**ASSIGNMENT (2020-21)**

**CLASS - X SUBJECT – MATHEMATICS**

**CH- 8(INTRODUCTION TO TRIGONOMETRY)**

1. (sin30° + cos30°) – (sin 60° + cos60°)

(A) – 1 (B) 0 (C) 1 (D) 2

1. Value of tan30°/cot60° is:

(A) 1/√2 (B) 1/√3 (C) √3 (D) 1

1. The value of sin θ and cos (90° – θ)

(A) Are same (B) Are different (C) No relation (D) Information insufficient

1. If cos A = 4/5, then tan A =?

(A) 3/5 (B) 3/4 (C) 4/3 (D) 4/5

1. The value of the expression [cosec (75° + θ) – sec (15° - θ) – tan (55° + θ) + cot (35° - θ)] is

(A) 1 (B) −1 (C) 0 (D) 1/2

1. If sin θ + sin2 θ = 1, find cos4 θ + cos2 θ
2. In XYZ, ∠X = 90°, ∠Z = 45° If XY = 12 cm find YZ and XZ.
3. Prove that : (sin6 θ + cos6 θ) = 1 – 3 sin2 θ cos2 θ
4. Prove that : https://www.entranceindia.com/wp-content/uploads/2016/03/166.png
5. tan x= sin 45°cos45°+sin 30°, Find x.
6. Prove that : https://www.entranceindia.com/wp-content/uploads/2016/03/111.png
7. Find value of https://www.entranceindia.com/wp-content/uploads/2016/03/123.png
8. Prove that : https://www.entranceindia.com/wp-content/uploads/2016/03/86.png
9. If cot2θ = 1 – a2 prove that cosec θ + cot3θ secθ = (2 – a2)3/2
10. If cosec θ + cotθ = p, then show that https://www.entranceindia.com/wp-content/uploads/2016/03/7-10.png