

ARMY PUBLIC SCHOOL, KANPUR
HOLIDAY HOMEWORK
CLASS IX

HINDI

- 1-दुख का अधिकार शीर्षक से संबंधित एक स्व रचित कहानी लिखिए ।
- 2- 10-10 श्रुति सम भिन्नार्थक ,पर्यायवाची, विलोम शब्द लिखे ।
- 3-वृक्षों के महत्व बताते हुए दो मित्रों के बीच का संवाद लेखन लिखे
- 4-शिक्षा का महत्व बताते हुए छोटे भाई को पत्र लिखें ।
- 5-एक चित्रचिपका कर उस चित्र का वर्णन कीजिए।

नोट- उपर्युक्त कार्यों के लिए आवश्यकतानुसार चित्रों का प्रयोग भी करिए। और इसी से एक पोर्टफोलियो तैयार करिए जिसमें प्रथम पृष्ठ आपके अपने बारे में होना चाहिए।

ENGLISH

NOTE: All the work (Q. No. 1, 2 & 3) must be done in one separate file. Holiday H.W. done in the classwork note books will not be accepted.

1. Write biography of Dr A P J Abdul Kalam in reference to the chapter MY CHILDHOOD. Add pictures as well.
2. Read the newspaper daily and write one news article under the given heading-
 - national
 - international
 - sports
 - glamour
 - business
- 3- Refer the dictionary and write the full forms of the abbreviations given in the dictionary.
 - Eg-fem-feminine
 - Prep-prepositions
 - Write any thirty such abbreviations

SCIENCE

1. Make a **PPT** on any topic from the Chapter: **Natural Resources** (Minimum **20 slides**)
2. This will be assessed as your **Portfolio** (Internal Assessment)
3. Revise the **chapters completed** in the classes thoroughly for **UT-1**

MATHS

- A) 21 QUESTIONS ON CHAPTER (1,2,3,4)
B) PPT (any one)
C) ACTIVITY (any two)

PART -A

1. Express $0.6+0.\overline{7}+0.4\overline{7}$ in the form p/q , where p and q are integers and $q \neq 0$.
2. Locate $\sqrt{5}$, $\sqrt{10}$ and $\sqrt{17}$ on the number line.
3. Insert FIVE rational number and an irrational number between the following:
(i) 2 and 3 (ii) 0 and 0.1 (iii) $1/3$ and $1/2$ (iv) $-2/5$ and $1/2$ (v) 0.15 and 0.16
4. Let x and y be rational and irrational numbers, respectively. Is $x + y$ necessarily an irrational number? Give an example in support of your answer.
5. Degree of the polynomial $4x^4 + 0x^3 + 0x^5 + 5x + 7$.
6. If $p(x) = x^2 - 2\sqrt{2}x + 1$, then $p(2\sqrt{2})$
7. If $p(x) = x + 3$, then $p(x) + p(-x)$ is equal to
8. By actual division, find the quotient and the remainder when the first polynomial is divided by the second polynomial: $x^4 + 1$; $x - 1$
9. By Remainder Theorem find the remainder, when $p(x)$ is divided by $g(x)$, where
(i) $p(x) = 3x^2 - 22x - 4$, $g(x) = x + 1$
(ii) $p(x) = 3x^2 - 32x + 4$, $g(x) = -x - 3$
(iii) $p(x) = 43x^2 - 122x + 14$, $g(x) = 2x - 1$
(iv) $p(x) = 3x^2 - 62x + 2$, $g(x) = x - 3/2$
10. Show that $p - 1$ is a factor of $p^{10} - 1$ and also of $p^{11} - 1$.
11. For what value of m is $3x^2 - 22x + 16$ divisible by $x + 2$?
12. factorize by splitting the middle term a) $\sqrt{3}x^2 + 4x + \sqrt{3}$ b) $\sqrt{2}x^2 + 9$ c) $2x^2 + 5\sqrt{3}x + 10$ d) $7\sqrt{2}x^2 - 10$
13. If $x + y = 12$ and $xy = 27$, find the value of $x^3 + y^3$.

14. The points (other than origin) for which abscissa is equal to the ordinate will lie in
 (A) I quadrant only (B) I and II quadrants (C) I and III quadrants (D) II and IV quadrants
15. Point $(-10, 0)$ lies
 (A) on the negative direction of the x-axis
 (B) on the negative direction of the y-axis
 (C) in the third quadrant
 (D) in the fourth quadrant
16. Write whether the following statements are True or False? Justify your answer.
 (i) Point $(0, -2)$ lies on y-axis.
 (ii) The perpendicular distance of the point $(4, 3)$ from the x-axis is 4.
17. The linear equation $3x - y = x - 1$ has :
 (A) A unique solution (B) Two solutions (C) Infinitely many solutions (D) No solution
18. Draw the graphs of linear equations $y = x$ and $y = -x$ on the same Cartesian plane. What do you observe?
19. Determine the point on the graph of the linear equation $2x + 5y = 19$ whose ordinate is $1\frac{1}{2}$ times its abscissa.
20. Draw the graph of the linear equation $2x + 3y = 12$. At what points, the graph of the equation cuts the x-axis and the y-axis?
21. The linear equation that converts Fahrenheit (F) to Celsius (C) is given by the relation $C = (5F - 160)/9$
 (i) If the temperature is 86°F , what is the temperature in Celsius?
 (ii) If the temperature is 35°C , what is the temperature in Fahrenheit?
 (iii) If the temperature is 0°C what is the temperature in Fahrenheit and if the temperature is 0°F , what is the temperature in Celsius?
 (iv) What is the numerical value of the temperature which is same in both the scales?

PART-B (any one)

1. PPT ON (between 10- 15 slides)
 i) LAWS OF EXPONENT AND ii) ALGEBRAIC IDENTITIES,
 ii) Concept map on Real numbers (including decimal expansion of real numbers)

PART-C (any two)

1. To Draw Hermit Crab by Constructing Square Root Spiral in nature.
 (https://www.youtube.com/watch?v=D_hYGbWE3CA)
 2. Types of polynomials working model.
 (<https://www.youtube.com/watch?v=V9YZp0GPedU>)
 3. Seating Plan of CLASS IX-B
 (https://www.youtube.com/watch?v=6vfy7o_siB0)

SOCIAL SCIENCE

1. Make a Project on the topic: Disaster Management

Art & Craft

- 1) Make a creative year timeline showing “India’s race to 100 Unicorn Startups”.
 2) Design a single flash card based on any topic.
 3) Draw and shade 5 animals.
 4) Illustrate your favourite Manga or Disney character.
 5) Make a Mandala or Lippan Art.

Things to note:

- a) Present your work neatly.
 b) Don’t use tape for border.
 c) Write your name, class and section in proper alignment on the back side of paper.