KENDRIYA VIDYALAYA GC CRPF SONIPAT

SUMMER VACATION HOME-WORK (2026-27)

SUBJECT-MATHS, CLASS – 10

1.Prove that:

a) √2 is an irrational number.
b) √3 is an irrational number.
c) √5 is an irrational number.

2.Write 5 examples each of:

- Linear polynomial
- Quadratic polynomial
- Cubic polynomial

3.Find the HCF and LCM of 56 and 72 using prime factorization.

4.For the quadratic polynomial $x^2 - 5x + 6$, find its zeros and verify the relationship between the zeros and the coefficients.

5. Verify that:

- HCF × LCM = Product of the two numbers for

  Number 48 and 84.

6.Find the prime factorisation of 360 and express it as a product of primes.

7. Prove that

a) $3 + 2\sqrt{5}$ is irrational

b) $6-\sqrt{3}$ is irrational

c) $7\sqrt{2}$ is irrational.

9.Write the degree and number of terms in the following polynomials:

- $4x^3 - 3x^2 + 2x - 7$
- $x^2 + 2x$
- 7

10.Find the zero(s) of the following polynomials:

  - $x^2 - 7x + 10$
  - $x^2 + 2x - 15$

- $x^2 - 9$

11.If α and β are the zeros of the polynomial $x^2 - 3x + 2$, find:

- $\alpha + \beta$
- $\alpha\beta$
- Verify the relationship with coefficients.

12.Form a quadratic polynomial whose sum and product of zeroes are:

- (a) 4, 1
- (b) –3, 2

13.If one zero of the polynomial $x^2 + kx + 6$ is 2, find the value of k and the other zero.

14.Form a pair of linear equations in two variables using the following information and solve it graphically: Five years ago, Sheela was twice as old as Tina. Ten year later Sheela's age will be ten years more than Tina's age. Find their present ages. What was the age of Sheela when Tina was born?

15. Do all questions of Exercise 1.2, 2.2, 3.1, 3.2 and 3.3 in Notebook.

07/05/26

Holiday homework class 10th English

1. **Prepare a portfolio:**

Your name, class, section ,roll number, Passport size photograph, personal details-- like your strength your goals, your achievements, Favorite book. and learning goals of the year .Self reflection

2. **Make mind maps of :**

A letter to God

Dust of snow

Triumph of surgery

The thief story

Include- theme, characters, Plot, Summary, message, literary devices

3. **Creative task:**

Make a mini newspaper(2-3 pages) include Headlines, news report, article, Advertisements,

4. **Use study material shared with you:**

Download page number 45,46.47 and practice passages given

5. **Read** next story of supplementary book and write key points, new words, characters, and message of the story

कक्षा - दसवीं

1.*एक सुंदर डायरी बनाइए तथा निम्न बिंदुओं के आधार पर -

प्रिय डायरी,

तुम मेरी सबसे अच्छी दोस्त हो..... मैं अपनी अनकही बातें तुमसे कहना चाहती हूं.....

1.नए शब्द जो मैंने सीखे।

2 जब मेहमान ने किया परेशान।

3.सपना जिसने मुझे डरा दिया ।

4.बारिश का एक दिन।

5 मेरे सपनों का भविष्य।

6 फील्ड ट्रिप ,यादगार पल।

7 जब पहली बार मैंने किसी की मदद की , मेरा अनुभव ।

8 विश्व में फैलती अशांति।

9 कविता व कहानी जो मेरा दिल छू गई।

10 प्रेरणादायक घटना।

2. निम्न विषयों पर अनुच्छेद लिखें (शब्द सीमा - 120)

(i) साइबर सुरक्षा : जागरूकता ही समाधान

*साइबर सुरक्षा का अर्थ *वर्तमान में चर्चा का कारण *जागरूकता का प्रभाव

ii) स्वस्थ जीवन-शैली - *स्वस्थ जीवन-शैली की आवश्यकता

*स्वस्थ आदतें जिनका पालन किया जाना चाहिए *स्वस्थ जीवन-शैली के लाभ

iii) एक यादगार पारिवारिक अवकाश -

*कैसे मनाया? *यादगार क्यों है? * पारिवारिक अवकाश का महत्त्व

3.प्रतिदिन 10 नए शब्द अर्थ सहित लिखिए।

Sapna

(नोट- गृहकार्य एक अलग लेखन पुस्तिका में करें।)

CLASS -10

Holidays Homework - Science

Instructions:
1. Do the homework in a separate homework notebook.
2. Attempt all questions.
3. Draw neat and well-labeled diagrams.
4. Show all steps in balancing equations.

