



DAV PUBLIC SCHOOL, BISTUPUR, JAMSHEDPUR

HOLIDAY HOME WORK

2026-27

CLASS-X

SUBJECT: ENGLISH

1.Create mini magazine (Any one):

Magazine 1: "Voices & Values"

(Based on The Frog and the Nightingale)

Include:

- Imaginary interview of the Nightingale
- Comic strip (key scenes)
- Moral message

Magazine 2: "Pride & Pretence"

(Based on Mrs. Packletide's Tiger)

Include:

- Imaginary interview of Mrs Packletide
- Comic strip
- Moral message

General Instructions

- Make your work colourful and attractive
- Use headings, borders, and neat handwriting
- Add drawings, cuttings, and creativity

Where to do: SCRAPBOOK

2.Create a mini jungle scene (Any one scene)

Frog & Nightingale scene Or

Tiger hunting scene

For scene 1

Add- Trees, pond, frog and nightingale

For scene 2

Add- forest, tiger, a goat and a lady hunter

General instructions

- use clay or paper
- make inside a shoebox or shirt box.
- Add animals of your choice

SUBJECT: HINDI

ग्रीष्मावकाश गृहकार्य (2026-27)

कक्षा- दसवीं

विषय-हिंदी

- 1.संज्ञा , सर्वनाम , विशेषण , क्रिया , क्रिया-विशेषण , कारक और लिंग (परिभाषा लिखकर, भेद और उपभेद के नाम सहित उनके कम से कम 10-10 उदाहरण भी लिखें।)
- 2."सूरदास के पद" कविता कंठस्थ करें।
- 3.आज से 5 साल बाद आप किस पद पर कार्यरत होना चाहते है, अपनी माता जी को पत्र लिखकर बताए।
- 4.अनुच्छेद लेखन:-

(i) जीवन में नैतिक मूल्यों की आवश्यकता

नोट-उपर्युक्त दिए गए सभी लेखन कार्य को हिंदी की उत्तर-पुस्तिका (काँपी) में करें।

(प्रश्न संख्या 3 और 4 का उत्तर छात्र यथासंभव अपने शब्दों में दें।)

SUBJECT: MATHS

Showcase Your Math Journey: A Personal Portfolio

Create a portfolio that reflects your favorite mathematical concepts from our recent chapters. Beyond just theory, demonstrate how math "lives" in the world around us. Specifically, use clear examples to explain how we apply **Number Systems**, **Linear Equations**, and **Polynomials** to solve everyday problems.

REALNUMBERS-CASE STUDY**CASESTUDY1.**

To enhance the reading skills of grade X students, the school nominates you and two of your friends to set up a class library. There are two sections- section A and section B of grade X. There are 32 students in section A and 36 students in section B.



1. What is the minimum number of books you will acquire for the class library, so that they can be distributed equally among students of Section A or Section B?
 - a) 144
 - b) 128
 - c) 288
 - d) 272
2. If the product of two positive integers is equal to the product of their HCF and LCM is true then, the HCF (32 , 36) is
 - a) 2
 - b) 4
 - c) 6
 - d) 8
3. 36 can be expressed as a product of its primes as
 - a) $2^2 \times 3^2$
 - b) $2^1 \times 3^3$
 - c) $2^3 \times 3^1$
 - d) $2^0 \times 3^0$
4. $7 \times 11 \times 13 \times 15 + 15$ is a
 - a) Prime number
 - b) Composite number
 - c) Neither prime nor composite
 - d) None of the above
5. If p and q are positive integers such that $p = ab^2$ and $q = a^2b$, where a , b

are prime numbers, then the LCM (p, q) is

- a) ab
- b) a^2b^2
- c) a^3b^2
- d) a^3b^3

CASESTUDY2:

A seminar is being conducted by an Educational Organization, where the participants will be educators of different subjects. The number of participants in Hindi, English and Mathematics are 60, 84 and 108 respectively.



