MTS101 PRACTICE QUESTIONS

SECTION A

1. Which of the following is a member of A={x:x^2 - 2 = 0}. a) {} b) 2 c)8 d)10
2. How many subsets are in A if A={a,b,c}. a)4 b)3 c)8 d)10
3. If a set A={1,2,4} and B={2,3,5} find AΔB a){1,2,5} b) {1,3,4,5} c){} d) {1,2,4,5}
4. In a group of FUTA students, 25 of them offers MTS101, 30 of them offers GNS101 and 15 offers both. How many of them offers neither of the two courses. a)25 b)24 c)23 d)27
5. In a survey of 100 randomly chosen artisans, 75 has a TV set, 45 owns a car, 35 owns both a car and a TV set. How many artisan owns either a car or a TV set? a)50 b)20 c)30 d)45

SECTION B

1. find the sum to infinity of the GP 1/3 + 1/9 + 1/27 +.....
a)3/11 b)1/6 c)1/2 d)1/9
2. Express 0.272727 recurring as a fraction
a)3/11 b)3/10 c)3/9 d)3/12
3. An uncle places a sum of money in a savings account for his nephew when he is born, on each succeeding birthday the uncle deposits two times more than the previous birthday, the total sum of the first eleven deposit is N20,480. What was the initial deposit? a)N20 b)N30 c) N40 d)N10
4. Insert three arithmetic mean between 3 and 19. What is the sum of the AP a)45 b)55 c)50 d)40
5. p,q,r are three consecutive terms of an AP whose sum is 18. The ratio of p:r =7 : -1. What is the common difference. a)-6 b)6 c)8 d)-8
6. The sum of the 3rd and 7th term of an AP is 6, their product is 8. what is the common difference of the AP a)1 b)-1 c)1/2 d)-1/2
7. The 6th and 13th terms of an AP are 0 and 14, respectively. What is the sum of the first 20th term. a)180 b)150 c)160 d)200