GURU AMAR DASS PUBLIC SCHOOL, MODEL TOWN, JALANDHAR

HOLIDAYS' HOME WORK, JUNE 2024

CLASS - IX

ENGLISH

1. Read all the chapters thoroughly (done so far)
2. Complete the grammar worksheets and comprehension passages being sent in your class groups. (Take the printout and then solve it)
3. Make an ART INTEGRATED PROJECT (Chapter - The Fun They Had) (Page Limit – Minimum 8 to 10 pages and Maximum 15 to 18 pages)
4. Complete your notebooks and revise all the work done so far.

PUNJABI

- ਮੁਹਾਵਰੇ -ਓ, ਅ, ੲ ਲਿਖੋ ਅਤੇ ਯਾਦ ਕਰੋ।
- ਲੇਖ ਰਚਨਾ -

1. ਚੋਣਾਂ ਵਿੱਚ ਆਮ ਨਾਗਰਿਕ ਦੀ ਭੂਮਿਕਾ
2. ਪਾਣੀ ਦੀ ਮਹੱਤਤਾ ਤੇ ਸੰਭਾਲ
3. ਸਮੇਂ ਦੀ ਕਦਰ

- Activity –

ਕਵੀ ਸੁਰਜੀਤ ਪਾਤਰ ਦੀ ਕੋਈ ਕਵਿਤਾ 1/4 sheet ਤੇ ਲਿਖੋ।

1. 'ਬੇਟੀ ਬਚਾਓ,ਬੇਟੀ ਪੜ੍ਹਾਓ' ਨਾਲ ਸੰਬੰਧਤ ਸਲੋਗਨ 1/4 sheet ਤੇ ਲਿਖੋ।

ਜਮਾਤ ਵਿੱਚ ਕਰਵਾਏ ਗਏ ਕੰਮ ਦੀ ਦੁਹਰਾਈ ਕਰੋ ਅਤੇ ਕਾਪੀਆਂ ਪੂਰੀਆਂ ਕਰੋ।

HINDI

1.स्पर्श पाठ्यपुस्तक के करवाए गए पाठों की दोहराई कीजिए और अपनी कार्य पुस्तिकाएँ पूरी कीजिए ।

2. शब्द और पद की दोहराई करें l

3. अनुच्छेद लिखें- जीवन में नैतिक मूल्यों की आवश्यकता ,प्रकृति से खिलवाड़ न करें

4. विदेश जाने वाले मित्र को मंगल कामना देते हुए पत्र लिखिए।

5. (i) रोगी और डॉक्टर के बीच हुए संवाद को 100 शब्दों में लिखिए l

(ii) विद्यालय की ओर से शिमला पिकनिक पर जाने हेतु रीता और उसके माता के बीच के संवाद को लगभग सौ शब्दों में लिखिए ।

6. विलोम शब्द , उपसर्ग , प्रत्यय , पर्यायवाची शब्द अनुस्वार, अनुनासिक और नुक्ता की दोहराई कीजिए।

MATHEMATICS

Assignment of Ch-1and 2

1. If $x^2 + \frac{1}{x^2} = 79$, find the value of a) $x + \frac{1}{x}$ b) $x^3 + \frac{1}{x^3}$ Ans a) ±9 b) 70
2. Find the values of a and b in each of the following:

(i) $\frac{5+2\sqrt{3}}{7+4\sqrt{3}} = a - 6\sqrt{3}$

(ii) $\frac{7+\sqrt{5}}{7-\sqrt{5}} - \frac{7-\sqrt{5}}{7+\sqrt{5}}$ Ans. (i)$a = 11\ b = -6$ (ii)$a = 0, b = 1$

3. Rationalise the denominator i)$\frac{2\sqrt{3}-\sqrt{5}}{2\sqrt{2}+3\sqrt{3}}$ ii) $\frac{3\sqrt{5}+\sqrt{3}}{\sqrt{5}-\sqrt{3}}$

Ans i) $\frac{18+2\sqrt{10}-4\sqrt{6}-3\sqrt{15}}{19}$ ii) $9+2\sqrt{15}$

4. Find two rational and irrational numbers between 2 and 2.5.
5. Locate $\sqrt{17}$ on the number line.
6. If $x= 9+\sqrt{7}$, $y= 9-\sqrt{7}$ find x^2+y^2. Ans.176
7. If $x=\frac{\sqrt{3}+\sqrt{2}}{\sqrt{3}-\sqrt{2}}, y = \frac{\sqrt{3}-\sqrt{2}}{\sqrt{3}-\sqrt{2}}$ find $x^2 + y^2$ Ans. 98
8. Prove that $\frac{1}{3-\sqrt{8}} - \frac{1}{\sqrt{8}-\sqrt{7}} + \frac{1}{\sqrt{7}-\sqrt{6}} - \frac{1}{\sqrt{6}-\sqrt{5}} + \frac{1}{\sqrt{5}-2} = 5$
9. If $a=2+\sqrt{3}$, find $a - \frac{1}{a}$ Ans. $2\sqrt{3}$
10. If both x-1 and x+1 are factors of $ax^3+x^2-2\square + \square$, find the values of a and b (Ans a=2,b=-1)
11. Factorise: $a^3 - 1728b^3$
12. If a+b+c=9 and ab+bc +ca = 26, find $a^2+b^2+c^2$ Ans 29
13. If x + 2a is a factor of $x^5 - 4a^2x^3 + 2x + 2a + 3$, find a. Ans. $\frac{3}{2}$
14. If both x-2 and $x - \frac{1}{2}$ are the factors of $px^2 + 5x + r$, Show that p = r
15. Without finding the cubes, find the value $(3x-2y)^3+(2y-4z)^3+(4z-3x)^3$
16. Express $0.6 + 0.\overline{7} + 0.4\overline{7}$ in the form of $\frac{p}{q}$ Ans. $\frac{167}{90}$
17. Write the degree of following:
    a) zero Polynomial
    b) non zero constant polynomial
18. Simplify: $\sqrt[4]{81} - 8\sqrt[3]{216} + 15\sqrt[5]{32} + \sqrt{225}$ Ans. 0
19. Check whether p(x) is a multiple of g(x) or not.
    $p(x) = 2x^3 - 11x^2 - 4x + 5$, $g(x) = 2x + 1$
20. Express in $\frac{\square}{\square}$ form. $3.1\overline{37}$

