

## Kendriya Vidyalaya Rameswaram Holiday Homework 2021

Class - IX

## **Sub - Social Science**

#### Assignment

- Ques1. Describe the French Division of society at the time of French Revolution?
- Ques2. What was the role of Philosophers in the French Revolution?
- Ques3. What were the main causes of the FrenchRevolution?
- Ques4. What is the Significance of India's central location?
- Ques5. Why is the difference between the durations of day and night hardly felt at kanyakumari but not so in Kashmir?
- Ques6. Why 82°30' East Meridian has been selected as the standard Meridian of India?
- Ques7. Why is Democracy considered the best form of Government?
- Ques8. Give arguments against the Democracy.
- Ques9. Give arguments in favour of Democracy.
- Ques 10. Differentiate between Physical and Human capital?
- Ques 11. Define Physical capital, FIXED capital, WORKING capital and Human capital with examples?
- Ques12. What are the ill effects of Green Revolution?
- Ques13. What is the 'Multiple cropping' system?

#### Map work.

Show the following points on the outline map of India.

- The States through which the Tropic of Cancer passes.
- The Place situated on the three seas.
- The Strait which separates Sri Lanka from India.
- 4. The Island groups of India Lying in the Arabian sea and the Bay of Bengal.

Ques. Show the name of the states along with their capital on the outline map of India.(Use different colors to fill and make the map attractive)

#### Learning work

- 1. Exercise questions of geography 1st chapter.
- Exercise questions of history 1<sup>st</sup> chapter.
- 3. Exercise questions of political science 1st chapter.
- 4. Exercise questions of economics 1st chapter.
- 5. Holiday homework assignments.

Sub - English

**Dear students,** 

**Complete the holiday project on the topice of "Tenses"** 

# KENDRIYA VIDYALYA RAMESWARAM SUMMER VACATION PROJECTS ASSIGNMENT SUBJECT Science

**CLASS: IX** 

## **Instructions:**

- 1. Each student is requires to make a **Handwritten Project** report.
- 2. Write **Starting Date And End Date**.
- 3. Layout of your project must be as follows:

PAGE No.	CONTENT		
Cover Page	Your Name, Class, Section, Roll No (as written in final		
	exam), E-mail Id, Mobile No., Title of project		
1	Index Page (Table of contents – page titles)		
2	Brief discussion of project. How would you proceed?		
3 to 10	Complete detail/procedure of the project with diagrams,		
	graphs and proper examples		
11	Result/Conclusion		
13	List of resources used to make the project		
Last page	Declaration "This project is done by me independently."		
	And Sign by Parents and students both.		

4. Use only **A4 size paper** and write **Page number** on each sheet.

## **TOPICS OF THE SCIENCE PROJECT WORK (Choose only 1)**

#### **❖** COVID-19:

What are infectious diseases? Name some communicable viral diseases.

The disease COVID-19 has become a pandemic in 2020-21. Collect data on the number of COVID-19 cases in India from March, 2020 to April 2021 Using graphs interpret the data on the trend of the number of cases in our country.

What are the measures suggested by the Ministry of AYUSH to boost immunity so that the chances of catching the COVID-19 disease may be reduced? What are your responsibilities in today's situation?

- Study of adaptations of city flora to smog
- ❖ Smart Village
- **❖** Waste recycling
- **A study of air purification methods**
- **❖** Using solar energy to purify polluted or salt water
- **Find an ink that would decompose for recycling paper**
- Water pollution
- **❖** Global warming
- **The effects of X-Ray and other radiation on plants**
- **❖** Salivary Amylase and Starch Digestion
- **❖** A study of diffusion through cell membranes
- **Study and experiment with Milk**
- **Heat Content of Snack Foods**
- **Experimenting with various separation techniques (e.g. electrophoresis)**
- **Chemistry of Ice-Cream Making: Lowering the Freezing Point of Water**
- **❖** AGRICULTURAL PROCESS

#### **CHAPTER HOME ASSIGNMENT**



Note:- All the students prepare 20 MCQ Questions from Chapter-1 and Chapter-2

### KENDRIYA VIDYALAYA RAMESWARAM

## **SUMMER VACATION HOLIDAY ASSIGNMENT (2021-22)**

## CLASS- IX SUBJECT- MATHEMATICS

#### **INSTRUCTIONS:**

- Read all the questions carefully before solving. Write the solution of questions in Mathematics homework or Activity 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 of project file.

