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| Obtain Mark: | **Trigonometry** | Time: 50 min |
| **Date**: 08/08/2024 | Total Mark: 96 |

1. If A+B+C= 𝜋 prove that, cotBcotC+cotCcotA+cotACotB = 1. **(08)**
2. If **x=10** prove that, = **. (08)**
3. Prove it,(cosθ+isinθ)3 = cos3θ+isin3θ, when I =**. (08)**
4. If sinθ= prove that, tan( − ) = ±. **(08)**
5. Prove that,  **+**  = **. (08)**
6. If sinα = prove that, = . **(08)**
7. If tan**=** tanshow that, sec= . **(08)**
8. If x=5 prove it , - = 4 **(08)**
9. If **=** and cos **=** kcos**,** then prove that, tan ()= cot **. (08)**
10. If  **= cosecB+secB,** then show that, tanA.tanB = cot ()**. (08)**
11. Given, tan =tan3 and **tanΦ=2tanα** now prove it , θ+Φ=2α. **(08)**
12. Evaluate:  **+**  + + . **(08)**