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**D.K.M. COLLEGE FOR WOMEN (AUTONOMOUS), VELLORE-1**

 **SEMESTER EXAMINATIONS**

 **NOVEMBER - 2018 15CMA1B / CMA1B**

 **TRIGONOMETRY**

**Time : 3 Hours Max. Marks : 75**

**Section – A (10 x 2 = 20)**

**Answer ALL the questions.**

1. *Expand in powers of and .*
2. *Expand in terms of*
3. *Write down the expansion of in terms of*
4. *Find .*
5. *Prove : .*
6. *Prove :*
7. *Find*
8. *Show that where n is an integer.*
9. *Sum to infinity the series :*
10. *Write down the Gregory’s series.*

**Section – B ( 5 x 5 = 25 )**

**Answer any Five of the following questions.**

1. *Expand in terms of .*
2. *Show that*
3. *Prove :*
4. *Separate into real and imaginary parts :*
5. *If show that*
6. *Find the value of*
7. *Sum to infinity the series*
8. *Find the sum to n terms of the series:*

**Section – C ( 3 x 10 = 30 )**

**Answer ALL the questions.**

1. *(a) Prove :*

*(Or)*

*(b) Prove :*

1. *(a) i) If prove that .*

 *ii) If show that is equal to 1058’ nearly.*

*(Or)*

 *(b) If show that*

 *(i) (ii) .*

1. *(a) If show that i)*

 *ii) .*

*(Or)*

 *(b) Prove that*

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