PRAYAG PUBLIC SCHOOL
Summer Vacation Homework (2024-25)
Subject – Science
Clàss-9th
Physics

Q1. What are fundamental units in SI System? Name them along with their symbols and learn .

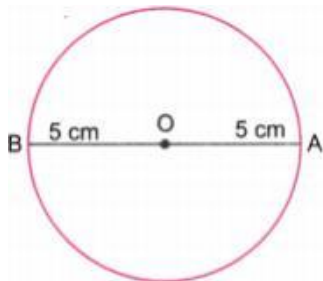Q2. Explain the meaning of derived unit . Write derived units of the following

      (a) Speed   (b) Force   (c) Work   (d) Pressure.   (e) Density
      (f) Electric current   (g) Frequency   (h) Acceleration   (i) Impulse .

Q3.A particle moves in a circle with O as centre and AO = OB = 5 cm, as radius, as shown in the figure.

    It starts from A. Calculate:

      (a) the distance covered, and   (b) the displacement, when it reaches B.

Q4. . Write and learn the following terms which pertain to motion

    (a) Speed   (b) Velocity   (c) distance. (d) displacement. (e) acceleration (f) re) retardation.   (f) negative displacement
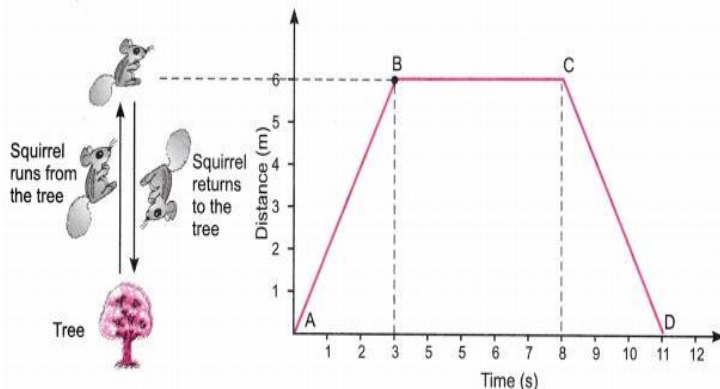
   Q5. Derive the following equation of motion by graphical method.

     $v = u + at.$, $v^2 = u^2 + 2as$ & $s = ut + \frac{1}{2}$

Q6 Derive relationship between angular velocity and linear velocity .

Q7. Suppose a squirrel is moving at a steady speed from the base of a tree towards some nuts. It then stays in the same position for a while, eating the nuts, before returning to the tree at the same speed. A graph can be plotted with distance on the x-axis and the time on y-axis

Observe the graph carefully and answer the following questions.

(i) Which part of the graph shows the squirrel moving away from the tree?

(ii) Name the point on the graph which is 6 m away from the base of the tree.

(iii) Which part of the graph shows that the squirrel is not moving?

(iv) Which part of the graph shows that the squirrel is returning to the tree?

(v) Calculate the speed of the squirrel from the graph during its journey

Q8. The brakes applied to a car produce an acceleration of 6 ms^{-2} in the opposite direction to the motion. If the car takes 2s to stop after the application of brakes, calculate the distance it travels during this time.

Q9. body 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 0.05 m/s^2. How much time will it take for the body to stop?

Q10. Define the term " Inertia " and state the its type along with the examples.

Q11. Define 1 newton force and state all effect of force .

Q12. Define the following types of force and categorised them into contact and non – contact force .

(a) Gravitational force   (b) Electrostatic force   (c) Muscular force   (d) Magnetic force

Q13. Differentiate between vector and scalar quantities and identify the following physical quantities as scalar or vector. Distance, displacement, force , mass , weight ,density , Speed , velocity, work , Electric current ,

Q14. Draw the graphs as per direction given below .

  (a) Draw the graph between distance and time when the object is in the rest position.

  (b) draw the graph between velocity and time when a car moves at a constant acceleration .

Q15 . Solve the following questions as per direction given below .

  (a) Solve all graphical based questions given in the page number 29 and 30 from the reference book .

  (b) Solve all numerical based problems from NCERT Textbook .

Social science

A- Practice sheet questions

History

1- Give brief description of King Louis XVI.
2- The French society was divided into two classes. Write in brief about them.
3- How did the American War of Independence inspire the French Revolution?
4- What do you know about the Declaration of the Rights of Man and Citizen?
5- Give a brief description of the reign of terror.
6- Describe the economic causes of the French Revolution of 1789.
7- Give a brief account of the course of the French revolution.
8- Discuss the legacy of the French Revolution of 1789.
9- What was the contribution of philosopher in French Revolution?
10- Write a short note on Olympe de Gouges?

