L.R.S. ACADEMY

A Senior Secondary English Medium School, Nagina (Bijnor)
(Affiliated to C.B.S.E. New Delhi)

SUMMER HOLIDAY HOMEWORK

CLASS

X

Laying the foundation of excellence

Principal's message

Dear Students,

Summer vacation is a much-awaited time for rest, reflection, and rejuvenation. It offers a wonderful opportunity to relax, explore your interests, and spend quality time with your loved ones.

However, this break also gives you the chance to continue learning beyond the classroom. Read good books, try something creative, and take up activities that help you grow as a person. The holiday homework given to you is designed not just to revise your lessons, but also to encourage independent thinking and creativity.

Make sure to balance fun with responsibility. Stay safe, take care of your health, and use your time wisely. We look forward to seeing you refreshed and recharged after the holidays.

Wishing you a joyful and productive summer break!

Warm regards,

Noopur Chandra

Principal
LRS Academy, Nagina

Instructions to do holiday homework -:

1. Take separate thin notebook for each subject, cover each notebook & label properly.

2. Take care of your handwriting.

3. Cover the notebook properly & label it.

4. school will reopen on 01/07/2025 & Holiday homework will be summited at the same date.

5. Holiday homework marks will be added in the next exam.

हिन्दी

1. 'पोर्टफोलियो' तैयार करें। (फाइल)

2. दिए गए सभी विषयों पर एक - एक अनुच्छेद लिखिए। (कक्षा कार्य पुस्तिका में लिखिए)

   (क) एक नया इतिहास रचती महिमाएं।

   (ख) कृत्रित बुद्धिमता (आर्टिफिशियल इंटेलिज़ेंस) का दौर।

   (ग) साइवर युग, साइबर ठगी।

   (घ) बच्चे काम पर जा रहे है।

   (ड.) मन के हारे हार है, मन के जीते जीत।

L. R. S. ACADEMY, NAGINA
HOLIDAY HOME WORK- 2025-26
Class –X

ENGLISH

General Instructions:-

➢ Revise the chapters done from your text book (First flight and Footprint without Feet.)
➢ Complete NCERT questions if not done yet.
➢ Use sketch pens far headings.

(Reading Section)

Read the chapter from "the Diary of Anne Frank" Summary of the plot, main characters, your personal opinion, A lesson you learned.

(Writing Section)

Write a letter to Nelson Mandela as a modern-day student, telling him how your life inspired by him (120-150words)

(Grammar)

Create short Paragraphs (100-120 Wards) using at least 15 determiners.

Topic Suggestions:

➢ A Visit to a Library
➢ A Family Picnic

(Activity)

Create a double-sided poster: One side representing fire (desire) the other. 'Ice' (hatred). Add symbols, wards and Images.

MATHS

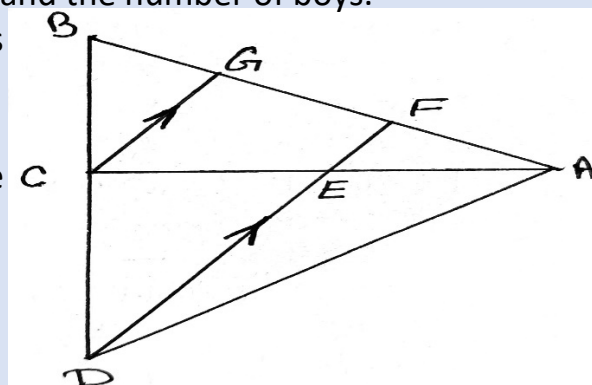Solve the following questions:

1. Using fundamental theorem of Arithmetic, find the H.C.F. of 96 and 404. Hence find their L.C.M.

2. Find the LCM (306, 1314), if H.C.F. (306, 1314) =18.

3. Show that 12th can not end with the digit 0 for any natural number n.

4. Prove that
   (i) $5 - 3\sqrt{2}$ is an irrational number.   (ii) $\sqrt{7}$ is an irrational number.

5. For what value of P, is (-4) a zero of the polynomials $x^2 - 2x - (7P + 3)$?

6. Find the zeroes of the following polynomials and verify the relation between the zeroes and their coefficients:
   (i) $\sqrt{3}\,x^2 - 8x + 4\sqrt{3}$ (ii) $2x^2 + 3x - 14$

7. If the squared difference of the zeroes of quadratic polynomial $P(x) = x^2 + 3x + k$ is 3; Find k.

8. If $\propto$ and β are the zeroes of the polynomial $P(x) = 2x^2 + 5x + k$ Satisfying the relation, $\propto^2 + \beta^2 + \propto \beta = \frac{21}{4}$, then find the value of K.

