

**THE BLOSSOMS
SCHOOL**
MUZZAMMIL MANZIL CIVIL LINES
ALIGARH
(AFFILIATED TO CBSE)

HOLIDAY HOMEWORK (2018-19)
CLASS - X

• **ENGLISH:**

I. Write a letter on either of the two topics.

a) You are Kavita Khanna, a resident of 50-C PushpVihar, New Delhi. Write a letter to the editor of 'India Today' magazine about the article on 'Ban Polybags' published in the latest edition.

OR

b) You are Chaitanya/ Surekha. After appearing in your Board exams, you wish to join Toppers' Coaching, Noida. Write a letter to the manager enquiring about the coaching classes for the next session.

II. Write a story, beginning with the words given below, in about 200-250 words.

As I opened the window I saw

OR

As I walked through the thick, pine forest in Shimla I sensed someone following me and

• **MATH:** Sheet is attached. (Please do it in a separate Notebook)

• **SCIENCE.:**

Physics: Sheet is attached.

Chemistry: Sheet is attached.

Biology: Do activity 6.7 on page 105 (Science N.C.E.R.T)

• **HINDI:**

1) जनकी देवी पुरस्कार जमना लाल बजाज फ़ाउंडेशन द्वारा पूरे भारत में सरहनीय कार्य करने वाली महिलाओं की दिया जाता है। ऐसे किन्ही तीन महिलाओं के बारे में चित्र सहित जानकारी प्राप्त करके परियोजना project तैयार करिये।

2) 'टेक्निक' ब्रांड एल०सी०डी/एल०ई०डी० के लिए एक विज्ञापन तैयार कीजिए।

या

एशियन पेन्ट्स पर एक आर्कषक सा विज्ञापन तैयार कीजिए।

• URDU:

- ۱- مندرجہ ذیل عنوانات میں سے کوئی سے بھی دو عنوانات پر
 200 الفاظ پر مشتمل مضمون لکھیے۔
 - گری کی چھٹیاں کیسے گزاریں
 - میری پسندیدہ شخصیت
 - اسمارٹ فون کے فوائد و نقصانات

• SOCIAL SCIENCE:

Home Preparation Kit

- 1) In many communities, individuals are encouraged to create home preparedness kits to ensure their family's safety in the event of a disaster. Gather information on government recommendations for the contents of one of these kits. Gather a kit, containing the materials the government recommends. Present your kit to your peers, explaining the reasons behind each of the suggested materials and describing how the material would be used in a true disaster situation. Compose a pamphlet outlining what things the kit should contain and distribute the pamphlets upon the conclusion of your presentation.
- 2) a. Make a list of all the places mentioned in the Nationalism in India chapter.
 b. Plot all these places on an outline map of India.
 c. Write one or two sentences about the contextual historical importance of each place.

Holiday Homework: Mathematics

Class X

Note: You have to do this on the assignment exercise book.

Real Numbers

- Q 1. Using Euclid's division algorithm, find the HCF of the following. (a) 1288, 576 (b) 155, 1305 (c) 240, 1024
- Q 2. If the HCF of 210 and 55 is expressible in the form $210 \times 5 + 55y$, find y .
- Q 3. Find the largest number which divides 245 and 1029 leaving remainder 5 in each case.
- Q 4. Using prime factorization, find the HCF and LCM of 72, 126 and 168. Also show that $\text{HCF} \times \text{LCM} \neq \text{product of the three numbers}$.
- Q 5. The HCF of two numbers is 145 and their LCM is 2175. If one number is 725, find the other.
- Q 6. The product of two numbers is 20736 and their HCF is 54, find their LCM.
- Q 7. After how many places of decimals, will the decimal expansion of the rational number terminate?
- Q 8. Check whether $5n$ can end with the digit 0 for any natural number n .
- Q 9. Express each of the following as the product of primes. (a) 6435 (b) 8085 (c) 2184
- Q 10. Show that square of an odd positive integer is of the form $8q + 1$, for some positive integer q .
- Q 11. Show that every positive even integer is of the form $2q$ and every positive odd integer is of the form $2q+1$, where q is some integer.
- Q 12. Prove that $5 + 2\sqrt{3}$ is an irrational number.

Topic: Polynomials

- Q 1. If $(x + k)$ is a factor of $2x^2 + 2kx + 5x + 10$, find k .
- Q 2. If α and β are the zeroes of the polynomial $p(x) = 3x^2 - 5x + 6$, find $\alpha^2 + \beta^2$.
- Q 3. Find the quadratic polynomial, sum and product of whose zeroes are 2 and -1 respectively.
- Q 4. If the sum of the zeroes of the quadratic polynomial $kx^2 + 2x + 3k$ is equal to their product, find k .
- Q 5. Find the polynomial whose zeroes are reciprocals of the zeroes of the polynomial $2x^2 + 3x - 6$.
- Q 6. Find the ratio of the sum and product of the zeroes of the polynomial $5x^2 + 2x - 10$.

Q 7. If α , β and γ are the zeroes of the cubic polynomial $p(x) = 3x^3 - 6x^2 + 5x - 3$, then, find their sum and product.

