

ARMY PUBLIC SCHOOL, PATIALA
HOLIDAYS' HOMEWORK
SESSION:-2019-2020
CLASS:X

English

1. Do the following assignment in a scrap file.

a) Read the novel "The Story of My Life-Helen Keller" and write a review on it. Draw its cover page also.

b) Collect information on any two Nature Poets. Write about their birth, family background, educational qualification, major works, achievements etc. Do mention the main themes and plots they talk about in their works. Also specify the work that you like the most and why.

c) Make a project on any eminent Political and Social reformer in about 150 words.

2. Make a brochure on any famous tourist spot.

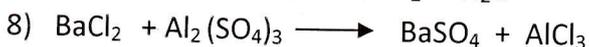
3. Draft a poster on any one of the following:

"Save the Planet Earth" or "Organic vs. Inorganic eatables".

Science

Chemistry

Q.1) Balance the following chemical equations :



Q.2) Write Balanced chemical equation for following reactions :

1) Sodium reacts with water to give sodium hydroxide and hydrogen.

2) Solutions of Barium chloride and sodium sulphate in water react to give insoluble Barium sulphate and solution of sodium chloride.

3) Zinc reacts with silver nitrate to give zinc nitrate and silver.

4) Aluminium reacts with copper chloride to give aluminium chloride and copper.

5) Zinc carbonate decomposes to give zinc oxide and carbon dioxide.

6) Lead nitrate decomposes to give lead oxide , nitrogen dioxide and oxygen gas.

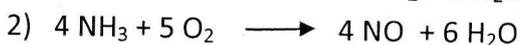
7) Magnesium reacts with nitrogen gas to give magnesium nitride.

8) Phosphorus burns in oxygen to give phosphorus pentoxide .

9) Lead nitrate reacts with potassium iodide to give lead iodide and potassium nitrate.

10) Sodium carbonate on reaction with hydrochloric acid gives sodium chloride , water and liberates carbon dioxide

Q.3) Name the substance oxidized , substance reduced, oxidizing agent and reducing agent in the following reactions :





Q.4) Solve PA-1 Chemistry part (13 marks) in chemistry homework notebook.

Q.5) Revise NCERT Questions of Chemical reactions and Equations chapter.

Biology

1. Draw a well labelled diagram of the following:

The Human Alimentary Canal, Human respiratory System, Excretory system in man, section of human heart, Structure of nephron

2. Give a schematic representation of the circulatory System of man.

3. How does digestion of carbohydrates , proteins and fats takes in the humans?

4. What is double circulation? Describe it in humans?

5. Explain the process of urine formation in humans.

Revise the syllabus covered in the class. Complete home work notebook.

Physics

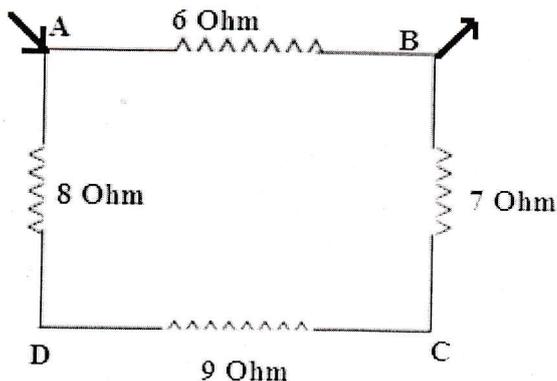
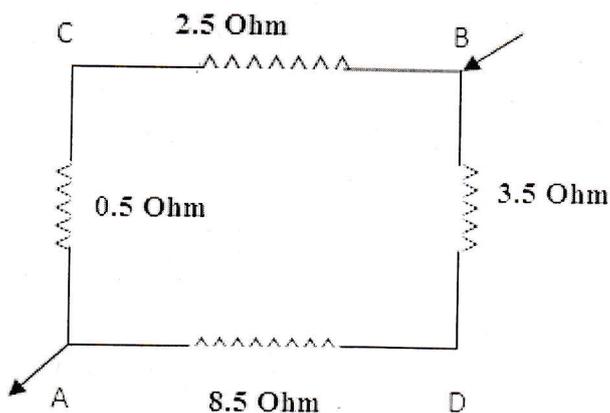
1. When two Resistors of resistances R_1 and R_2 are connected in parallel, the net resistance is 3 Ohm. When connected in series, its value is 16 Ohm Calculate the value of R_1 and R_2 .

2. A metal wire of resistivity 64×10^{-6} Ohm-cm and length 198 cm has resistance of 7 Ohm. Calculate its radius.

3. A cylinder of a material is 10 cm long and has a cross section of 2 cm^2 . If its resistance along the length be 20 Ohm . What will be its resistivity in number and units.

4. Two copper wires A and B of length 30 m and 10 m have radii 2 cm and 1 cm respectively. Compare the resistance of the two wires. Which will have less resistance?

