SUMMERVACATION HOLIDAY HOMEWORK(2021-22)
CLASS X A,C
TOPIC : REAL NO.POLYNOMIAL,LINEAR EQUATION AND QUADRATIC EQUATION

INSTRUCTIONS : STUDENTS YOU HAVE TO SOLVE ALL EXAMPLES OF CHAP 1 (NO. SYSTEM) , CAHP 2 (POLYNOMIAL) ,CHAP 3 (LINEAR EQUATION IN TWO VARIABLES),CHAP 4 (QUADRATIC EQUATION) FROM NCERT BOOK AND FOLLOWING 20 QUESTIONS BASED ON CHAP 1 TO CHAP 4 ON YOUR ONLINE REGISTER .ALONG WITH 3 LAB MANUAL ACTIVITIES ON PRACTICAL NOTEBOOK TOPICS OF WHICH ARE ALSO MENTIONED IN THE LAST.

Q1.If the HCF of 408 and 1032 is expressible in the form 1032 m – 408 x 5, the find m.

Q2.Find the largest positive integers that will divide 398,436 and 542 leaving remainders 7, 11 and 15 respectively.

Q3.Is it possible that two numbers have 12 as their HCF and 350 as their LCM ? Explain

Q4.The HCF of two numbers is 145 and their LCM is 2175. If one number is 725,find the other number.

Q5.Find the value of k for which the following Equations 2x – 3y =7 , (k + 2)x – (2k + 1)y = 3(2k -1) have infinitely many solution.

Q6.Solve Linear Equations : ax + by =a-b   &   bx-ay =a+b .

Q7.Find the LCM and HCF of 40,36 and 126 by prime factorization method.

Q8.Obtain all zeros of the polynomial $2x^4+7X^3-19X^2-14X+30$,if two of its zeros are √2 and -√2.

Q9.Points A and B are 70 km apart on a highway.A car starts from A and another car starts from B Simulataneously.if they travel in the same direction,they meet in 7 hours,but if they travel towardseach other,they meet in 1 hour.Find the speed of the two cars.

Q10.If one zero of the polynomial (k^2 + 4)x^2 + 13x + 4k is reciprocal of the other,then find the value of k.

Q11.If the polynomial $6x^4$ + $8x^3$ + $17x^2$ + 21x +7 is divided by another polynomial $3x^2$ + 4x + 1,the remainders comes out to be ax + b, find a and b.

Q12.One-fourth of a herd of camels was seen in the forest.Twice the square root of the herd had gone to mountain and the remaining 15 camels were seen on the bank of a river.Find the total number of camels.

Q13..The difference of two natural numbers is 3 and the difference of their reciprocals in 3/28.Find the numbers.

Q14.If 2 is a root of the quadratic equation $3x^2$ + px -8=0 and the quadratic equation $4x^2$-2px+k=0 has equal roots,find the value of k.

Q15.Solve for x : 3(3x-1/2x+3)-2(2x+3/3x-1)=5

Q16.Solve for x : $\frac{1}{X+1}$ + $\frac{2}{x+2}$ = $\frac{4}{x+4}$

Q17.Find the value of k for which the quadratic equation $(k+4)x^2$ +(k+1)x +1=0 has equal roots.

. Q18.Students of a class are made to stand in rows.if one student is extra in a row,there would be 2 rows less.if one student is less in a row there would be 3 rows more.Find the number of students in the class.

Q19.The sum of the numerator and denominator of a fraction is 4 more than twice the numerator.if the numerator and Denominator are increased by 3, they are in the ratio 2 : 3. Determine the fraction.

Q20.Abdul travelled 300 km by train and 200 km by taxi, it took him 5 hours 30 minutes. But if he travels 260 km by train And 240 km by taxi he takes 6 minutes longer. Find the speed of the train and that of the taxi.

LAB MANUAL ACTIVITIES

NOTE : YOU HAVE TO COMPLETE 3 ACTIVITIES ON PRACTICAL NOTEBOOK (REGISTER SIZE ONE SIDED BLANK). ACTIVITES NUMBERS AND TOPICS ARE MENTIONED FOLLOWING.
ACTIVITY NO 1. PAIR OF LINEAR EQUATIONS IN TWO VARIABLES.
ACTIVITY NO 2.ARITHMETIC PROGRESSION.
ACTIVITY NO 4. SUM OF FIRST N NATURAL NUMBERS.