1. In each room the same number of participants are to be seated and all of them being in the same subject, hence maximum number participants that can accommodated in each room are
 - a) 14
 - b) 12
 - c) 16
 - d) 18
2. What is the minimum number of rooms required during the event?
 - a) 11
 - b) 31
 - c) 41
 - d) 21
3. The LCM of 60, 84and108is
 - a) 3780
 - b) 3680
 - c) 4780
 - d) 4680

4. The product of HCF and LCM of 60, 84 and 108 is

- a) 55360
- b) 35360
- c) 45500
- d) 45360

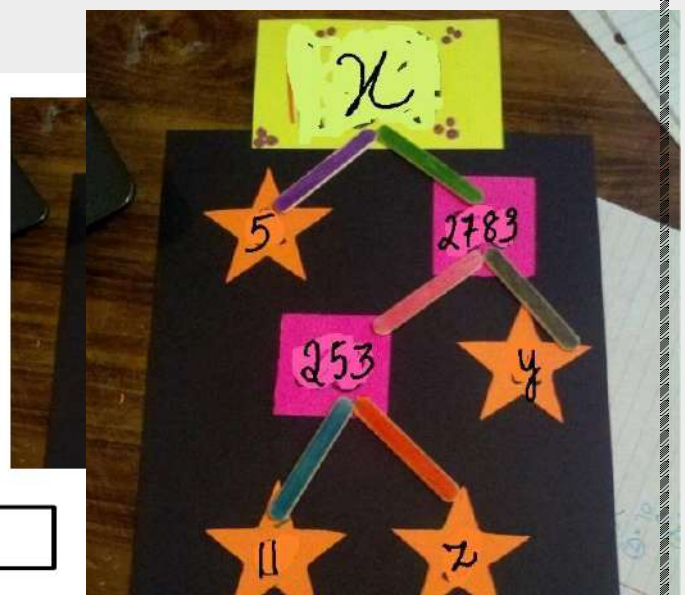
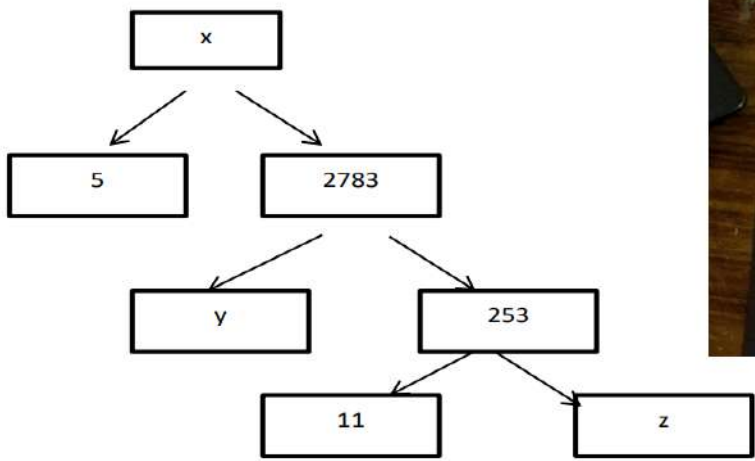
5. 108 can be expressed as a product of its primes as

- a) $2^3 \times 3^2$
- b) $2^3 \times 3^3$
- c) $2^2 \times 3^2$
- d) $2^2 \times 3^3$

CASESTUDY3:

A Mathematics Exhibition is being conducted in your School and one of your friends is making a model of a factor tree. He has some difficulty and asks for your help in completing a quiz for the audience.

Observe the following factor tree and answer the following:



1. What will be the value of x ?

a) 15005

b) 13915

c) 56920

d) 17429

2. What will be the value of y ?

a) 23

b) 22

c) 11

d) 19

3. What will be the value of z ?

a) 22

b) 23

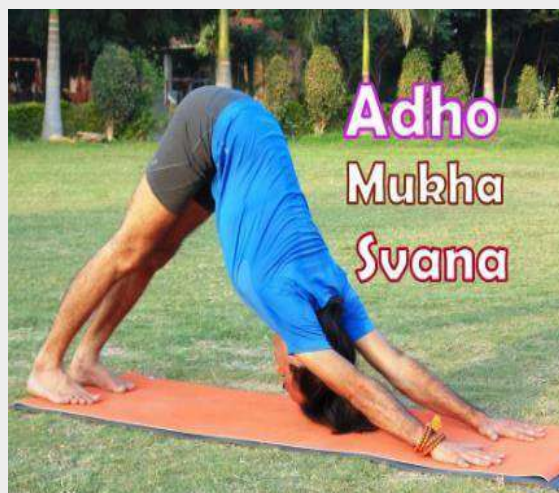
c) 17

d) 19

POLYNOMIALS- CASE STUDY

CASESTUDY1:

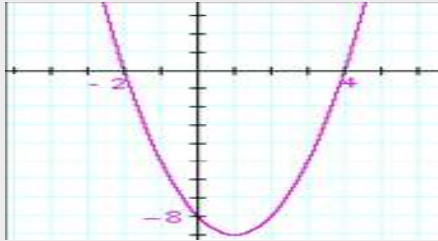
An asana is a body posture, originally and still a general term for a sitting meditation pose, and later extended in hatha yoga and modern yoga as exercise, to any type of pose or position, adding reclining, standing, inverted, twisting, and balancing poses. In the figure, one can observe that poses can be related to representation of quadratic polynomial.