❖ **NOTE: DO ASSIGNMENT ON LOOSE SHEETS**

SCIENCE

DO ALL THE ASSIGNMENTS IN YOUR (Physics, Chemistry and Biology) NOTEBOOKS NEATLY.

PHYSICS ASSIGNMENT

SUBJECT: PHYSICS

STD: IX

MOTION:

1. Can the average speed of a moving object be zero? Why?
2. Give an example of a motion in which acceleration of an object is against the direction of motion.
3. A cyclist rides his cycle with a speed of 30 m/s for the first half and the next half-length he covers with a speed of 45 m/s. Find the average speed of the cyclist.
4. A body moving in a circle of radius 'r', covers ¼th of the circle. Find the ratio of the distance to displacement.
5. List the important of velocity-time graph?
6. A train starting from rest attains a velocity of 20m/s in 2 minutes. Assuming that the acceleration is uniform, find (I) the acceleration (II) distance travelled by the train, while it attained this velocity.
7. How long will it take for a body accelerating by 2 m/s^2 to gain a velocity of 10 m/s, starting from rest?
8. Write and derive the equations of motion involving uniform acceleration.
9. Define a vector quantity giving examples.
10. A car starts from rest and accelerates with 2 m/s2 for 10 seconds, After maintaining the velocity for 10 seconds, it comes to rest decelerating 1 m/s2 i) Draw the shape of V-t graph. II) Find the maximum velocity attained and the total distance travelled during the journey.
11. The brakes applied to a car produce a negative acceleration of 10 m/s^2. If the car takes 5 s to stop after applying brakes, calculate the distance covered by the car before coming to rest.
12. Draw a velocity-time graphs for the following (a) A body moving with a uniform acceleration. (b) Uniform retardation (c) Zero acceleration.
13. Name a physical quantity that (i) varies (ii) remains same in a uniform circular motion.

BIOLOGY ASSIGNMENT-

Draw neat diagrams of plant cell, animal cell, bacterial cell, nucleus, mitochondria, chloroplasts with proper labelling

CHEMISTRY ASSIGNMENT

Worksheet (Is Matter Around Us Pure?)

1. What is the general name of the materials which contain at least two pure substances and show the properties of the constituents?
2. Which of the following is a mixture?
   Salt, Air, Water, Alum, Sugar
3. Classify the following into elements and compounds:
   a. H_2O b. He c. Cl_2 d. CO e. Co
4. Name the property:
   (a) Which allows metals to be hammered into thin sheets.
   (b) Which enables metals to be drawn into wires.
5. Which of the following are 'pure substances'?
   Ice, Milk, Iron, Hydrochloric acid, Calcium oxide, Mercury, Brick, Wood, Air
6. What is the other name for impure substances? Give two examples of impure substances.
7. State three reasons why you think air is a mixture and water is a compound.
8. Explain why, hydrogen and oxygen are considered elements whereas water is not considered an element.
9. Compare the properties of metals and non- metals with respect to
   (i) malleability (ii) ductility, and (iii) electrical conductivity
10. Choose the solutions from among the following mixtures:
    Soil, Sea-water, Air, Coal, Soda-water
11. Give two reasons for supposing that water is a compound and not a mixture.
12. List five characteristics by which compounds can be distinguished from mixtures.
13. (a) Differentiate between homogeneous and heterogeneous mixtures.
    (b) Classify the following materials as homogeneous mixtures and heterogeneous mixtures.
    Soda-water, Wood, Air, Soil, Vinegar, Alcohol and water mixture, Petrol and water mixture, Chalk and water mixture, Sugar and water mixture, Copper sulphate solution.

SOCIAL SCIENCE

1. E.V.M. Machine on A 4 sheet
2. Political Parties and symbols on A 4 sheet
3. Code of conduct to be followed by leaders during Elections on A 4 sheet
4. Different methods used in Political Compaign during Elections
5. To prepare file on disaster management
6. Learn and write the syllabus done in class

INFORMATION TECHNOLOGY

- Make an A4 chart on any 1 topic: Mobile Computing, Data Science, Artificial Intelligence, 3D Graphics, Computer Security, Cryptography, Robotics.
- Make a Digital Poster on any 1 topic in Ms Word and apply proper formatting.
  - Artificial Intelligence
  - Robotics
  - Cyber security
  - Internet of things
  - Data Science
  - 5G Network Technology
- Make a PowerPoint presentation of 7-8 slides on any suitable topic and add the image in each slide with the description.