Q 8. Divide $3 - x + 2x^2 + x^3 - 3x^4$ by $(2 - x)$ and verify by division algorithm.

Q 9 Find all the zeroes of the polynomial $p(x) = x^4 - 7x^3 + 9x^2 + 13x - 4$, if two of its zeroes are $2 + \sqrt{3}$ and $2 - \sqrt{3}$.

Q 10. What must be subtracted from $8x^4 + 14x^3 - 2x^2 + 7x - 8$ so that the resulting polynomial is exactly divisible by $4x^2 + 3x - 2$.

Pair of Linear Equation in Two Variables

Q 1. Graphically, the pair of equations $6x - 3y + 10 = 0$ and $2x - y + 9 = 0$ represents two lines which are (A) intersecting at exactly one point. (B) Intersecting at exactly two points. (C) Coincident. (D) Parallel.

Q 2. Find the value of 'k' so that the following system of equations has no solution. a) $(3k+1)x + 3y - 2 = 0$; $(k^2+1)x + (k-2)y = 0$

Q 3. Represent the following equations on the graph and determine the vertices of the triangle, so formed. a) $2y - x = 8$, $5y - x = 14$, $y - 2x = 1$

Q 4. Draw the graph of $x - y + 1 = 0$ and $3x + 2y - 12 = 0$. Calculate the area of the triangle bounded by these lines and the x-axis.

Q 5 The age of father is twice the sum of the ages of his two children. Ten years hence, the age of father will be three-quarter of the sum of the ages of his children then. Find the present age of the father.

Q 6. The numerator of a fraction is 4 less than its denominator. If the numerator is decreased by 2 and the denominator is increased by 1, the denominator becomes 8 times its numerator. Find the fraction.

Q 7 The sum of a two-digit number and the number obtained by reversing the digits is 66. If the digits of the number differ by 2, find the number. How many such numbers are there?

Q 8. Solve the following pair of linear equations by the elimination method and the substitution method: $3x - 5y - 4 = 0$ and $9x = 2y + 7$.

Holiday Homework: Physics

Class X

Note: You have to do this on the assignment exercise book

1. What is an electric circuit?
2. Define Ampere. What is the conventional direction of electric current?
3. How we measure electric current in an electric circuit?
4. Define electric potential. How is it measured in a circuit?
5. How much energy is required to move a charge of $5C$ between two points having a potential difference $10V$?
6. A current of $1.2 A$ is drawn from a cell for 2 minutes. Calculate the charge drawn from the cell.
7. Draw an electric circuit having a battery of $6V$, two resistors 2Ω & 3Ω connected with a key & an ammeter?
8. By using Ohm's law, define one Ohm.
9. The potential difference across a resistor of resistance 6Ω is $150 V$. Calculate the current passing through the resistor.
10. The wire of a heater has a resistance of 70Ω . If a current of $5 A$ is passing through it then calculate the potential difference across the wire.
11. Why does a conductor heat up when a current is flowing through it? Explain.
12. An electric bulb is rated as $220 V, 100 W$. What is the power consumed when it is operated on $200 V$?

Project based Assignment

Calculate the electricity bill for the month of May 2018 of the Kitchen and the Living Room of your house. The slab of the cost per unit in a month is as follows:

- Upto 150 unit (kwh) at the rate of Rs. 5.00/unit
- 150 to 500 units (kwh) at the rate of Rs. 5.50/unit
- Above 500 units (kWh) at the rate of Rs. 6.50/unit

HOLIDAY HOMEWORK (2018-2019)

CLASS X – CHEMISTRY

Change the following word equations into balanced equations and specify the type of reaction: -

[In case of decomposition reaction specify the type (eg: photolysis, thermolysis etc.) also specify when precipitate formation takes place]

1. Carbon burns in air to form carbon dioxide

Equation: _____

Reaction: _____

2. Ferrous sulphate decomposes to give ferric oxide, Sulphur dioxide and Sulphur trioxide

Equation: _____

Reaction: _____

3. Potassium iodide reacts with Lead nitrate to give Potassium nitrate and Lead iodide

Equation: _____

Reaction: _____

4. Silver bromide decomposes in the presence of sunlight to give Silver and Bromine

Equation: _____

Reaction: _____

5. Iron nails react with a solution of copper sulphate to give ferrous sulphate and copper

Equation: _____

Reaction: _____

6. Lead nitrate decomposes under high temperature to give Lead oxide, Nitrogen dioxide and Oxygen

Equation: _____

Reaction: _____

7. Aluminum reacts with Ferric oxide to form Aluminum oxide and Iron

Equation: _____

Reaction: _____

8. Barium chloride reacts with Sodium sulphate to form Barium sulphate and Sodium chloride

Equation: _____

Reaction: _____

9. When Copper oxide is heated with Hydrogen then copper metal and water are formed

Equation: _____

Reaction: _____

10. When hydrogen sulphide reacts with chlorine, then sulphur and hydrogen chloride is formed

Equation: _____

Reaction: _____

4. Silver bromide decomposes in the presence of sunlight to give Silver and Bromine

Equation: _____

Reaction: _____

5. Iron nails react with a solution of copper sulphate to give Iron sulphate and copper

Equation: _____

Reaction: _____