

ST. ANDREWS SCOTS SR. SEC. SCHOOL
9th Avenue, I.P Extension, Patparganj, Delhi-110092

**Winter Holiday Homework
(Session-2025-2026)
Class IX**

*“Develop a passion for learning.
If you do, you will never cease to grow.”*

— Anthony J. D'Angelo

ENGLISH

Instructions:

- *Do all the holiday homework questions in A4 size sheets.*
- *Complete your English Q/A and worksheets and learn it.*

Integrated Grammar:

1. Choose the best word from the options given in bracket to complete the following passages:

Human civilisations have been around (a) (at, on, for, in) a paltry 12,000 years, barely a (b) (many, few, some, each) seconds (c) (at, in, on, of) the geological clock. In that short amount (d) (of, on, with, at) time, we've managed (e) (at, to, of, for) create quite a ruckus, etching our dominance (f) (at, in, off, over) nature with our villages, towns, cities and megacities. The rapid increase of human population has left us battling with other species for limited resources.

2. Rearrange the following words in their right order:

- a. It/ is / not /easy too/ play /a musical instrument / as /it /requires /great skill /and /dedication.
- b. After /the /storm/ the / sky/ cleared /up/ revealing a / breathtaking/ sunset/ over / the/ horizon.
- c. The / scientist/ conducted /a/ series/ of/ experiments /to /test/ the /hypothesis/ and/ gather/ meaningful /data.
- d. In/ the/ ancient/ city/ the /ruins/ of /an/ old /temple/stood /as a/ testament/ to/ its/ rich/ history.
- e. The /detective/ carefully/examined/ the/ crime /scene/collecting/ evidence/to/ unravel/ the/ mystery.
- f. The /athletes/ trained/ rigorously/ for/ months/ to /prepare/ for/ the/ upcoming / Championship
- g. The/ art/ gallery/ showcased / a /diverse/ collection/ of /paintings /sculptures/and / other/ forms /of /artistic /expression.
- h. With/ a /sudden /burst /of /energy/the/team /scored /three /consecutive /goals/securing/ their /victory.
- i. The /chef/ skillfully/combined /various /ingredients/ to/ create/a /unique/ and / flavourful/ dish.
- j. Despite/ facing/ numerous /challenges/ the /team /persevered/ and /emerged/ victorious/ in/ the/ end.

3. The following passage hasn't been edited. There is one error in each line. Write the incorrect word and the correction against the correct question number.

Louis Braille, on 1825, developed a special. a)
script for the blind. It has known as. b)
a Braille script. The letters in it are formed with. c)
raised dots on thick paper. Blind people might. d)
read these dots by running his fingers. e)
lightly to them, across the page. Today, f)
thousands of books on almost every subject are available in Braille.

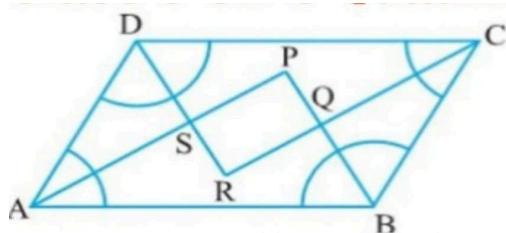
Literature:

4. Describe Corporal Turnbull.
5. What did the professor mean by intelligent reading?
6. What made John a pescuit get off at Coketown?
7. Describe the ironic ending of the story, Best Seller.
8. How did the poet feel in the old dentist's chair?
9. How was Harold Bramble at the age of ten?
10. Why was Jerry Fisher's anger directed against Bill Brahmble and Major Percy?
11. What made Mr.Bramble return home leaving his training midway?
12. Harold is considered to be fond of only intellectual activities. He proves to be much maturer than his parents think. How?
13. What was a constant source of amazement to Mrs. Bramble?
14. Who was sitting on chair no.9 ? What was he reading? What sort of views were exchanged between him and the narrator?
15. What was John A. Pescud's opinion about best sellers? Why?

MATHS

Worksheet 01

1. Show that the bisectors of angles of a parallelogram form a rectangle.



2. Determine rational number p and q.

$$\frac{7 + \sqrt{5}}{7 - \sqrt{5}} - \frac{7 - \sqrt{5}}{7 + \sqrt{5}} = p - 7\sqrt{5} q.$$

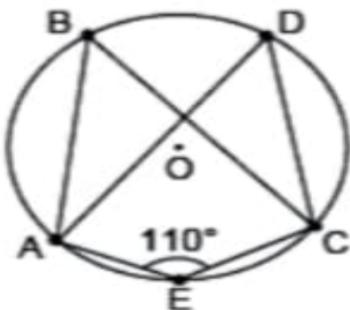
3. If $p(x) = x^3 + 3x^2 - 2x + 4$, find the value of $p(-2) + p(1) + p(0)$.
 4. Check whether the polynomial $f(x) = 4x^3 + 4x^2 - x - 1$ is a multiple of $2x+1$.
 5. If the non-parallel sides of a trapezium are equal, prove that it is cyclic.
 6. A cloth having an area of 165 m^2 is shaped into the form of a conical tent of radius 5 m

- How many students can sit in the tent if a student, on an average, occupies $\frac{5}{7}$ on the ground?
- Find the volume of the cone.