Geography

11- How is the Standard Meridian of India calculated?
12- How does the latitudinal extent affect the duration of day and night of a place?
13- How has India's central and strategic location helped in establishing close contact with West Asia and other countries?
14- Why is the central location of India at the head of the Indian Ocean is considered of great significance.
15- Highlight the values of India's contacts with the outside world in ancient and medieval times.
16- How have the geographical features of India helped in fostering unity and homogeneity in the Indian society?
17- What is the Indian Standard Time?
18- Find out the names of three countries which have more than one Time Zone. How is the time calculated in these countries?

Economics

19- What is the importance of capital?
20- What do you know about an entrepreneur?
21- What are the modern methods of framing?
22- What was the effect of Green Revolution on the production of pulses?
23- What do you now about technological reforms?
24- What is the difference between multiple cropping and modern farming methods?
25- Describe the non-farm activities of Palampur.
26- What can be done so that more non-farm production activities can be started in villages?
27- What is the situation of transport and communication in Palampur?
28- What are the peculiarities of labour?

B- Project /Activity

Prepare a project work on topic "earthquake in Nepal in 2015", with the help of following points

(1) Introduction of earthquake,   (2) causes of earthquake,   (3) Geology of Nepal.

(4) Rescue and relief   (5) Aftermath,   (6) Repair and reconstruction

(7) international aid.   (8) Preparedness for earthquake and other relevant points.

IT Holiday Homework

1. Explain the concept of Word Processing.
2. List the various software available for word processing.
3. Write difference between a text editor and a word processor software. Write the name of any text editor or word processor available in market.

4. List the various components of open office writer suite. Explain each component in one line.
5. Compare the features of manual typewriter, electronic typewriter and word processing software.
6. What are the various methods for selecting the text in a document.
7. What is the default extension assigned to the document in Writer when you save it?
8. What is effective communication? write the 7C rules for communication.
9.Explain communication and define it's type.
10.Explain ICT Skill, write the various application of Icy.

English Literature
Answer the following questions (value based)
Q1. Machines can't replace human beings.' Explain this in 25-80 words with reference to the Lesson 'The Fun They Had'..
Q2. Do you think Asimov is warning us about the dangers of too much computerisation?
Q3. "What a waste!" What is Tommy referring to as a 'waste'? Is it really a waste? Why/Why not.
Q4. Write a diary describing music class experience you had recently at your school.
Q5.Write paraphrases of the poem "The road not taken "

English Language
(A) Complete the sentences with some, any, much, many, little, a little the little, few, a few and the few.
1. Ravi is a fruit vendor. He has had very…………education, he does not earn.................................money
However, with.........money he carns, he is able to live comfortably and educate his two daughters.

2. I had to abandon my dream of living in my own house for lack of financial support. If I had received ………help
from my siblings, I could have bought a house. However ....help that I
received from my............. close friends wasn't enough and left me completely distraught.

(B)There are some errors in each sentence. Spot the errors and write them correctly in present perfect continuous
tense.
3. Hamid has travelling all around the globe since 2011.
4. Sheethal has not been swim because of skin allergy.
5. We have been waited for the train since midnight.
6. The police been guarding this colony since last robbery incident.

Hindi

1 'कबीर की सखियां एवं सबद' का भावार्थ लिखिए और याद कीजिए।

2 'कबीर की सखियां एवं सबद' पाठ से संबंधित सभी प्रश्नों को याद कीजिए और लिखिए।

3 'ललद्यद के वाख' पाठ का भावार्थ लिखिए और याद कीजिए।

4 'ललद्यद के वाख' पाठ से संबंधित सभी प्रश्नों को लिखिए और याद कीजिए।

5 'दो बैलों की कथा' पाठ से संबंधित सभी प्रश्नों को याद कीजिए लिखिए।

6 'ल्हासा की ओर' पाठ से संबंधित सभी प्रश्नों को याद कीजिए और लिखिए।

7 'एक भारत श्रेष्ठ भारत' विषय पर लगभग 150 शब्दों में एक अनुच्छेद लिखिए।

8 आपके क्षेत्र में लगने वाले किसी एक मेले का वर्णन लगभग 200 शब्दों में कीजिए।

9 पर्यटन हेतु पिता और पुत्र के बीच संवाद लिखिए।

10 उपसर्ग-प्रत्यय एवं उसके भेद को चार्ट पेपर पर बनाइए।

Maths

1. Prepare a chart of Square and square root number from 2 to 30.
2. Prepare a chart of of cube and cube root from 2 to 25.
3. Write Biography about Hero of Alexandia , Euclid and Rene Descartes and 2 Indian mathematician and there role in maths .
4. Represent $\sqrt{2},\sqrt{3},\sqrt{5},\sqrt{7},\sqrt{11},\sqrt{4.3},\sqrt{9.1}$ on number line
5. Learn and write laws of exponent, algebraic identities, Herons formula, surface area and volume and solve two questions from each direct formula based.
6. Solve all hots questions (Page 30,31) and self assessment test(page 31)

- Note: Question 1 and 2 on chart paper
- Question 3 on A4 pages
- Question 4,5,6 in practice copy