## **Section A (Questions)**

- **1.** 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.
- **2.** Classify the following numbers as rational or irrational with justification

(iii) 
$$\sqrt{\frac{9}{27}}$$

(iv) 
$$\frac{\sqrt{28}}{\sqrt{343}}$$

(v) 
$$-\sqrt{0.4}$$

(vi) 
$$\frac{\sqrt{12}}{\sqrt{75}}$$

(viii) 
$$(1+\sqrt{5}) - (4+\sqrt{5})$$

- **3.** Divide  $x^3-3x^2+5x-3$  by x-2 and find the quotient and remainder.
- 4. Find three rational numbers between
  - (i) -1 and -2
  - (ii) 0.1 and 0.11
  - (iii) 5/7 and 6/7
  - (iv) 1/4 and 1/5
- **5.** Locate  $\sqrt{5}$ ,  $\sqrt{9}$ .2 and  $\sqrt{7}$  on the number line.
- **6.** Express the following in the form p/q, where p and q are integers and q≠0
  - (i) 0.2
  - (ii) 0.888...
  - (iii) 5.2
  - (iv) 0.001
  - (v) 0.2555...
- 7. Determine the degree of each of the following polynomials.
  - (i) 2x 1
  - (ii) -10
  - (iii)  $x^3 9x + 3x^5$
  - (iv)  $y^3(1-y^4)$
- **8.** Find p(0), p(1) and p(-2) for the following polynomials
  - (i)  $p(x) = 10x 4x^2 3$
  - (ii) p(y) = (y + 2)(y 2)

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

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

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

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

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

10. Find the zeroes of the polynomial in each of the following,

(i) 
$$p(x) = x - 4$$

(ii) 
$$g(x) = 3 - 6x$$

(iii) 
$$q(x) = 2x - 7$$

- If  $a = \frac{3+\sqrt{5}}{2}$ , then find the value of  $a^2 + \frac{1}{a^2}$ . 11.
- By remainder theorem, find the remainder when p(x) is **12**. divided by g(x)

(i) 
$$p(x) = x^3 - 2x^2 - 4x - 1$$
,  $g(x) = x + 1$ 

(ii) 
$$p(x) = x^3 - 3x^2 + 4x + 50$$
,  $g(x) = x - 3$ 

**13.** 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) 
$$\frac{8^{\frac{1}{3}} \times 16^{\frac{1}{3}}}{32^{-\frac{1}{3}}}$$

- 14. Find the value of m, so that 2x 1 be a factor of  $8x^4 + 4x^3 16x^2 + 10x + m$
- **15.** Factorise the following:

(i) 
$$9x^2 + 4y^2 + 16z^2 + 12xy - 16yz - 24xz$$

(ii) 
$$25x^2 + 16y^2 + 4Z^2 - 40xy + 16yz - 20xz$$

## **Section B (project work/activities)**

- 16. Make a project on the title " $\pi$  WORLD'S MOST MYSTERIOUS NUMBER"
- **17.** Perform following activities and write in activity notebook:
  - Activity 1: <u>OBJECTIVE</u>: To construct a square-root spiral."
  - Activity 2: OBJECTIVE : To verify the algebraic identity :  $(a+b)^2 = a^2 + 2ab + b^2$

## 18. CCT QUESTIONS

#### **Semi Prime Numbers**

A natural number that can be expressed as a product of two prime numbers is called **semi-prime** number.

For example, 77 is semi-prime since it is a product of two prime numbers, 7 and 11.

[Remember that 1 is not prime.]

Question 1. Find the smallest semi-prime number.

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



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

- A. (77, 33)
- B. (75, 88)
- C. (69,77)
- D. (56, 63)

Column Y

- 1. co primes as well as semi primes
- 2. Neither semiprime nor coprime
- 3. semiprime but not coprime
- 4. coprime but not semiprime

## कक्षा-८

## हिन्दी परियोजना कार्य

(२०२०-२०२१)

## अपना परिचय

१-संज्ञा व उसके भेदों की परिभाषा देते हुए उदाहरण सहित लिखिए |

- २-विशेषण व उसके भेदों की परिभाषा देते हुए उदाहरण सहित लिखिए |
- ३- ५ मुहावरे का अर्थ व वाक्य में प्रयोग करके लिखिए |
- ४- दो दिन का अवकाश हेतु प्रधानाचार्य को प्रार्थना पत्र लिखिए |
- ५- १० विलोम शब्द लिखो |
- ६- निबंध लिखो |
  - मेरे प्रिय शिक्षक
  - स्वतंत्रता दिवस
  - कोरोना वायरस

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