1. The shape of the poses shown is
 - a) Spiral
 - b) Ellipse
 - c) Linear
 - d) Parabola
2. The graph of parabola opens downwards, if _____

- a) $a \geq 0$
- b) $a = 0$
- c) $a < 0$
- d) $a > 0$

3. In the graph, how many zeroes are there for the polynomial?



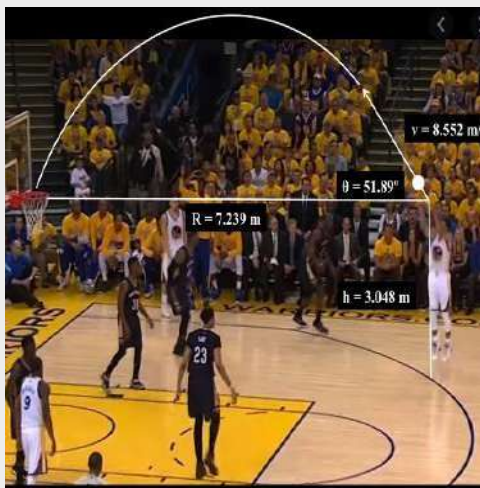
- a) 0
- b) 1
- c) 2
- d) 3

4. The two zeroes in the above shown graph are

- a) 2,4
- b) -2,4
- c) -8,4
- d) 2,-8

CASESTUDY2:

Basketball and soccer are played with a spherical ball. Even though an athlete dribbles the ball in both sports, a basketball player uses his hands and a soccer player uses his feet. Usually, soccer is played outdoors on a large field and basketball is played indoor on a court made out of wood. The projectile (path traced) of soccer ball and basketball are in the form of parabola representing quadratic polynomial.



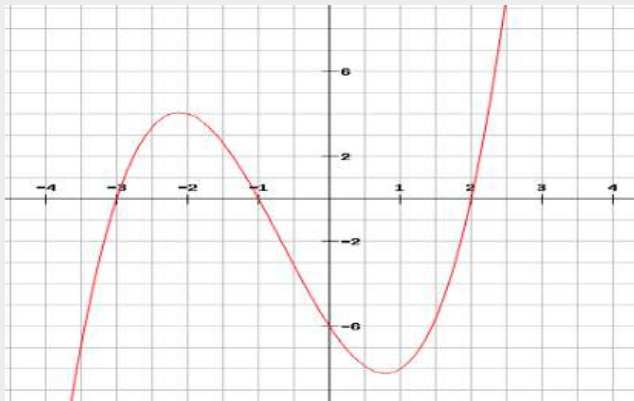
1. The shape of the path traced shown is

- a) Spiral
- b) Ellipse
- c) Linear
- d) Parabola

2. The graph of parabola opens upwards, if _____

- a) $a = 0$
- b) $a < 0$
- c) $a > 0$
- d) $a \geq 0$

3. Observe the following graph and answer



In the above graph, how many zeroes are there for the polynomial?

- a) 0
- b) 1
- c) 2
- d) 3

4. The three zeroes in the above shown graph are

- b) 2,3,-1
- c) -2, 3,1
- d) -3,-1, 2
- e) -2, -3,-1

5. What will be the expression of the polynomial?

- a) x^3+2x^2-5x-6
- b) x^3+2x^2-5x+6
- c) x^3+2x^2+5x-6
- d) x^3+2x^2+5x+6

LINEAR EQUATIONS IN TWO VARIABLES

CASESTUDY-1:

