



# VIDYA BHAWAN, BALIKA VIDYAPITH

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(Affiliated to CBSE up to +2 Level)

CLASS: X

SUB.: MATHS (NCERT BASED)

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12.  $\frac{1 - \cos A}{\sin A}$  is equal to

(a)  $\frac{\sin A}{1 - \cos A}$

(b)  $\frac{\sin A}{1 + \cos A}$

(c)  $\frac{\cos A}{1 - \cos A}$

(d)  $\frac{\cos A}{1 + \cos A}$

13. If  $x = a \cos \theta$  and  $y = b \sin \theta$ , then  $b^2x^2 + a^2y^2 =$

(a)  $ab$

(b)  $b^2 + a^2$

(c)  $a^2b$

(d)  $a^4b^4$

14. What is the maximum value of  $\sec A$ ?

(a) 0

(b) 1

(c) 12

(d) 2

15. What is the minimum value of  $\sin A$ ,  $0 \leq A \leq 90^\circ$

(a) -1

(b) 0

(c) 1

(d) 12

16. What is the minimum value of  $\cos \theta$ ,  $0 \leq \theta \leq 90^\circ$

(a) -1

(b) 0

(c) 1

(d) 12

17. Given that  $\sin \theta = \frac{a}{b}$ , then  $\tan \theta =$

(a)  $\frac{b}{\sqrt{b^2 - a^2}}$

(b)  $\frac{\sqrt{b^2 - a^2}}{b}$

(c)  $\frac{a}{\sqrt{b^2 - a^2}}$

(d)  $\frac{\sqrt{b^2 - a^2}}{a}$

18. If  $\cos 9A = \sin A$  and  $9A < 90^\circ$ , then the value of  $\tan 5A$  is

(a) 0

(b) 1

(c)  $1/\sqrt{3}$

(d)  $\sqrt{3}$

19. If in  $\Delta ABC$ ,  $\angle C = 90^\circ$ , then  $\sin(A + B) =$

(a) 0

(b)  $\frac{1}{2}$

(c)  $1/\sqrt{2}$

(d) 1

20. If  $\sin A - \cos A = 0$ , then the value of  $\sin^4 A + \cos^4 A$  is

(a) 2

(b)  $1/2$

(c)  $3/4$

(d) 12