**MINEDUC . DATE: 19-04-2020**

**KICUKIRO DISTRICT.**

**NYARUGUNGA SECTOR . CLASSES S5( MPC,MCB,PCM and MEG)**

**ECOLE SECONDAIRE KANOMBE/EFOTEC.**

**MATHEMATICS QUESTIONS RELATED TO SINIOR FIVE CLASSES**

**PAPER 3**

**Q1**.

**Q2**.

**Q3.**

**Q4.**

**Q5**.

**Q6**

**Q7.**

**Q8**.

**Q9**.

**Q10**.

**Q11.**

**Q12.**

**Q13**.a) solve in the set of real number

b)by substituting , solve the equation

**Q14**. A) find the domain of definition of the function and interpret the result on a number line

b) solve : i) 2cos+

ii)

**Q15**.Bacteria in a culture increase at the rate of proportional to the number present, and is modelled by the exponential function , where A(t) is the number of bacteria at time t, t is the time taken for bacteria to grow up, and k is the constant of increase.

1. What was the initial bacteria?
2. If the number of bacteria increase from 1000 to 2000.
3. Find the value of the constant k
4. How many bacteria will be present after
5. How long will it take for the population to become 4000?

**Q16**. a) By finding the value of x in terms of variable y, find the inverse of the function

b) Differentiate the following function with respect to the variable x

i)

ii)

**Q17**.a) using the substitution solve the equation

1. By changing into , solve the equation

**END.**