STEPHENS

INTERNATIONAL PUBLIC SCHOOL

Holidays' Homework

Session – 2023-24

Class : 9th

General Instructions:

1.   Use assignment sheets to do all the written work.

2.   Use a separate file (use A4 sheets) for project and activity work.

3.   Make separate file for each subject.

4.   Do your work neatly and beautify it.

5.   Revise Pre Mid Term Syllabus.

Subject : English

Q1.   You are going on a school picnic with your classmates and teachers. You are very excited. The night before the trip you sit down to write your diary. Describe what you have planned for the picnic and how you hope to enjoy yourself there. You are Rajesh. Write your diary in 100-150 words.

Q2.   You are Ankiit living in Punjab. You had to attend a wedding ceremony in Mumbai. Your father took you there by airplane. You are very excited as it was your first journey by plane. Write a diary entry in 100-150 words sharing your experience.

Q3.   Write a paragraph in about 120-150 words on the topic "Child Labour".

Q4.   Read the chapter "Iswaran The Storyteller" and write the character sketch of Iswaran.

Q5.   Write a motivational story/ an inspirational article or a descriptive paragraph of your choice. The writing should be original, reflecting your imagination, creativity and writing skills.

Q6.   Make a card and draw or paste the picture of Rabindra Nath Tagore on it. Also write one of his famous poems "Where The Mind Is Without Fear" inside the card.

विषय – हिन्दी

1. आप इस ग्रीष्मावकाश में जहाँ भी घूमने जाएँ वहाँ का यात्रा वृतांत चित्र सहित लिखें।

2. गरमी के मौसम में पानी के संकट पर दो मित्रों का संवाद अपने शब्दों में लिखें।

3. साक्षरता अभियान के अंतर्गत अपने घर या पड़ोस में काम करने वाले हमारे सहायक (हेल्पर्स) का साक्षात्कार करें और संवाद के रूप में लिखें।

4. भारत की कोई पाँच प्रमुख महिला पर्वतारोहियों के बारे में चित्रों सहित जानकारी एकत्रित करें।

5. भाई को सत्संगति का महत्त्व बताते हुए पत्र लिखें।

6. विद्यालय में आयोजित वृक्षारोपण कार्यक्रम का वर्णन करते हुए अपने मामा जी को पत्र लिखिए।

7. कोई एक स्वयं रचित कहानी को चित्रों सहित दर्शाएँ। (8 से 10 चित्र)

Subject : Mathematics
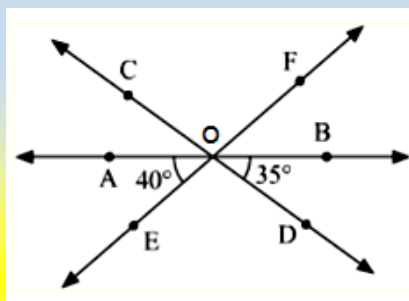
Multiple choice questions:-

1. The decimal expansion of an irrational number is non-terminating and _____.

2. The decimal form of $(625)^{\frac{-1}{4}}$ is _____.

3. The value of $\sqrt[4]{(81)^{-2}}$ is _____.

4. The value of $(100 + 2)^3$ is _____.

5. The zero of $p(x) = x - 5$ is _____.

6. The value of $p(x) = x^2 - 4x + 3$ where $x = 1$ is _____.

7. Sum of all angles of a triangle is _____.

8. When two lines intersect each other, _____ angles are equal.

9. The solution of $x - 2y = 4$ is _____.

    (a) (0, –2)   (b) (2, 0)   (c) (4, 0)   (d) (1, 1)

10. x-axis and y-axis divide the plane in four _____.

Short answer type questions:-

11. Find the product of $(2x + 3y)(2x - 3y)$

12. If $x^2 + \dfrac{1}{x^2} = 27$, find $x + \dfrac{1}{x}$.

13. Simplify:- $\dfrac{3^n \times 9^{n+1}}{3^{n-1} \times 9^{n-1}}$

14. Rationalise:- $\dfrac{4\sqrt{3} + 5\sqrt{2}}{\sqrt{48} + \sqrt{18}}$

Long answer type questions:-

15. Express $15.7\overline{12}$ as per $\dfrac{p}{q}$ form.

16. Factorise $4(x - y)^2 - 12(x - y)(x + y) + 9(x + y)^2$

17. AB, CD and EF intersect at O. Find the measure of $\angle AOC$, $\angle COF$, $\angle DOE$ and $\angle BOF$.

Activity

1. To make a square root spiral by using paper folding.

2. To verify $(a + b)^2 = a^2 + 2ab + b^2$ by paper cutting and pasting.

3. To obtain the mirror image of geometrical figure with respect to x-axis and y-axis.

Subject : Science

PHYSICS

Section – A

A. Very short Answer type questions:-

Q1. While riding on the bicycle, if we stop paddling, why does the bicycle begin to slow down?

Q2. A body P has mass 2m and velocity 5v. Another body Q has mass 8m and velocity 1.25v. Which of these has more momentum?

