THE BLOSSOMS
S C H O O L
MUZZAMMIL MANZIL CIVIL LINES
ALIGARH
(AFFILIATED TO CBSE)
HOLIDAY HOMEWORK (2019-20)
Class X

- ## ENGLISH:

1. Find out the achievements of Martin Luther king and write them in about 200 words.
2. Read a novel of your choice and write a critical appraisal of it in 100-120 words.

- ## MATHEMATICS:

1. Prove that $\sqrt{3}$ is irrational
2. Prove that $2+3\sqrt{5}$ is irrational
3. Find HCF using Euclid's division algorithm
   i) 804, 4355   ii) 4848, 5555   iii) 9684, 20982
4. State whether the following have terminating decimal representation or not:
   i) $\dfrac{3}{128}$ ii) $\dfrac{51}{125}$ ii) $\dfrac{21}{375}$ iv) $\dfrac{7}{5^3 \times 2^5}$
5. Find zeroes of the following polynomials and verify the relationship between its coefficients:
   i) $3x^2-5x-28$ ii) $5x^2+37x-24$ iii) $7x^2-15x+2$ iv) x^2-49
6. If $\sqrt{7}$, $-\sqrt{7}$ are zeroes of $2x^4+3x^3-16x^2-21x+14$, find the other two zeroes
7. If $2\sqrt{3}$, $-2\sqrt{3}$ are zeroes of $3x^4-x^3-38x^2+12x+24$, find the other two zeroes
8. If $\alpha \wedge \beta$ are the zeroes of the equation $6x^2+x-2$, find $\dfrac{\alpha}{\beta}+\dfrac{\beta}{\alpha}$
9. If $\alpha \wedge \beta$ are the zeroes of the polynomial kx^2+4x+4 and if $\alpha^2+\beta^2=24$, find the value of k.
10. If one of the zeroes of the polynomial $2x^2+px+4$ is 2, find the other root, also find the value of p.
11. Find the zeroes of polynomial x^3-2x^2-x+2
12. Find the value of K for which the system of linear equations
    2x+5y = 3, (k +1) x + 2(k + 2) y = 2K. Will have infinite number of solutions.
13. For what value of k, will the system of equations
    $x+2y=5$, $3x+ky-15=0$ has a unique solution.
14. For what value of k the following pair has infinite number of solutions.
    (k-3) x + 3y = k, k (x+ y) = 12
15. Draw the graphs of the equations: 4x − y = 4, 4x + y = 12
    Determine the vertices of the triangle formed by the lines representing these equations and the x-axis. Shade the triangular region so formed
16. Draw the graph of x + 2y − 7 = 0 and 2x − y - 4 = 0. Shade the area bounded by these lines and Y-axis.
17. Solve graphically: 3x +y +1= 0, 2x -3y +8 = 0
18. For what value of k will the equation x +5y-7= 0 and 4x +20y + k = 0 represent coincident lines?

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PROJECT WORK (Choose any One)
1. Application of Mathematics in other fields.
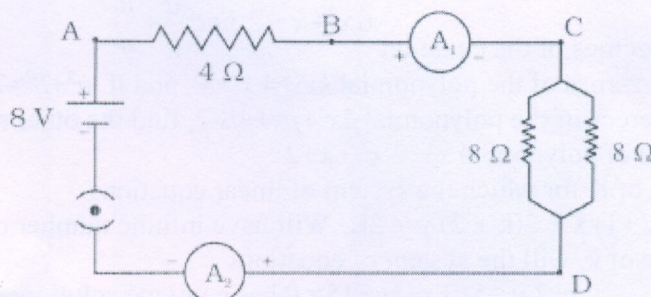2. Different approaches of Pythagoras

- ## HINDI:

सौन्दर्य प्रसाधन/इलैक्ट्रोनिक्स से सम्बन्धित किन्ही पाँच वस्तुओं का (25-50 शब्दों)
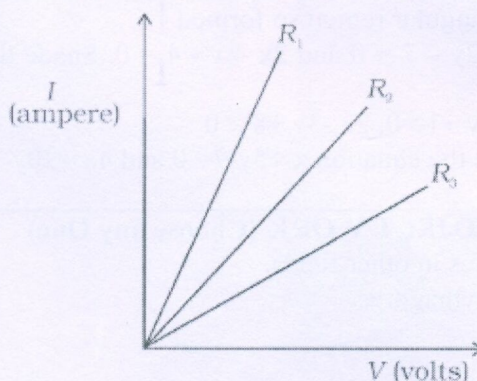का रंगीन विज्ञापन हिन्दी Notebook में बनाइए।

- **SCIENCE:**

  o **PHYSICS:**

1. Define current.
2. Define One Ohm.
3. On what factors does the resistivity of a material depend?
4. Plot a graph between the Potential Difference (V) and Current (I) through a conductor.
5. What happens to the resistance of the circuit if the current through it is doubled?
6. List two distinguishing features between the resistance and resistivity of a conductor. A wire is stretched so that its length becomes 6/5 times of its original length. If its original resistance is 25 Ohm find its new resistance. Give justification for this change in resistance.
7. Two identical resistors each of resistance 2 Ohm are connected in turn (1) in series, and (2) in parallel to a battery of 12 V. Calculate the ratio of power consumed in these two cases.
8. Three resistors of $1\,\Omega$, $2\,\Omega$ and $3\,\Omega$ are connected in parallel in a circuit. If $1\,\Omega$ resistor draws a current of 1 A, find the current through the other two resistors.
9. Find out the following in the electric circuit given in the figure below

   (a) Effective resistance of two $8\,\Omega$ resistors in the combination

   (b) Current flowing through $4\,\Omega$ resistor

   (c) Potential difference across $4\,\Omega$ resistance

10. A student carries out an experiment and plots the V-I graph of three samples of chrome wire with resistances R1, R2 and R3 respectively (Figure given below). Which resistance has highest and and which one has the lowest value?

o **CHEMISTRY:**

- Observe any ten chemical changes taking place around us. Write word equations for any five of them and translate them into a balanced chemical equation.

o **BIOLOGY**

- Write an assignment on:
a) High blood pressure, its causes, symptoms and treatment.
b) Low blood pressure, its causes, symptoms and treatment.
c) Kidney failure, its causes, symptoms and treatment.

• **URDU:**

۱ - مندرجہ ذیل عنوانات میں سے کوئی سے بھی دو عنوانات پر
۲۵۰ سے ۳۰۰ الفاظ پر مشتمل مضمون لکھیئے ۔

بے روزگاری ، کمپیوٹر ، انٹرنیٹ ، انفارمیشن ٹکنالوجی ،
عورتوں کی تعلیم ، جہیز ایک لعنت ،

۲ - اپنی درسی کتاب میں موجود مصنف و شعراء میں سے کسی
ایک کے حالاتِ زندگی پر مختصر نوٹ لکھیئے ۔

• **SOCIAL SCIENCE:**

o **HISTORY & CIVICS:**

1. Revise the work done so far in both subjects.
2. Write all the Question & Answers of Power Sharing in rough.

o **GEOGRAPHY:**

- Investigate people's attitude in your colony, towards recycling of the domestic/ agricultural wastes. Ask questions about:
  a) What do they think about resources they use?
  b) What is their opinion about the wastes, and its utilization?
  c) Make a collage of the results.

o **ECOMOMICS:**

- Find out the weight and height of three adult persons of different economic backgrounds such as construction workers, domestic servants, office workers, business-persons etc. Collect the data and make a table. Calculate their BMI (Body Mass Index). Do you find any relationship? between economic background of person and her/his nutritional status?