



RAINBOW PUBLIC SCHOOL

[Affiliated to CBSE 10+2, New Delhi]
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HOLIDAY HOME WORK (2024–25)

CLASS – IX

SUBJECT – ENGLISH

1. Answer any three questions in 40-50 words.

- How old are Margie and Tommy? Had Margie ever seen a real book before? Why?
- Why did Margie's mother send for the county inspector? How did he solve the problem?
- Where does the traveller find himself? What problem does he face?
- Who was Evelyn Glennie? Who did notice her deafness first? When was it confirmed?
- What are the things the boy see on his way to the fair? Why does he lag behind?

2. Answer any two questions in 120-150 words.

- What are the main features of the Mechanical teachers and the classroom that Margie and Tommy have in the story?
- Why did Margie hate school? Why did she think the old kind of school must have been fun?
- Why does the lost child lose interest in the things that he had wanted earlier?

CLASS – IX

विषय – हिन्दी

- प्रेमचंद और माखन लाल चतुर्वेदी के जीवनी का सचित्र वर्णन करें।
- कबीर के तीन दोहों का सप्रसंग व्याख्या करें।
- किसान जीवन बाल समाज में पशु और मनुष्य के आपसी संबंधों का वर्णन करें।
- तिब्बती समाज का वर्णन करें।
- किसी भी व्यक्ति की पहचान कुल से होती है या कर्मों से तर्क सहित उत्तर दीजिए।
- समास की परिभाषा दें, और उनके भेदों को उदाहरण सहित लिखें। (रंगीन)
- पेड़ पौधों की अनियंत्रित कटाई को रोकने के लिए जिला वन्य अधिकारी को पत्र लिखें।
- आतंकवादी घटना पर चर्चा करते हुए दो मित्रों का संवाद लिखिए।
- समाज में महिलाओं को उचित सम्मान दिलाने हेतु आप कौन-कौन से प्रयास कर सकते हैं?
- अनुच्छेद लिखें :- 'भ्रष्टाचार एक समस्या'
संकेत बिंदु :- भ्रष्टाचार क्या है, भ्रष्टाचार पनपने का कारण, समाप्त करने के उपाय।

CLASS – IX

विषय :- संस्कृत

- प्रश्नोत्तरं पाठः-१, पाठ-२ च लिखत "एकपदेन व पूर्ण वाक्येन"
- वर्ण विच्छेदं कुरुत।
 - प्रसार्य
 - कृतार्थ
 - अवज्ञाम्
 - विद्वान्
 - तान्विच्छति
 - ज्ञान्तिम्
- अधोलिखित धातुपदानाम् पञ्च लकारे धातु रूपाणि लिखत।
 - स्था
 - नम्
 - कृ
 - अस्
- अधोलिखित शब्दानाम् शब्द-रूपं लिखत।
 - विद्वान्
 - पति
 - साधु
- विंशति यावत् सप्ततिः तावत् संख्या-पदानि संस्कृत भाषायम् हिन्दी सहितेन लिखत। (२०-७०)
- परियोजना कार्यम् :-
 - पञ्च वाद्य यंत्राणि चित्रं रचयित्वा नमानि सहितं लिखत।
 - स्वच्छरूपेण वर्णस्य वर्गीकरणं चार्ट पेपरपत्रोपरि रचयत।

1. Express $\sqrt{5}$, $\sqrt{6}$ and $\sqrt{7}$ on the real number line.
2. Rationalise the denominator of the following :
 - (i) $\frac{\sqrt{3} + \sqrt{2}}{\sqrt{3} - \sqrt{2}}$
 - (ii) $\frac{3\sqrt{5} + \sqrt{3}}{\sqrt{5} - \sqrt{3}}$
3. Find the value of x in the following :
 - (i) $2^{x-7} \cdot 5^{x-4} = 1250$
 - (ii) $5^{2x-1} - (25)^{x-1} = 2500$
4. What must be added to $x^3 - 3x^2 - 12x - 14$ so that the result is exactly divisible by $x^2 + x - 6$?
5. Find the zero of the polynomial in each of the following cases :
 - (i) $p(x) = x - 5$
 - (ii) $p(x) = 2x + 5$
 - (iii) $p(x) = (x - 1)(x - 2)(x - 3)$.
6. The following questions consist of two statement Assertion (A) and Reason (R). Answer these question selecting the appropriate option given below :
 - (a) Both A and R are true and R is the correct explanation of A.
 - (b) Both A and R are true but R is not the correct explanation of A.
 - (c) A is true but R is false.
 - (d) A is false but R is true.
 - (i) Assertion (A) : Polynomial $x^3 - 7x^2 - 8 = 0$ has four zeroes.
Reason (R) : Number of zeroes in any polynomial is equal to its degree.
 - (ii) Assertion (A) : An example of monomial of degree 5 is x^6 .
Reason (R) : A polynomial containing one term is called a monomial.
 - (iii) Assertion (A) : Value of $\left(\frac{8}{162}\right)^{-1\frac{1}{2}}$ is $\frac{9}{2}$.
Reason (R) : $a^m \times b^m = (a \times b)^m$
7. Simplify the following :
 - (i) $\sqrt[3]{24} + \sqrt[3]{81} - \sqrt[3]{192}$
 - (ii) $4\sqrt{2} - 2\sqrt{8} + \frac{3}{\sqrt{2}}$
8. If $x + 2a$ is a factor of $x^5 - 4a^2x^3 + 2x + 2a + 3$, find a .
9. **Project Work** : Make a project on number system.
10. Case study based questions –
 - (i) In a classroom of class IX, an activity on real numbers is done with the students. A student has to pick a card and has to answer the questions written on it. The card picked up first 4 students and their question written on it are given below. Find out its correct option answer.
 - (a) Which type of number is $\sqrt{10}$?
 - (b) $\frac{1}{3}$ is a/an _____ number.
 - (c) For what value of 'p' $\frac{251}{2^3 \times p^2}$ is a non-terminating repeating decimal.
 - (d) $(256)^{0.16} \times (256)^{0.09} =$ _____.
 - (ii) Mahesh wants to paint a wall of his room. He decides to paint the wall in two colours, pink and white, divided diagonally. The length and breadth of the wall are $(x + 4)$ and $(3x + 2)$ respectively. The diagonal of the wall is $x^2 + 3x$.
Based on the above information answer the following questions –
 - (a) The area of the wall is _____ polynomial.
 - (b) What is the area of the wall?
 - (c) If $x = 2$, then the area to be painted pink is?
 - (d) Mahesh wished to draw flowers in the square area of the wall. By how much length should be reduced?

