

KENDRIYA VIDYALAYA No. III, RRL JORHAT

CLASS : IX SUB: HINDI SUMMER VACATION HOLIDAY HOMEWORK 2022-

23

	कक्षा – नौवीं
1.	“दो बैलों की कथा” कहानी में जगह –जगह मुहावरों का प्रयोग हुआ है कोई पांच मुहावरे छांटिए और उनका वाक्यों में प्रयोग कीजिए।
2.	किन घटनाओं से पता चलता है कि हीरा और मोती में गहरी दोस्ती थी ?
3.	कबीर दास की दस विशेषताएं लिखिए ?
4.	आप अपने देश को कैसा बनाना चाहते हैं इस विषय पर अपने विचार लिखिए

KENDRIYA VIDYALAYA No. III, RRL JORHAT

CLASS : IX SUB: ENGLISH SUMMER VACATION HOLIDAY HOMEWORK

2022-23

1. Collect pictures of any 5 musical instruments, paste them on your copy and write about their names, sounds & origin, in one paragraph each. 10
2. Narrate the story of 'The Ant and the Cricket' in your own words and make a video recording of your story telling. (in school uniform). 10
3. Read the lesson 'The Little Girl' and answer the following:
Has your life as a child been different from or similar to that of Kezia? Has your perspective about your parents changed now? What steps would you like to take to build a relationship based on your understanding
4. Make one file with A4 size papers and write 5 sentences each in Simple Present Tense & Present Continuous Tense. 10
5. Make one 'poster' on 1/4th drawing sheet urging people to stay at home and to stay safe at this hour of crisis due to COVID 19 pandemic. 10

KENDRIYA VIDYALAYA No. III, RRL JORHAT

CLASS : IX SUB: MATHS SUMMER VACATION HOLIDAY HOMEWORK

2022-23

INSTRUCTIONS:

- Read all the questions carefully before solving. Write the solution of questions in Mathematics notebook.

- Complete the project separately on A4 sheets in neat and clear hand writing and attractive.
- Write your name, class and section clearly at the front cover page of project file.

Section A (Questions)

- 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.
- Classify the following numbers as rational or irrational with justification

<p>(i) $\sqrt{196}$</p> <p>(iii) $\sqrt{\frac{9}{27}}$</p> <p>(v) $-\sqrt{0.4}$</p> <p>(vii) 0.5918</p> <p>(ix) 10.124124...</p>	<p>(ii) $3\sqrt{18}$</p> <p>(iv) $\frac{\sqrt{28}}{\sqrt{343}}$</p> <p>(vi) $\frac{\sqrt{12}}{\sqrt{75}}$</p> <p>(viii) $(1+\sqrt{5}) - (4 + \sqrt{5})$</p> <p>(x) 1.010010001...</p>
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- Do as directed
 - Multiply: $x^3 - 3x^2 + 5x - 3$ by $x-2$.
 - Add : $5x^3 - x^2 + 7x - 3$ and $7x^3 - 3x^2 - 32$
 - Subtract: $x^3 - 3x^2 - 39$ from $14x^3 - 3$
- Find three rational numbers between
 - 1 and -2
 - 0.1 and 0.11
- Find three irrational numbers between
 - $\frac{5}{7}$ and $\frac{6}{7}$
 - $\frac{1}{4}$ and $\frac{1}{5}$
- Locate $\sqrt{5}$, $\sqrt{9.2}$ and $\sqrt{7}$ on the number line.
- Express the following in the form $\frac{p}{q}$, where p and q are integers and $q \neq 0$
 - 0.2
 - 0.888...
 - 5.2323...
 - 0.001
 - 0.2555...
- Determine the degree of each of the following polynomials.
 - $2x - 1$
 - 10
 - $x^3 - 9x + 3x^5$
 - $y^3(1 - y^4)$

9. Which of the following expressions are polynomials? Justify your answer:

(i) 8

(ii) $\sqrt{3}x^2 - 2x$

(iii) $1 - \sqrt{5x}$

(iv) $\frac{1}{5x^{-2}} + 5x + 7$

(v) $\frac{(x-2)(x-4)}{x}$

(vi) $\frac{1}{x+1}$

(vii) $\frac{1}{7}a^3 - \frac{2}{\sqrt{3}}a^2 + 4a - 7$

(viii) $\frac{1}{2x}$

10. If $a = \frac{3 + \sqrt{5}}{2}$, then find the value of $a^2 + \frac{1}{a^2}$.

11. Simplify

(i) $(1^3 + 2^3 + 3^3)^{\frac{1}{2}}$

(ii) $\left(\frac{3}{5}\right)^4 \left(\frac{8}{5}\right)^{-12} \left(\frac{32}{5}\right)^6$