 7. A random survey of the number of children of various age groups playing in a park was found as follows: Draw a histogram to represent the data.

Age(in years)	Number of children
1 – 2	5
2 – 3	3
3 – 5	6
5 – 7	12
7 – 10	9
10 – 15	10
15 – 17	4

8. In the given figure, ABCD is a cyclic quadrilateral and O is the centre of the circle. If $\angle AEC = 110^\circ$, then find (a) $\angle ABC$ (b) $\angle ADC$.

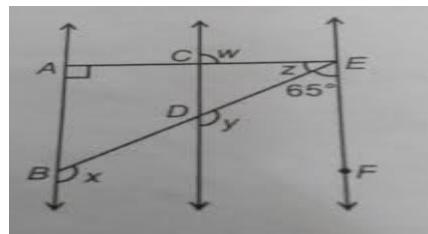


9. The edges of a triangular board are 6cm, 8cm and 10 cm. Find the cost of painting it at the rate of 25 paisa per cm^2 .

If $x = 2 + 3\sqrt{2}$, then find the value of $\left(x + \frac{14}{x}\right)$.

Worksheet 02

- Rationalize the denominator and simplify $\frac{2\sqrt{6}-\sqrt{5}}{3\sqrt{5}-2\sqrt{6}}$
- If $a + b + c = 6$ and $ab + bc + ca = 11$, find the value of $a^3 + b^3 + c^3 - 3abc$.
- Find the value of k , when $x - 1$ is a factor of $4x^3 - 3x^2 - 4x + k$
- AC and BD are chords of a circle which bisect each other. Prove that:
 - AC and BD are diameters;
 - ABCD is a rectangle.
- The internal and external diameters of hollow hemispherical vessel are 24 cm and 25 cm respectively. If the cost of painting 1cm^2 surface area is Rs. 1.5, find the total cost of painting the vessel all over.
- The surface area of a sphere of radius 5 cm is five times the area of the curved surface area of a cone of radius 4cm. Find the height of the cone.
- In the given figure, $AB \parallel CD$ and $CD \parallel EF$. Also $EA \perp AB$ and $\angle BEF = 65^\circ$. Find the values of x , y and z .



- Write any four solutions of the linear equation $3x - y = 2$.
- P is the midpoint of side AB of a parallelogram ABCD. A line through B parallel to PD meets DC at Q and AD produced at R. Prove that (i) $AR = 2BC$ (ii) $BR = 2BQ$
- The following table shows a frequency distribution for the speed of cars passing through a particular spot on a highway. Draw a histogram with frequency polygon representing the given data

Speed of car (km/h)	30 - 40	40-50	50-60	60-70	70-80	80-90	90-100
Frequency	3	6	25	40	15	28	13

- Plot the points $(-2, -1)$, $(-1, -4)$, $(-4, 1)$ and check whether they are collinear or not
- ABC is an isosceles triangle with $AB = AC$. P and Q are points on AB and AC respectively such that $AP = AQ$, Prove that $\angle ACP = \angle ABQ$, and $CP = BQ$.

SOCIAL STUDIES

Instructions:

- *Do the following questions in any of your Social Studies' notebooks.*
- *Complete your notes of physics, chemistry and biology.*
- *Revise all the work done in class.*
- *Complete the project file.*

Worksheet

1. What was proposed by Montesquieu in his book 'The Spirit of the Laws'?
2. How were the liberals different from the radicals?
3. When was the Enabling Act passed? What were its provisions?
4. What was Hitlers foreign policy?
5. Name the three parallel ranges of the Himalayas and state one typical characteristic of each.
6. Why are rivers important for the country's economy?
7. 'India has diverse climatic conditions'. Explain by giving two examples each of temperature and precipitation.
8. State any three characteristics of democracy.
9. What were the three efforts made by the people of South Africa to struggle against the apartheid system?
10. What makes an election democratic?
11. Why was the Mandal Commission appointed by the Indian Government?
12. What do you know about 'Sarva Shiksha Abhiyan'?
13. Explain the Rural Employment Generation Program started by the government to reduce poverty.
14. What is meant by buffer stock? Why is buffer stock created by the government?
15. How is food security ensured in India?

SCIENCE

Instructions:

- Do this worksheet in your respective subject registers.
- Complete your notes of physics, chemistry and biology.
- Revise all the work done in class.
- Complete lab manual.

Worksheet

Biology-

1. Why is parenchyma called a permanent tissue? Name two special types of parenchyma. Mention their specific roles in plants.
2. Differentiate between voluntary and involuntary muscles.
3. Describe the structural features of cell membrane and cell wall.
4. Discuss the role of hybridisation in crop improvement.
5. What is animal husbandry? Differentiate between milch and drought animals.