CLASS – IX**SUBJECT - PHYSICS**

1. Solve the following :

- (i) On a 120 km track, a train moves the first 30 km at uniform speed of 30 km/h. How fast must the train travel in next 90 km so as to have average speed of 60 km/h for the entire trip?
- (ii) A train travels at a speed of 60 km/h for 0.52 h, at 30 km/h for the next 0.24 h and then at 0.71 h. What is the average speed of the train?
- (iii) Draw the velocity time graph for the object having –
 - (a) Constant velocity
 - (b) Uniform acceleration
 - (c) Non-uniform acceleration
- (iv) Deduce the all three equations of motion mathematically.
- (v) Deduce the equation is motion graphically.

CLASS – IX**SUBJECT - CHEMISTRY**

1. Project Work : Make a project on “Matter in our surrounding” which includes the following –

- (a) Matter
- (b) Classification of matter
- (c) Physical nature of matter
- (d) States of matter
- (e) Comparison between solid, liquid and gaseous states of matter.

2. Activity Work : To demonstrate that liquids do not possess any definite shape but have definite volume.

3. Activity Work : To demonstrate that the gas are highly compressible as compared to solids and liquids.

4. A sample of water was heated from 30⁰C to 45⁰C.

- (a) What were the initial and final temperature of water in kelvin scale?
- (b) How much was the rise in temperature on Kelvin scale?

CLASS – IX**SUBJECT - BIOLOGY**

1. Vacuoles provide :

- (a) Turgidity
- (b) Rigidity
- (c) Shape
- (d) Both (a) and (b)

2. Name the organ called powerhouse of the cell :

- (a) Mitochondria
- (b) Lysosomes
- (c) Golgi bodies
- (d) Ribosomes

3. _____ is the living semi permeable membrane.

4. Who found out that the body of a plant is made up of cells?

5. Who found that new cells arise from existing cells?

6. What is ‘suicidal bag’?

7. Write any three functions performed by the cell.

8. Describe the functions of nucleus.

9. Differentiate between prokaryotic cell & eukaryotic cells.

10. Write short notes on :-

- (a) Lysosomes
- (b) Vacuoles
- (c) Centrosomes

CLASS – IX**SUBJECT - HISTORY**

1. Draw up a list of democratic rights we enjoy today whose origins could be traced to the French Revolution.

2. Draw a comparison table of French Revolution and Indian freedom struggle.

CLASS – IX**SUBJECT - GEOGRAPHY**

1. Find out the longitudinal and latitudinal location of your State and District.
2. On the political map of India show the Indian states as directed below :
 - (a) Colour the states of North direction with Orange colour.
 - (b) Colour the states of North-east direction with Green colour.
 - (c) Colour the states of East direction with Yellow colour.
 - (d) Colour the states of South-East with Purple colour.
 - (e) Colour the states of South with Brown colour.
 - (f) Colour the states of South-West with Red colour.
 - (g) Colour the states of West with Blue colour.
 - (h) Colour the states of North-West with Pink.

Note : Use only Pestle Colour and also label the Name of the States.

CLASS – IX**SUBJECT - POL. SCIENCE**

1. Write the Preamble of Indian constitution in a decorative way using sketch colour pen and highlight the key words and also define them.
2. Paste the pictures of following government institutions :
 - (a) New and old Parliament of India.
 - (b) Prime Minister Office.
 - (c) Supreme Court of India.
 - (d) R.B.I (Reserve Bank of India)
 - (e) President House of India.

CLASS – IX**SUBJECT - ECONOMICS**

1. Enlist any five agricultural revolutions of India and explain them.
2. Explain about the followings in atleast 10 points :
 - (a) Reserve bank of India (RBI)
 - (b) World Bank
 - (c) International Monetary Fund (IMF)

CLASS – IX**SUBJECT - ARTIFICIAL INTELLIGENCE**

*All the following activities are part of the internal assessment.
For this student will be assessed out of 20 marks.*

1. Write a letter or an email to your future self about what you want to see in the future or what you want to remind to your future.

**** The following points can be included in letter/email:**

*Start with your interests, hobbies, and skills.

*Relate how AI can help you

*Write about your career you want to pursue and how AI will make an impact on that.

*Save the letter/ email in PDF format.

2. How do you think Artificial Intelligence can help you as you go about your daily life? Write at least 500 words.

3. Make a PPT for Effective Communication

Principles of Effective Communication

7C's of Effective Communication

Barriers in Communication and how to overcome it.

Upload your project/PPT file to Google Drive , One Drive or any other cloud storage and share the link in below given Google CLASSROOM .
