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Holiday Homework

Class - IX

Last date of submission of Holiday homework is 20th June 2026

English

1. Interview any five elderly people (aged 60 years or above) in your family or neighborhood who couldn't study in their childhood and completed their education later on in life. Present this creatively on A4 size coloured sheets..

2. Write an article on the topic 'Role of Education in Women Empowerment '.

Both the questions should be done on A4 size coloured sheets and to be submitted in a DIY file cover (No plastic to be used)

Hindi

1. संवाद लेखन - रचनात्मक लेखन हिंदी गतिविधि

विषय - रेलवे स्टेशन पर दो यात्रियों के मध्य बढ़ती भीड़ के संबंध में संवाद लेखन लिखिए।

या

छुट्टियों में की गई किसी ऐतिहासिक, दर्शनीय स्थल का यात्रा वर्णन अधिकतम 100 शब्दों में लिखिए।

2. अपनी माता के प्रति संवेदनाएं व्यक्त करते हुए अनौपचारिक पत्र लिखिए।

या

छोटे भाई बहन को मोबाइल के अत्यधिक उपयोग से होने वाली हानि से अवगत कराते हुए पत्र लिखिए।

3. दो बैलो की कथा " कहानी समाज से समाज को क्या सन्देश प्राप्त होता है। अपने विचार 80 शब्दों में लिखिए।

Sanskrit

1. अधोलिखित प्रत्ययानाम् परिभाषां उदाहरणानि च लिखत।

क्त्वा , ल्यप् , तुमुन् , क्त ,

क्तवतु , शतृ , शानच्

2. निम्नलिखित अव्यय पदानां वाक्येषु प्रयोगं कृत्वा लिखत।

अत्र , तत्र , अन्यत्र , सर्वत्र

यदा, तदा, सर्वदा, पुरा

कुत्र, कदा, कुतः

च, अपि, यदि, तर्हि

Mathematics

1. Is zero a rational number? Justify your answer.
2. Find the absolute value of $-7/11$.
3. State whether the decimal expansion of $9/8$ is terminating or non-terminating repeating.
4. Express $-3/2$ as a rational number with: (i) numerator 15 (ii) denominator 10.
5. Compare the rational numbers $-8/7$ and $-11/9$ using the cross-multiplication method.
6. Find a rational number between $1/3$ and $1/4$.
7. Express $0.\bar{6}$ in the form p/q , where p and q are integers and $q \neq 0$.
8. Write three rational numbers equivalent to $4/5$.
9. Reduce $-52/-24$ and $216/-288$ to standard form.
10. Represent $2/5$ and $-2/5$ on the number line.
11. Evaluate: $(-3/5) + (7/-20) + (-11/15)$.
12. Simplify: $(3 + \sqrt{3})(3 - \sqrt{3})$. What type of number is the result rational or irrational? Justify.
13. Rationalise the denominator of $1/(\sqrt{7} - \sqrt{6})$.
14. Find five rational numbers between $3/5$ and $3/4$.
15. Prove that $\sqrt{2}$ is an irrational number using the method of contradiction.
16. If $x = (3 - \sqrt{2})/(3 + \sqrt{2})$ and $y = (3 + \sqrt{2})/(3 - \sqrt{2})$, find the value of $x^2 + xy + y^2$.
17. Verify the distributive property $a \times (b + c) = a \times b + a \times c$ by taking $a = 2/3$, $b = 3/5$, and $c = 5/7$. Show all steps.
18. What is the maximum number of digits in the repeating block of $1/17$? Perform the long division to verify your answer. Also state whether $1/17$ is terminating or non-terminating repeating, with reason.

Case Study Questions

19. A mathematics teacher explains to students that between any two rational numbers, there exist infinitely many rational numbers. She takes two numbers $-3/4$ and $3/4$ and asks the students the following questions:
 - (a) How many integers lie between -3 and 3 ? List them.
 - (b) Convert $-3/4$ and $3/4$ into equivalent rational numbers with denominator 40 and write any four rational numbers lying between them.
 - (c) Find a rational number between $-3/4$ and $3/4$ using the mean method.
20. Ravi is studying irrational numbers and wants to locate them on the number line. His teacher tells him that using the Pythagorean theorem, we can represent square roots geometrically.
 - (a) Locate $\sqrt{2}$ on the number line. Describe the construction steps clearly.
 - (b) Using the above construction, explain how you would locate $\sqrt{3}$ on the number line.
 - (c) Is every point on the number line a rational number? Justify.

Science

Physics

Make a colourful chart showing applications of reflection of sound.
Draw examples like echo, SONAR, stethoscope, megaphone/horn, soundboard.
Show how sound reflects using arrows.
Label each diagram clearly.
Make the chart neat, creative, and attractive.

Chemistry

Q.1 Write following experiments in your chemistry file-

Experiment-1 To prepare:

- (i) a true solution of common salt, sugar and alum in water.
- (ii) a suspension of soil, chalk powder and fine sand in water.
- (iii) a colloidal solution of starch in water and egg albumin in water and distinguish between these on the basis of:
transparency
filtration criterion
stability

Experiment-2 Verification of the law of conservation of mass in a chemical reaction.

Q.2 Creative chart paper

Make a chart paper only one of the following theme:

- (i) Sublimation of ammonium chloride and sodium chloride
- (ii) Separation of kerosene oil and water by separating funnel
- (iii) Separation of components of blue/black ink by thin layer chromatography
- (iv) Purification of sea water by distillation.

Biology

Prepare an attractive and informative "Cell Fact Booklet." In this booklet, you should:

Draw neat and labelled illustrations of cells.

Write interesting facts about cells.

Explain different cell organelles and describe their functions in simple terms.

Compare plant cells and animal cells, clearly showing their similarities and differences.

Make your booklet creative, colourful, and well-organized

Social Science

Social Science project

Topic- Evolution of Indian Economy

A project analysing different sectors of economy(primary, secondary and tertiary) and their development overtime including the role of self help groups.

Research and cover the following sub topics

1. Features and examples of the three sectors
2. Comparison of three sectors
3. The shift from primary sector to secondary and now to tertiary sector
4. Historical changes in sectors
 - a. Rising importance of tertiary sector in production.
 - b. The sector in which most of the people employed earlier and now.
5. How to create more employment?
6. MGNREGA
7. The importance of Self Help Groups

Note-Make a project file and paste pictures and include related bar graphs to make your project more relevant.