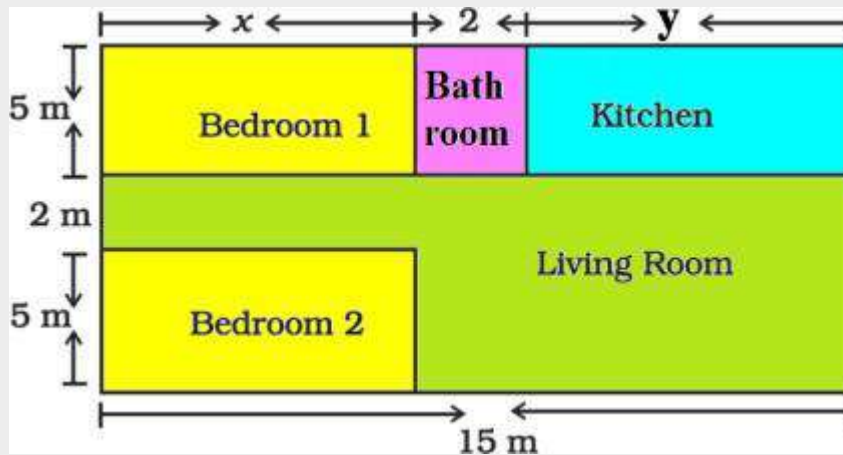
A test consists of 'True' or 'False' questions. One mark is awarded for every correct answer while $\frac{1}{4}$ mark is deducted for every wrong answer. A student knew answers to some of the questions. Rest of the questions he attempted by guessing. He answered 120 questions and got 90 marks.

Type of Question	Marks given for correct answer	Marks deducted for wrong answer
True/False	1	0.25

1. If answer to all questions he attempted by guessing were wrong, then how many questions did he answer correctly?
2. How many questions did he guess?
3. If answer to all questions he attempted by guessing were wrong and answered 80 correctly, then how many marks he got?
4. If answer to all questions he attempted by guessing were wrong, then how many questions answered correctly to score 95 marks?

CASESTUDY-2:

Amit is planning to buy a house and the layout is given below. The design and the measurement has been made such that areas of two bedrooms and kitchen together is 95 sq.m.



Based on the above information, answer the following questions:

1. Form the pair of linear equations in two variables from this situation.
2. Find the length of the outer boundary of the layout.
3. Find the area of each bedroom and kitchen in the layout.
4. Find the area of living room in the layout.
5. Find the cost of laying tiles in kitchen at the rate of Rs.50 per sq.m

SUBJECT: PHYSICS

Q1) Rahul conducts an experiment using an object of height of 10 cm and a concave lens with a focal length of 20 cm. The object is placed at a distance of 25 cm from the lens. Can the image be formed on a screen?

- (a) Yes, as the image formed will be real
- (b) Yes, as the image formed will be erect
- (c) No, as the image formed will be virtual
- (d) No, as the image formed will be inverted

Q2) The image of an object placed in front of a convex mirror is formed at

- (a) the object itself
- (b) twice the distance of the object in front of the mirror
- (c) half the distance of the object in front of the mirror
- (d) behind the mirror

QII-Answer the questions briefly(VSA)

Q1. Draw a ray diagram to show the refraction of light through a glass prism. Mark on it

- (a) the incident ray (b) the emergent ray
- (c) the angle of deviation.

Q2 What is meant by spectrum? How can we combine the components of white light after a prism has separated them?

Q3- 3 cm high object is placed at a distance of 80cm from a concave lens of focal length 20cm. Find the size of the image formed.

Q4-A concave mirror produces three times magnified (enlarged) real image of an object placed at 10cm in front of it. Where is the image located?

Q5- Find the focal length of a lens-2.0D. What type of lens is this?

SUBJECT: CHEMISTRY

1. Write formula of following compounds:

- (a) Blue Vitriol
- (b) Green Vitriol
- (c) White Vitriol
- (d) King of Acids

2. Write any two observations:

- (a) When potassium iodide solution is added to lead nitrate solution
- (b) When ferrous sulphate crystals are heated
- (c) When electricity is passed through water
- (d) When magnesium ribbon is burning

3. Write any one example of endothermic and exothermic reaction.

4. A shiny brown coloured element "X" on heating in air becomes black in colour.

Name the element "X" and black coloured compound.

5. Differentiate between photochemical and thermal decomposition reaction.

6. An aluminium can is used to store ferrous sulphate solution.

It is observed that in few days holes appeared in the can.

Explain the observation and write chemical equation.

7. List any ten chemical reactions and state its kind.

SUBJECT: BIOLOGY

Biology Holiday Home Work to be done in **Biology** Notebook.

