N. K. PUBLIC SCHOOL

ARYA NAGAR, MURLIPURA, JAIPUR

SUMMER HOLIDAY HOME WORK : 2024-25

CLASS : X

Hindi -

- अपठित गद्यांश व पद्यांश (एक–एक)
- पत्र लेखन – औपचारिक एवं अनौपचारिक (एक–एक)
- निबन्ध लेखन – राजस्थान के प्रमुख पर्व और त्यौहार
- विज्ञापन लेखन – कोई दो।

English-

- Make a project file of Tenses.

Social Studies-

- Make a project file on four topics including one topic from each part of your book. (3 pages on each topic)
- Do all the maps of your syllabus.

Science-

- Make a project on topic given below-
  - Toll Plaza
  - Energy Conservation
  - Solar System
  - LED Lights
  - Electricity Generation
  - Electric Motor and Generator
  - Light (ON/OFF) system
  - Robot
  - Stair case light system
  - Attendance Counter

Sanskrit-

- Project File- अपठित गद्यांश, श्लोक लेखन, संवाद लेखन, पत्र लेखन, संधि, समास, प्रत्यय, उपसर्ग, अव्यय, संख्या (कोई एक)
- Make 1 sticker related to Indian Culture and Paste it on reader copy.

Mathematics-

- Do the given worksheet based on Ch-1, 2 & 3

Worksheet Based on Ch-1, 2 & 3

Q.1 If 1 is added to both of the numerator and denominator of a fraction, it becomes $\frac{4}{5}$. If however, 5 is subtracted from both numerator and denominator, the fraction $\frac{1}{2}$. Find the fraction.

Q.2 The sum of two numbers is 16 and the sum of their reciprocals is $\frac{1}{3}$. Find the numbers.

Q.3 Solve the following system of equations graphically:
$3x+2y=12,$
$5x-2y=4$

Q.4 Prove that $(2\sqrt{3}-1)$ is an irrational number.

Q.5 Prove that $5\sqrt{2}$ is an irrational number.

Q.6 Prove that $\sqrt{3}$ is an irrational number.

Q.7 A number consisting of two digits is seven times the sum of its digits. When 27 is subtracted from the number, the digits are reversed. Find the number.

Q.8 Two years ago, a man was five times as old as his son. Two years later, his age will be 8 more than three times the ago of the son. Find their present ages.

Q.9 Find the quadratic polynomial whose zeros are $\frac{2}{3}$ and $\frac{-1}{4}$. Verify the relation between the coefficients and the zeros of the polynomial.

Q.10 The present ago of a woman is 3 years more than three times the ages of her daughter. Three years hence, the woman's age will be 10 years more than twice the age of her daughter. Find their present ages.

Q.11 Short Answer Question:

If α and β are the zeroes of a polynomial $f(x)=5x^2-7x+1$, find the value of $\left(\frac{1}{\alpha}+\frac{1}{\beta}\right)$.

Q.12 Solve the following system of equations graphically:
$3x+y+1=0,$
$2x-3y+8=0$

Q.13 Find the zeros of the following quadratic polynomial and verify the relationship between the zeros and the coefficients.
$8x^2-4$

Q.14 The sum of the numerator and denominator of a fraction is 8. If 3 is added to both of the numerator and the denominator, the fraction becomes $\frac{3}{4}$. Find the fraction.

Q.15 Find the quadratic polynomial whose zeros are 2 and –6. Verify the relation between the coefficients and the zeros of the polynomial.

Q.16 Show that any number of the form 4^n, $n \in N$ can never end with the digit 0.

Q.17 Find the zeros of the following quadratic polynomial and verify the relationship between the zeros and the coefficients:
x^2-2x-8

Q.18 The HCF of two numbers is 145 and their LCM is 2175. If one of the numbers is 725, find the other.

Q.19 Solve for x and y:
$2x-y+3=0,$
$3x-7y+10=0$

Q.20 Very short answer question:

Write the zeros of the polynomial x^2-x-6.

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