

## NAT I Engineering Mathematics

Sr	Questions	Answers Choice
1	In the figure PS is perpendicular to QR, if $PQ = PR = 26$ and $PS = 24$ , then $QR =$	A. 10 B. 20 C. 40 D. 26
2	$120^\circ$ degrees are equal to how many radians?	A. $\pi/3$ radians B. $2\pi/3$ radians C. $\pi/4$ radians D. $\pi/2$ radians
3	The principal value of $\sin^{-1} [\sqrt{3}/2]$ is	A. $\pi/3$ B. $-\pi/3$ C. $2\pi/3$ D. $5\pi/3$
4	If $\sin^{-1} x + \cos^{-1} y = \pi$ , then x and y are	A. Associative angles B. Complementary angles C. Reflex angles D. Supplementary angles
5	$\cos^{-1} (-x) =$ _____.	A. $\pi + \cos^{-1} x$ B. $\pi - \sin^{-1} x$ C. $\pi + \sin^{-1} x$ D. $\pi - \cos^{-1} x$
6	Which of the following is not defined?	A. $\arcsin 1/9$ B. $\text{ArcCos } (-4/3)$ C. $\arctan 11/12$ D. $\text{Arccot } (-4)$
7	$\text{AreCot } \sqrt{3} = ?$	A. $\pi/2$ B. $\pi$ C. $2\pi$ D. $\pi/6$
8	$\sin^{-1} (\sqrt{2}/2) = ?$	A. $\pi/2$ B. $\pi/3$ C. $3\pi/4$ D. $2\pi$
9	$\sin^{-1} \sqrt{3}/2 = ?$	A. $2\pi/3$ B. $\pi/2$ C. $\pi/3$ D. $\sqrt{5}$
10	$\tan(\pi + \tan^{-1} x) = ?$	A. $\tan x$ B. $x$ C. $-x$ D. $\cot^{-1} x$