Q3. A body of mass 20kg moves with an acceleration of $2m/s^2$. Calculate change in momentum.

Q4. If F and F' are balanced forces then what will be the magnitude of F_2?

Q5. Two similar vehicles are moving with the same velocity on the road such that one of them is loaded and the other one is empty. Which of the two vehicles will require larger force to stop it? Give reasons.

B. Short Answer types questions.

Q6. State the action and reaction in the following:-
   (i)   Moving rocket
   (ii)   Firing a bullet from gun
   (iii)   A person walking on floor

Q7. A bus starts to slide over a horizontal surface with an initial velocity of 0.5 m/s. Due to friction, its velocity decreases at the rate $0.105 m/s^2$. How much time will it take for the body to stop?

Q8. How will the equations of motion for an object moving with a uniform velocity change?

Long answer type questions.

Q9. (i)   Define momentum. State its SI unit.
   (ii)   An object of mass 5kg is accelerated uniformly from a velocity of 4m/s to 8m/s in 8 sec. Calculate the initial and final momentum of the object. Also, find the magnitude of the force exerted on the object.

Q10. State Newton's 2nd law. Derive the mathematical relation of Newton's second law of motion.

Q11. Write three equations of uniformly accelerated motion. Also, state the symbols used.

Section – B

Write down the following practicals in your practical lab manual:-

1. Determination of the density of solid (denser than water) by using a spring balance and measuring cylinder.

2. Verification of the laws of reflection of sound. (These practicals should be done on lab manual only)

CHEMISTRY

Section – A

Very short answer type questions:-

Q1.   A student observed that water was boiling at 105°C in a pressure cooker. At this heat was cut off and the lid of the pressure cooker was opened. It was observed that water was still boiling even though heat was cut off. Give reason.

Q2.   What is dry ice? How is it prepared?

Q3.   Paints are often stirred before being put to use. Why?

Short answer type questions:-

Q4.   With proper explanation, explain whether the following statements are true or false.

    (a)   Sublimation occurs only when the solid is heated.

    (b)   Inter conversion of matter is a constant temperature process.

Q5.   Kidney beans (Rajmah) or whole grams (white or black) are kept in water for few hours before cooking. Why so? Explain.

Q6.   Prepare a solution of starch in water and find out whether it is true or colloidal solution or suspension on the bases of its properties such as transparency, filtration criterion and stability.

Long answer type questions:-

Q7.   Can physical and chemical changes occur together? Illustrate your answer.

Q8.   On blowing air into a balloon, it inflates. Why does it happen so? Explain.

Q9.   Tabulate the differences of three states of matter and differentiate between solution suspension and colloidal solution.

Section – B

Write down the following practicals in your practical lab manual:-

Preparation of

1.   Mixture

2.   Compound

3.   Using iron fillings and sulphur powder and distinguish between the both on the basis of

    ●   appearance i.e. homogeneity and heterogeneity

    ●   effect of heat

    ●   behaviour towards a magnet

    ●   behaviour towards carbon disulphide as a solvent

BIOLOGY

<u>Section – A</u>

Very short answer type questions.

Q1.   Name two cell organelles that have their own genetic material.

Q2.   Name the process in which diffusion takes place through selectively permeable membrane.

Q3.   Name the organelle with ribosome attached to it.

Q4.   Which type of plastids help in photosynthesis?

Q5.   Cell wall is made up of which component.

Short answer type questions.

Q6.   What are genes? Where are they located?

Q7.   What is plasmolysis? When does plasmolysis take place?

Q8.   If the swollen raisin is put into salt solution, what will happen?

Long answer type questions:-

Q9.   Give the functions of

      (a)   Endoplasmic Reticulation

      (b)   Golgi apparatus

      (c)   Mitochondria

Q10.   Differentiate between

      (a)   Protoplasm, Cyloplasm and Nucleoploasm

      (b)   Chloroplast, Chromoplast, Leucoplast

Q11.   Explain the structure and function of nucleus in detail.

<u>Section – B</u>

Write down the following practicals in your practical lab manual :-

(i)   Preparation of stained temporary mounts of

      (a) Onion peel

      (b) human cheek cells.

      Draw their labelled diagram.

(ii)   Identification of parenchyma, collenchymas and sclerenchyma tissue in plants.

(iii)   Striped, smooth and cardiac muscle fibres and nerve cells in animals from prepared slides. Draw their labelled diagrams.

Subject : Social Science

1. **ACTIVITY**
   (i) Make a photo collage based on the chapter "People as a Resource".
   (ii) Make a comparative study between economy and literacy rate of Gujarat and J&K.

2. **PROJECT**
   Prepare a detailed project on Disaster Management.

3. **Prepare short report on the "Russian Revolution".**

Subject : Computer

ACTIVITY

• **Prepare a presentation (ppt) showing the use of various kinds of keys of keyboard.**

• **Write down the function of different kinds of keys of keyboard.**

• **Make your class timetable in MS-Word (Open office) in tabular form.**

BE HAPPY AND Enjoy Your Holidays