1. Roll no 1-15. Design two characters based on a biological entity related to nutrition in human beings . Mention the impact of poor nutrition on respiratory health,
2. Roll no 16-30. Take a cut out and paste the "Nutrition Facts" labels from 3 different snack packets (e.g., chips, biscuits, instant noodles) highlighting the amount of Sugar, Sodium (Salt), and Trans Fats. Below each label, they write a 3-line "Health Verdict" on whether this snack is a "Hero" or a "Villain" for the body and why.
3. Roll no 31-45.

Gather data from public health sources to know the impact of poor nutrition on respiratory health and how urban pollution affects oxygen uptake in different diets.

4. Roll no 46-55

The "Air Quality" Blotter Test (Pollution & Your Lungs)

Take a clean white tissue paper or a cotton square and tape it outside their window or balcony for 48 hours. In the notebook, paste that tissue and observe the dust/soot particles collected.



Explain how the Cilia (tiny hairs) and Mucus in the nose act like this tissue paper to protect the lungs from the same dust.

Write the various disorders in respiratory system due to bad habits and air pollution.

SUBJECT: HISTORY/POLITICAL SCIENCE

HISTORY & POLITICAL SCIENCE

<p>🎯 Objective</p> <p>Develop analytical and research skills Understand historical events and democratic processes Connect theory with real-life examples Improve presentation and project-writing skills</p>	<p>📌 Instructions for Students</p> <p>Choose project from History OR Political Science as per your Roll. No. Project must be handwritten (10–15 pages) Include maps, case studies, pictures, and diagrams Use NCERT textbook as primary source PREPARE IN YOUR NOTEBOOK NOT IN FILE</p>

 Compulsory Project Format A. Cover Page B. Certificate C. Acknowledgement D. Index E. Introduction F. Main Content (with headings/subheadings) G. Case Studies / Maps / Pictures H. Conclusion I. Bibliography	 Creative Ideas for Students Draw timeline charts of movements Create mind maps for democracy concepts Use real-life examples (elections, policies) Add newspaper clippings
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SECTION- A

HISTORY PROJECT TOPICS

(Book: India and the Contemporary World – II)

Suggested Topics:

Rise of Nationalism in Europe: - (French Revolution, unification of Germany & Italy) (Roll. No. 1-12)

Nationalism in India :-(Non-Cooperation & Civil Disobedience Movement, role of Mahatma Gandhi) (Roll. No.13-24)

The Making of a Global World: - (Trade, colonisation, globalisation roots) (Roll. No. 25-36)

Print Culture and the Modern World: - (Role of printing press in spreading ideas) (Roll. No. 37-48)

Industrialisation and Its Impact: - (Factories, workers, urbanisation) (Roll. No. 48 onwards)

SECTION -B

POLITICAL SCIENCE PROJECT TOPICS

(Book: Democratic Politics – II)

Suggested Topics:

Power Sharing in Democracy: - (Case studies of Belgium and Sri Lanka) (Roll. No. 1-12)

Federalism in India :-(Centre-State relations, decentralisation) (Roll. No.13-24)

Gender, Religion and Caste:-(Social divisions and politics) (Roll. No. 25-36)

Political Parties in India :-(Functions, national & regional parties) (Roll. No. 37-48)

Outcomes of Democracy :-(Economic development, equality, accountability) (Roll. No. 48 onwards)

SUBJECT: GEOGRAPHY

(To be done in the Geography Notebook)

1. Make a poster with a slogan focusing on 'Sustainable Development' OR 'Save Soil'.

2. Resource Audit Checklist

Survey your home to identify three renewable and three non renewable resources used daily. Create a sustainable switch list explaining how each non renewable resources can be replaced or reduced to promote sustainable development.

SUBJECT: ECONOMICS

Make a project work on Sustainable Development, focusing on balancing economic growth with environmental protection. Key topics include the 17 UN Sustainable Development goals, resource management in India and the impact of modernisation on sustainability

SUBJECT: AI

Subject Code: 417

Task: AI Project Cycle Presentation

Students are required to prepare a PowerPoint presentation on the Stages of AI Project Cycle.

Instructions:

1. Choose any one topic from the following domains:

- Data Science
- Computer Vision
- Natural Language Processing

2. Your presentation must include the following stages:

- Problem Scoping
- Data Acquisition
- Data Exploration
- Modelling
- Evaluation

3. The presentation should:

- Contain 10–15 slides
- Be neat, clear, and well-organized
- Include examples or diagrams

4. Mention:

- Project Title
- Your Name, Class & Section

Submission:

Submit the presentation after the holidays

Note: Creativity and clarity will be considered for evaluation.

THE END