**Self-Assignment – 1**

**Topic: Trigonometry**

**Class: 10th Max. Marks: 25**

**Answer the following. Each question carry ½ mark. 10 × ½ = 5M**

1. If tan θ = then find the value of 1 + cos θ?
2. Express cos θ in terms of tan θ?
3. Is it correct sin θ = cos (900 – θ)? Why?
4. Evaluate cosec 390. Sec 510 – tan 510. Cot 390?
5. If 3 cos A – 4 sin A = 0, then find tan A?
6. Give **∠**A = 750 and **∠**B = 300 then find tan (A – B)?
7. Given cosec (900 – A) = then what is the value of sec A?
8. Find the value of sin² A + sin² (900 – A)?
9. Evaluate sin 150. Sec 750?
10. If sin 2A = cos 3A then find tan 5A?

**Answer the following. Each question carries 1 mark 4 × 1 = 4M**

1. Find the value of tan² 450 + 2 tan² 600?
2. If x = sec θ and y = tan θ then find the value of x² - y²?
3. Express tan θ in terms of sin θ?
4. Ranabeer said that sin 100 < cos 100. Can agree with Ranabeer? Justify your answer?

**Answer the following. Each question carries 2 mark. 4 × 2 = 8M**

1. Show that = tan θ + cot θ?
2. If sin (A + B) = 1 and cos (A – B) = , 00 < A + B < 900 and A > B, find A and B?
3. If cos A = then find sin A and cot A?
4. If sec 5A = cosec (A + 360), where 5A is an acute angle, find the value of A?

**Answer the following. Each question carries 4 marks 2 × 4 = 8M**

1. If Sec θ + tan θ = p then prove that sin θ =?

Or

Prove that (1 + tan² θ) + = ?

1. If cosec θ + cot θ = k, then write all trigonometric ratios at θ in terms of ‘k’?

Or

Write all trigonometric ratios in terms of cosec θ?