# PHYSICS CLASS 11 BATCH

## DPP-04

**1.** Convert the following in degrees

(i) $\frac{5\pi}{4}$ (ii) $\frac{4\pi}{3}$

(iii) $\frac{\pi}{6}$ (iv) $\frac{3\pi}{2}$

(v) $\frac{\pi}{3}$ (vi) $\frac{5\pi}{3}$

**2.** Convert following into radiant

(i) 45° (ii) 135°

(iii) 60° (iv) 90°

(v) 240° (vi) 120°

**3.** If $\tan\theta = \frac{4}{3}$. Find the value of $\sin\theta$

(1) $\frac{3}{5}$ (2) $\frac{4}{3}$

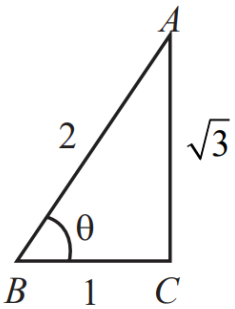
(3) $\frac{4}{5}$ (4) $\frac{5}{4}$

**4.** Find the value of $\sin(90 + \theta)$

(1) $\sin\theta$ (2) $-\sin\theta$

(3) $\cos\theta$ (4) $-\cos\theta$

**5.** Find the angle $\angle ABC$




(1) 0° (2) 60°

(3) 30° (4) 45°

**6.** Find the value of cos 75°

(1) $\frac{\sqrt{3}-1}{2\sqrt{2}}$ (2) $\frac{2\sqrt{2}}{\sqrt{3}-1}$

(3) $\frac{\sqrt{3}}{\sqrt{2}}$ (4) $\sqrt{2}$

**7.** Find the value of cos (330°)

(1) sin 45°

(2) – cos 30°

(3) cos 60°

(4) sin 60°

**8.** If $\frac{\sin\theta+\cos\theta}{\sin\theta-\cos\theta} = \frac{7}{3}$ then find tan θ?

(1) $\frac{3}{5}$ (2) $\frac{5}{2}$

(3) $\frac{5}{3}$ (4) $\frac{2}{5}$

**9.** Which of the following option is correct for the value of sin θ.

(1) 2

(2) $\frac{1}{\sqrt{5}}$

(3) $\sqrt{2}$

(4) $\frac{\sqrt{5}}{2}$

**10.** Which of the following is correct for sin (2θ)

(1) $2\sin\theta \cdot \cos\theta$

(2) $\sin^2\theta$

(3) $\sin^2\theta - \cos^2\theta$

(4) $2\sin\theta$

# ANSWER KEY

**1.** **(i)** **225°** **(ii)** **240°**
**(iii)** **30°** **(iv)** **270°**
**(v)** **60°** **(vi)** **300°**

**2.** **(i)** $\frac{\pi}{4}$ **(ii)** $\frac{3\pi}{4}$
**(iii)** $\frac{\pi}{3}$ **(iv)** $\frac{\pi}{2}$
**(v)** $\frac{4\pi}{3}$ **(vi)** $\frac{2\pi}{3}$

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