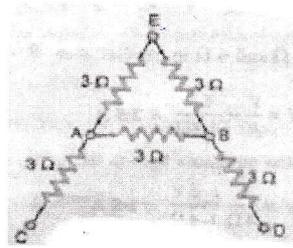
5. Calculate the equivalent resistance between the points A and B of the circuit shown below.



6. Five resistors, each 3 Ohm are connected as shown in fig. Calculate the resistance between the points.

(a) A and B

(b) between the points C and D



Hindi

1. निम्नलिखित विषयों पर 80-100 शब्दों में अनुच्छेद लिखिए :-

(i) देश के निर्माण में युवाओं की भूमिका

- देश में बदलाव
- युवा क्या करें
- क्या न करें

(ii) क्यों आवश्यक है सहनशीलता

- सहनशीलता का अर्थ
- कब आवश्यक
- क्यों आवश्यक

2 (i) बस में छूट गए आपके कीमती सामान को सुरक्षित रूप से आपको लौटा देने वाले कंडक्टर की प्रशंसा करते हुए परिवहन विभाग के प्रबंधक को पत्र लिखकर उसे पुरस्कृत करने का अनुरोध करें।

(ii) अपने क्षेत्र के विधायक को पत्र लिखकर अनुरोध कीजिए कि वे आपके क्षेत्र में एक पुस्तकालय का निर्माण करवाएँ।

3 (i) डेंगु बुखार से पीड़ित मरीज़ और डॉक्टर के बीच सावधानी बरतने हेतु संवाद को लगभग 50 शब्दों में लिखिए।

(ii) विद्यालय में मोबाइल फोन के प्रयोग को लेकर अध्यापक और अभिभावक के बीच की वार्तालाप को संवाद के रूप में लिखिए।

4. आप अपनी पुरानी बाइक को यथाशीघ्र बेचना चाहते हैं। बाइक का विवरण देते हुए लगभग 50 शब्दों में एक विज्ञापन तैयार कीजिए।

5. दोहा गायन क्रियाकलाप के लिए कबीर के पाँच दोहे याद कीजिए।

Social Studies

History

Do the thorough reading of the following chapters.

Ch:-3 .Democracy and Diversity **Ch:-5**. Popular Struggles and Movements

Ch:-8. Challenges to Democracy

Geography

Water Resources (Dams and River valley projects)

Agriculture :-Types of Farming

Climate condition for crops:- Rice, Wheat, Sugarcane, Rubber, Cotton, Jute, Tea and Coffee

Primitive Subsistence farming Intensive Subsistence farming Commercial farming.

Economics

Paste the pictures of commodities which bear logos of ISI mark ,Agmark and Hall mark and also explain briefly.

Maths

DO THE FOLLOWING QUESTIONS IN A SEPRATE NOTE BOOK

- Use Euclid division lemma to find HCF of 4052 and 12576.
 - Find the largest number that divides 2053 and 967 and leaves a remainder 5 and 7 respectively.
- If HCF of 408 and 1032 is expressible in the form $1032m - 408 \times 5$, find m .
- Prove that square of any positive integer is of the form $4m$ or $4m+1$ for some integer m .
- Express in decimal form:
 - $\frac{13}{8000}$
 - $\frac{11}{1000}$
 - $\frac{13}{2 \times 5^4}$
- Find HCF and LCM of 595 and 252.
 - Prove that $\sqrt{3} + \sqrt{5}$ is irrational.
- Find other zeros of $2x^4 + 7x^3 - 9x^2 - 14x + 30$ if two zeros are $\sqrt{2}$ and $-\sqrt{2}$.
- If α, β are zeros of $x^2 - 4x - 3$, find a quadratic polynomial whose zeros are 3α and 3β .
- Find zeros of polynomial $6x^2 - 17x + 7$ and verify relationship between zeros and coefficients.
- Find other zeros of $x^4 + 4x^3 - 2x^2 - 12x + 9$, if two zeros are 1 and 1.
- If α, β are zeros of $3x^2 - 4x + 1$, find value of
 - $\frac{\alpha}{\beta} + \frac{\beta}{\alpha}$
 - $\frac{\alpha^2}{\beta} + \frac{\beta^2}{\alpha}$
- Draw graph of $4x - 3y - 6 = 0$ and $x + 3y - 9 = 0$ and find vertices of triangle formed by lines and y-axis.
- Find k if equations $x + 2y = 5$ and $3x + ky = 15$ has unique solution and no solution.
- Determine by graphical method whether the following linear equation has a unique solution or not:
$$2x - 5y + 4 = 0$$
$$2x + y - 8 = 0$$
- If one of zeros of polynomial $(k-1)x^2 + kx + 1$ is -3 , then find the value of k .
- What must be added to polynomial $x^4 + 2x^3 - 2x^2 + x - 1$ so that resulting polynomial is exactly divisible by $x^2 + 2x - 3$?

Information Technology

Project:

Survey of any one ISPs (Airtel, Reliance etc.) , their founder, CEO, Head office, data plan, Brand ambassadors, tagline etc.