9. If $\propto, \beta$ are the zeroes of quadratic polynomial $3x^2 - 2x - 6$, then find the value of
   (i) $\propto^2 + \beta^2$ (ii) $\propto^3 \beta + \propto \beta^3$
   (iii) $\propto^3 + \beta^3$ (iv) $\frac{\propto}{\beta} + \frac{\beta}{\propto} + 2\left(\frac{1}{\propto} + \frac{1}{\beta}\right) + 3 \propto \beta$.

10. Draw the graph of the equations : $4x - y = 4; 4x + y = 12$ shade the area bounded by the lines and $y - axis$. Also find the vertices of the triangle so formed and its area.

11. Solve for x and y: $148x + 231y = 527$
    $231x + 148y = 610$

12. For what value of K, will the following system of linear equation has infinitely many solutions? $(K + 2)x + 6y = 3K + 2; 2x + 3y = 4$

13. A sum of money was distributed equally in a class of boys. Had there been 10 boys more, each would have received a rupee less and had there been 15 fewer, each would have received Rs. 3 more. Find the sum of money and the number of boys.

14. In the given figure, the line segment DF intersects the side AC of a ΔABC at the point E such that E is the mid-point of CA and $\angle AEF = \angle AFE$. Prove that $\frac{BD}{CD} = \frac{BF}{CF}$.

15. Through the midpoint M of the side of a parallelogram $ABCD$, The line BM is drawn intersecting AC in L and AD produced in E. Prove that $EL = 2BL$

Science (Biology)

Assignment
(Use only One notebook for Biology, Physics & Chemistry work together)

Write the answer of following questions-
1. How is human small intestine designed to increase the surface area for the absorption of digested food.
2. Mention the gastric secretions and write the function (s) of each.
3. State the mechanism of opening and closing of stomata.
4. What is starch test?
5. State the functioning of nephron.
6. Write three ways of excretion by plants.
7. State single circulation in fishes.
8. State transportation of water through xylem in plants.
9. Write two advantages of transpiration for plants.
10. Draw all the diagrams (on separate white plane papers) of chapter control and coordination.

Science (Chemistry)

Q1 Write a balanced equation for the following chemical reactions.

  i) Hydrogen + Chloride —-> Hydrogen chloride
  ii) Barium chloride + Aluminium sulphate —-> Barium sulphate + Aluminium chloride
  iii) Sodium + Water —-> Sodium hydroxide + Hydrogen
  iv) Sodium sulphate + Barium chloride -----→ Barium sulphate + Sodium chloride
  v) Lead nitrate + Potassium iodide ---→ Lead iodide + Potassium nitrate

Q2 A brown colour substance X is heated and gets converted into black colour substance Y . By passing a gas Z through Y it again gets converted into substance X.

  I. Name the substance X, Y and Z, also write their formulas.
  II. Write both the reactions involved.

Explain Oxidation and reduction with the help of above reactions.

Q3 A solution of a substance, 'X,' is used for whitewashing.

  I. Name the substance 'X' and write its formula.
  II. Write the reaction of the substance 'X' named in (i) above with water.

Q4 Write two reactions of each type of reactions.

  I. Combination reaction.
  II. Decomposition reaction as heat , light and electricity.
  III. Displacement reaction .
  IV.   Double displacement reaction.

Q5 Write any five reaction other than this chapter and balance them.

Take help of chapter 2, 3 and 4.

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Science (Physics)

Q1 Draw all the cases of ray diagram of both the mirrors. Mention about the position of object, image, size and nature.

Q2 Draw all the cases of ray diagram of both the lenses. Mention about the position of object, image, size and nature.

Q3 An object of size 7.0 cm is placed at 27 cm in front of a concave mirror of focal length 18 cm. At what distance from the mirror should a screen be placed so that a sharply focused image can be obtained? Find the size and nature of the image.

Q4 An object 5 cm in length is held 25 cm away from a converging lens of focal length 10 cm. Draw the ray diagram and find the position, size and nature of the image formed.

Q5 How are the power and focal length of a lens related? You are provided with two lenses of focal lengths 20 cm and cm and 40 cm, respectively. Which lens will you use to obtain more convergent light?

Social Science

1. A new student joins your class who speak a different language how would you make them feel welcome.
2. A friend is experiencing anxiety about an upcoming exam what words of encouragement would you offer?
3. Your local community plan to build a new park but it's threatening the habitat of local species what would you do to balance development and conservation.
4. You are working with an organisation that advocates for human right what would you do to raise awareness about a specific human right issue in your community.
5. **Project Guidelines**

   Every student must undertake one project on:

   1. **Consumer Awareness**

   2. **Social Issues**

   3. Sustainable Development

   The project will consist of 15 pages, including:

   1. Front page

   2. Acknowledgement

   3. Certificate

   4. Index

   5. Bibliography

   Additionally, one page should be dedicated to expressing gratitude (thanking page).

   Project Structure

   Front page (Page 1)

   Certificate (Page 2)

   Acknowledgement (Page 3)

   Thanking page (Page 4)

   Index (Page 5)

   Project content (Pages 6-14)

   Bibliography (Page 15)