Class 10 Science Assignment

Chapters Covered:
1. Chemical Reactions and Equations
2. Life Processes
3. Light: Reflection and Refraction

Section A: Chemical Reactions and Equations

MCQs:
1. A reaction in which heat is released is called:
a) Endothermic b) Exothermic c) Displacement d) Decomposition
2. Which of the following is a combination reaction?
a) $CaCO_3 \rightarrow CaO + CO_2$
b) $H_2 + Cl_2 \rightarrow 2HCl$
c) $Zn + CuSO_4 \rightarrow ZnSO_4 + Cu$
d) $Fe + H_2O \rightarrow Fe_3O_4 + H_2$
3. Rusting of iron requires:
a) Oxygen only b) Water only c) Oxygen and water d) Carbon dioxide
4. The chemical formula of quicklime is:
a) $CaCO_3$ b) $Ca(OH)_2$ c) CaO d) $CaCl_2$
5. Which reaction is a redox reaction?
a) Neutralization b) Precipitation c) Oxidation and reduction d) Double displacement

Balance the following equations:
1. $Fe + H_2O \rightarrow Fe_3O_4 + H_2$
2. $Al + O_2 \rightarrow Al_2O_3$
3. $Na + H_2O \rightarrow NaOH + H_2$
4. $Ca(OH)_2 + CO_2 \rightarrow CaCO_3 + H_2O$
5. $Zn + HCl \rightarrow ZnCl_2 + H_2$

Short Answer:
1. What is corrosion? Give one example.
2. Define oxidation and reduction.
3. What is a displacement reaction? Give an example.

Long Answer:
Explain different types of chemical reactions with examples.

Section B: Life Processes

MCQs:

1. The process of breakdown of food to release energy is:
a) Respiration b) Digestion c) Circulation d) Excretion
2. The functional unit of kidney is:
a) Neuron b) Nephron c) Alveoli d) Villi
3. Which pigment is responsible for photosynthesis?
a) Hemoglobin b) Chlorophyll c) Melanin d) Keratin
4. In humans, digestion of protein begins in:
a) Mouth b) Stomach c) Small intestine d) Large intestine
5. Transport of water in plants occurs through:
a) Phloem b) Xylem c) Stomata d) Roots

Short Answer:

1. Define photosynthesis and write its equation.
2. What is the role of stomata?
3. Explain aerobic respiration.

Long Answer:

Explain the human digestive system with steps.

Diagram:

Draw and label the human heart with major parts.

Section C: Light – Reflection and Refraction

MCQs:

1. The angle of incidence is equal to:
a) Angle of refraction b) Angle of reflection c) Angle of deviation d) None
2. A concave mirror forms a real image when the object is:
a) Between F and P b) At F c) Beyond C d) At P
3. The SI unit of focal length is:
a) Meter b) Watt c) Pascal d) Joule
4. Refraction occurs due to change in:
a) Speed of light b) Direction only c) Frequency d) Amplitude
5. The refractive index depends on:
a) Color of light b) Medium c) Both a and b d) None

Short Answer:

1. State the laws of reflection.
2. Define refractive index.
3. What is power of a lens?

Long Answer:

Explain refraction of light through a glass slab with diagram.

Diagram:

Draw a ray diagram for image formation by a convex lens.

केन्द्रीय विद्यालयः ग्रुप केन्द्र के.रि.पु.बल सोनीपत

आवकाशिक गृहकार्यम्

विषयः संस्कृतम् **कक्षाः दशमी (10)**

* अनौपचारिक **पत्रम्** (2)

* **चित्रवर्णनम्** (2) (विद्यालयः & उद्यानम्)

* **स्वर-सन्धीनां** पुनरावृत्तिः कृत्वा प्रत्येकस्य उदाहरणानि लिखत।

यथा- यण्-सन्धिः= इ/ई + अच् = य्। उ/ऊ + अच् = व् । ऋ + अच् = र्

उदाहरणानि -

* **किम् शब्दरूपाणि** लिखत (पुँल्लिङ्ग-स्त्रीलिङ्ग-नपुंसकलिङ्गाः) ।

* **धातुरूपाणि** (पठ्, अस्, सेव) लट्-लृट्-लङ्-लोट्-विधिलिङ् लिखत।

* संस्कृत में **छात्र-प्रतिज्ञा** याद करके लिखें।

* **प्रथमः पाठस्य** पुनरावृति कुरुत ।

* **तव्यत् अनीयर्** च प्रत्ययौ 10-10 उदाहरणानि लिखत।

Summer Vacation holiday homework 2026-27

Social Science Class 10

1)Complete all the chapter's Question-answers in your note book.

2) Fill the following places in the map of India

* Dandi, Amritsar (Jallianwala Bagh), Ahemdabad, Chennai, Nagpur

3) Revise lower sharing, Resource & development, development chapter for PT-1 Test.

4) Revise all important questions of your Syllabus

5) Locate following places in map of India

- Narora, Salal Dam, Sariska Bird Sanctuary, Hirakud Dam

6) Project work on any one of following topic

- Consumer Rights
- Social Issues
- Sustainable Development

The following content should be included

- Introduction of the topic
- Objectives of the content
- Importance in human life
- Conclusion of the topic

Holiday homework

Artificial Intelligence

Class 10th

Solved PYQs for each topic, you must find and solve at least:

* 5 MCQs (Section A style)
* 3 Short Answer Questions (2 marks)
* 1 Case-Study or Long Answer Question (4 marks)

HOLIDAY HOMEWORK

ART EDUCATION

CLASS X

1. Make 5 landscape painting on A3 size sheet by using ant medium of colours.
2. Make 5 poster on social topic on A3 size sheet by using any medium of colours.

3. Make one Indian art painting on A3 size sheet .