KRISHNA INTERNATONAL SCHOOL, ALIGARH
HOLIDAY ASSIGNMENT-2018-2019
SUMMER VACATION
CLASS – X

S. No.	SUBJECT	HOLIDAY HOMEWORK
1	**HINDI**	किन्ही चार कवियों का जीवन परिचय दें। प्रत्येक की एक–एक रचना की समीक्षा कीजिए। **नोट– व्याकरण की अभ्यास पुस्तिका में कार्य किया जाय।**
2	**ENGLISH**	1. Old man Ali had faith and love .He was full of hope.He believed that he would be able to hear from his daughter Miriam soon.His boundless faith and infinite patience helped him to face the bitter cold and all those in the post office who made fun of him. Write a paragraph on his faith in God. 2. Write character sketch of Helen Keller and her teacher Miss Anne Sullivan. Give a proper heading to each characteristic. 3. Write a story in about 150 -200 words with the followings beginning and give a suitable title to it. "It had been over two hours waiting for the train.Ruhi was getting restless suddenly....." NOTE:-Use only A4 size sheet keep all papers in my clear bag. Use colourful pen to make it more beautiful.
3	**SCIENCE**	1. List various respiratory and Digestive disorders with their causes and remedies. (In Biology notebook). 2. Update your lab manuals for Term – I in all the three subjects of science. 3. Practice NCERT questions of the chapters covered in all three subjects (In respective subject copies). 4. List atleast 10 solutions with their nature. Classify them as Acid/Base/Neutral and mention their pH value. (In chemistry notebook.) **NOTE: ALL QUESTIONS TO BE DONE IN CLASS WORK COPY.** 1. Solve NCERT questions of ELECTRICITY chapter. 2. A car headlight bulb working on a 12 V car battery draws a current of 0.5 A. Calculate the resistance of the light bulb 3. An electric iron draws a current of 3.4 A from the 220 V supply line. What current will this electric iron draw when connected to 110 V supply line? 4. Calculate work done in moving a charge of 4 coulombs from a point at 220 V to another point at 230 V. 5. How should the two resistances of 2 ohms each be connected so as to produce an equivalent resistance of 1 ohm? 6. A 6 ohm resistance wire is doubled up by folding .Calculate the new resistance . 7. If the amount of electric charge passing through a conductor in 10 minutes is 300 C. Find the current. 8. Calculate the work done in moving a charge of 8 Coulombs from a point at 250 Volts to another point at 230 Volts. 9. Is charge 3.6×10^{19} possible? 10. How many electrons should pass through a conductor in 1 second to constitute 1 ampere current?
4	**SOCIAL SCIENCE**	1. Prepare a project on any five popular struggles and movements that took place around the world. 2. Revise complete syllabus done in class in all the subjects of Social Science.

5	**COMPUTER**	1. Revise all the topics covered in class and prepare well for test to be held in July. 2. Do questions given on page no. 30,71 & 72 of chapter 1 and 2 (Sumita Arora) in your class work copy.

6. **MATHS:**

Solve the following problems in your class work copy.

1. If n is an odd positive integer, show that $(n^2 - 1)$divisible by 8.
2. If α and β are the zeroes of the polynomial $6y^2 - 7y + 2$, find a quadratic polynomial whose zeroes are $\frac{1}{\alpha}\ and\ \frac{1}{\beta}$.
3. Solve the following pair of the linear equation:

$$152x - 378y = -74$$
$$-378x + 152y = -604$$

4. Use Euclid's division algorithm to find the H.C.F. of 960 and 432.
5. Prove that $3 + 2\sqrt{5}$ is irrational.
6. Find the value of k so that the pair of equations $kx - 2y = 3$ and $3x + y = 5$ has unique solution?
7. Given that H.C.F. (26, 91) = 13, find the L.C.M. (26, 91).
8. Divide $2t^4 + 3t^3 - 2t^2 - 9t - 12\ by\ t^2 - 3$.
9. Solve $2x + 3y = 11$ and $2x - 4y = -24$ and hence find the value of 'm' for which $y = mx + 3$
10. Prove that $\sqrt{7}$ is irrational.
11. Find the zeroes of $6x^2 - 3 - 7x$ and verify the relationship between the zeroes and the coefficient.
12. Find the H.C.F. and L.C.M. of two numbers whose prime factorization are expressible as $2^3 \times 5^2 \times 7$ and $2^3 \times 3 \times 5$.
13. Use Euclid's division lemma to show that the cube of any positive integer is of the form $9m, 9m + 1\ or\ 9m + 8$.
14. Find all the zeroes of $2x^4 - 3x^3 - 3x^2 + 6x - 2$, if two of its zeroes are $\sqrt{2}$ and $-\sqrt{2}$.
15. Five years hence, the age of Jacob will be three times that of his son. Five years ago, Jacob's age was seven times that of his son. What are their present ages?
16. Draw the graphs of the equation $x - y + 1 = 0$ and $3x + 2y - 12 = 0$. Determine the coordinates of the vertices of the triangle formed by these lines and the x-axis and shade the triangular region.
17. For which values of a and b does the following pair of linear equations have an infinite number of solutions?

$$2x + 3y = 7$$
$$(a - b)x + (a + b)y = 3a + b - 2$$

18. Use Euclid's division algorithm to find the H.C.F. of 12576 and 4052.
19. If the H.C.F. of 65 and 117 is expressible in the form 65m - 117, then find the value of m.
20. If α, β are the zeroes of the polynomial $p(x) = 4x^2 + 3x + 7$, then find the value of $\frac{1}{\alpha} + \frac{1}{\beta}$