Section A (10 Marks)

1. **Define trigonometric ratios: sine, cosine, and tangent.**
2. **If $\sin\theta = 3/5$, find the values of $\cos\theta$ and $\tan\theta$.**
3. **Prove that $1 + \tan^2\theta = \sec^2\theta$.**
4. **Evaluate: $\sin 30° + \cos 60° - \tan 45°$.**
5. **If $\sin\theta = a/b$, find the value of $\cos\theta$ in terms of a and b.**

Section B (10 Marks)

6. **Prove that $(1 + \sin\theta)(1 - \sin\theta) = \cos^2\theta$.**
7. **Prove that $(\sec^2\theta - 1)(\text{cosec}^2\theta - 1) = 1$.**
8. **If $\tan\theta = 4/3$, find the value of $(\sin\theta + \cos\theta) / (\sin\theta - \cos\theta)$.**
9. **A ladder 10 m long reaches a window 8 m above the ground. Find the angle of elevation of the ladder.**
10. **The angle of elevation of the top of a tower from a point on the ground, which is 30 m away from the foot of the tower, is 30°. Find the height of the tower.**