(iii) $\left(\frac{1}{27}\right)^{-\frac{2}{3}}$

(iv) $\left[\left((625)^{-\frac{1}{2}}\right)^{-\frac{1}{4}}\right]^2$

(v) $\frac{9^{\frac{1}{3}} \times 27^{-\frac{1}{2}}}{3^{\frac{1}{6}} \times 3^{-\frac{2}{3}}}$

(vi) $64^{-\frac{1}{3}} \left[64^{\frac{1}{3}} - 64^{\frac{2}{3}}\right]$

(vii) $\frac{8^{\frac{1}{3}} \times 16^{\frac{1}{3}}}{32^{-\frac{1}{3}}}$

Section B (project work/activities)

12. Make a project on the title “ π - WORLD'S MOST MYSTERIOUS NUMBER”

13. Perform following activities and write in A4 sheets:

- **Activity 1: OBJECTIVE:** To construct a square-root spiral upto at least $\sqrt{23}$
- **Activity 2: OBJECTIVE :** To verify the algebraic identity :
 $(a+b)^2 = a^2 + 2ab + b^2$

14. CCT QUESTIONS

Question 3. Two numbers are said to be co-prime if their HCF is 1. Match the Pair of numbers given in column X with their corresponding properties in Column Y by drawing lines.

Column X	Column Y
A. (77, 33)	1. co primes as well as semi primes
B. (75, 88)	2. Neither semiprime nor coprime
C. (69, 77)	3. semiprime but not coprime
D. (56, 63)	4. coprime but not semiprime

Question 2. Two consecutive numbers from 10 to 25 which are semi-prime _____.

- a) 20 and 21
- b) 14 and 15
- c) 15 and 16
- d) 22 and 23



KENDRIYA VIDYALAYA No. III, RRL JORHAT

CLASS : IX SUB: SCIENCE SUMMER VACATION HOLIDAY HOMEWORK
2022-23

Subject : Physics

Ques1: Distinguish between speed and velocity.

Ques2: Define the term "average velocity". Write its formula and SI unit. Discuss the terms speed and velocity for a circular track motion of a car.

Ques3: Define or convey the significance of the following:

- 1. Positive acceleration.
- 2. Negative acceleration or retardation.
- 3. Zero acceleration.

Ques4: A stone is thrown vertically upward with a velocity of 5m/sec. if the acceleration of the stone during its motion is 10m/sec² in the downward direction, what will be the height attained by the stone and how much time will it take to reach there

Ques5: Project work on "UNIFORM CIRCULAR MOTION" and its applications. Explore this topic and prepare a report on your work in at least 4 page

Subject : Chemistry

1. Why is ice at 273 K more effective in cooling than water at the same temperature?
2. Give two reasons to justify—
 - (a) water at room temperature is a liquid.
 - (b) an iron almira is a solid at room temperature.
3. Convert the following temperatures to the Celsius scale.
 - (a) 293 K (b) 470 K.
4. Convert the following temperatures to the kelvin scale.
 - (a) 25°C (b) 373°C.
5. Project on latent heat and their application on A-4 page at least 4page

Subject : Biology

1. What are chromosomes made up of?
2. Which cell organelle is called the power house of a cell? Why?
3. What is endocytosis

KENDRIYA VIDYALAYA No. III, RRL JORHAT

CLASS : IX SUB: SOCIAL SCIENCE SUMMER VACATION HOLIDAY HOMEWORK 2022-23

- (1) The central location of India at the head of the Indian Ocean is considered of great significance. Why?
- (2) What are non-farming activities of village Palampur?
- (3) What are factors of production?
- (4) What is democracy?
- (5) What is reign of terror?
- (6) What were the reasons of French Revolution?
- (7) Why time is measured from 82 ½° longitude in India?
- (8) What are neighboring countries of India?
- (9) How electricity helps people of Palampur?
- (10) What is tithe and taille?
- (11) What are merits and demerit of democracy?

PROJECT WORK

Disaster Management

KENDRIYA VIDYALAYA No. III, RRL JORHAT

**CLASS : IX SUB: SANSKRIT SUMMER VACATION HOLIDAY HOMEWORK
2022-23**

1. Make a chart on 3 शब्दरूप and 3 धातुरूप
 2. Write a note on your favourite character in Sanskrit (Minimum 100 Word)
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