  $2\pi r$  D) 0

5. Uniform circular motion is.... ( )

A) Accelerated motion B) Un accelerated motion  
C) uniform motion D) none of these

5. Draw the change in velocity in this diagram ( )



A)  B)  C)  D) 

6. The period of moon around the earth ( )  
A) 2.73days B) 27.3days C) 273days D) 2730days

7. Centripetal acceleration ( $a_c$ ) is equal to ( )  
A)  $\frac{mv^2}{R}$  B)  $\frac{v^2}{R}$  C)  $\frac{mr}{v^2}$  D)  $\frac{R}{v^2}$

8. A particle is moving in a circular path of radius (r), the displacement after half a circle would be ( )  
A) zero B)  $\pi r$  C)  $2r$  D)  $2\pi r$

5. Newton developed the idea of ( )  
A) Gravitation between any two masses B) Gravitation between same masses.  
C) Magnetism between any two masses D) None of these

6. In the expression  $G = \frac{F \cdot d^2}{M_1 \times M_2}$  If  $M_1 = M_2 = 1$  kg,  $d = 1$  mtr then ( )  
A)  $G = F$  B)  $G = 2 F$  C)  $G = F/2$  D)  $G = 3 F$

7. The Formula  $F = G \frac{M_1 M_2}{d^2}$  is Applicable to ( )  
A) Spherical Bodies B) Point Masses  
C) Bodies of any shape D) A&B

8. Universal Gravitational Constant (G) Value is ( )  
A)  $6.67 \times 10^{-11} \text{ N} \cdot \text{m}^2 / \text{kg}^2$  B)  $6.67 \times 10^{-11} \text{ kg}^2 / \text{N} \cdot \text{m}^2$   
C)  $6.65 \times 10^{-12} \text{ N} \cdot \text{m}^2 / \text{kg}^2$  D)  $6.67 \times 10^{-14} \text{ N} \cdot \text{m}^2 / \text{kg}^2$

4. The relation between  $g$  and  $G$  is ---- ( )  
A)  $GR^2/m$  B)  $G/mR^2$  C)  $g = GmR^2$  D)  $g = Gm/R^2$

5. In a vacuum, all free -fall bodies are ----- ( )  
A) Same velocity B) same acceleration C) same force D) same speed