Chemistry-

1. State the law of conservation of mass. Explain it with the help of a chemical reaction.
2. Explain Dalton's atomic theory. Write its main postulates. Mention any two limitations of this theory.
3. Define atomic mass and molecular mass. How are they calculated? Explain with examples.
4. What are ions? Explain the formation of positive and negative ions with examples.
5. Define molar mass. Calculate the molar mass of:
 - Calcium carbonate (CaCO_3)
 - Ammonia (NH_3)

Physics-

1. A body of mass 2 kg is thrown vertically upward with a velocity of 20 m s^{-1} . Calculate:
 - a. the maximum height reached
 - b. the total mechanical energy at the highest point. (Take $g = 10 \text{ m s}^{-2}$)
2. A force of 15 N acts on a body and displaces it by 4 m at an angle of 60° with the direction of force. Calculate the work done by the force.
3. A car of mass 1000 kg is moving with a speed of 36 km h^{-1} . Find the kinetic energy of the car. If the speed becomes 72 km h^{-1} , by what factor does the kinetic energy increase?
4. A ball of mass 500 g falls freely from a height of 20 m. Calculate:
 - a. the velocity just before hitting the ground
 - b. the kinetic energy just before hitting the ground. ($g = 10 \text{ m s}^{-2}$)
5. A body initially at rest attains a velocity of 20 m s^{-1} in 5 s under a constant force of 10 N. Calculate:
 - a. the acceleration
 - b. the mass of the body
 - c. the work done by the force.

संस्कृतम्

1. अभ्यास पुस्तिका (कापी) में कराया गया कार्य पूरा कीजिए।
2. पुस्तक में व्याकरण में दिए गए अभ्यास कार्य को पूरा कीजिए।
3. पुस्तक में दिए गए अभ्यास प्रश्न पत्र को पूरा कीजिए।
4. सभी पाठों के अनुवाद को ध्यानपूर्वक पढ़िए।
5. वार्षिक पाठ्यक्रम में दिए गए शब्द रूप तथा धातु रूप याद कीजिए।

हिंदी

1. निम्नलिखित प्रश्नों के उत्तर दीजिए:

- पुस्तकालय अपने आप में ज्ञान का संचित कोष होता है। वहाँ अर्थात् पुस्तकों का भंडार होता है- पाठ "मेरा छोटा-सा निजी पुस्तकालय" के आधार पर बताइए कि पुस्तकालय का मानव जीवन में क्या स्थान है?
- कवि ने अग्निपथ शब्द किसके लिए इस्तेमाल किया है कविता 'अग्निपथ' के आधार पर उत्तर दीजिए।
- डॉक्टर बोर्जस ने लेखक को शॉक्स क्यों दिए? उससे लेखक पर क्या प्रभाव पड़ा। पाठ मेरा छोटा-सा निजी पुस्तकालय के आधार पर उत्तर लिखिए।
- गुण संधि के नियमों को उदाहरण सहित स्पष्ट कीजिए।

2. निम्नलिखित विषय पर अनुच्छेद लिखिए।

- नारी शिक्षा का महत्व

संकेत बिंदु- नारी शिक्षा की आवश्यकता, समाज में भूमिका, शिक्षा से परिवर्तन

नोट- पाठ्य पुस्तक स्पर्श के अन्तर्गत कराए गए सभी पाठों को पुनः दोहराएँ।

ARTIFICIAL INTELLIGENCE

Read the questions carefully and circle the letter(s) a, b, c, and d that best answer(s) the question.

(Note: There can be more than one correct choice)

1. Cultivating Data Literacy means:
 - a) Utilize vocabulary and analytical skills
 - b) Acquire, develop, and improve data literacy skills
 - c) Develop skills in statistical methodologies
 - d) Develop skills in Math
2. Data Privacy and Data Security are often used interchangeably but they are different from each other
 - a) True
 - b) False
3. The _____ provides guidance on using data efficiently and with all levels of awareness.
 - a) data security framework
 - b) data literacy framework
 - c) data privacy framework
 - d) data acquisition framework
4. _____ allows us to understand why things are happening in a particular way
 - a) data
 - b) information
 - c) knowledge
 - d) wisdom
5. _____ is the practice of protecting digital information from unauthorized access, corruption, or theft throughout its entire lifecycle.
 - a) data security
 - b) data literacy
 - c) data privacy
 - d) data acquisition
6. What are the basic building blocks of qualitative data?
 - a) Individuals
 - b) Units
 - c) Categories
 - d) Measurements
7. Which among these is not a type of data interpretation?
 - a) Textual
 - b) Tabular
 - c) Graphical
 - d) Raw data
8. Quantitative data is numerical in nature.
 - a) True
 - b) False
9. A Bar Graph is an example of?
 - a) Textual
 - b) Tabular
 - c) Graphical
 - d) None of the above
10. _____ relates to the manipulation of data to produce meaningful insights.
 - a) Data Processing
 - b) Data Interpretation

- c) Data Analysis
- d) Data Presentation

Subjective Type questions

11. Define data literacy. Explain the importance of data literacy in the modern world.
12. Explain the DIKW model with diagram
13. Differentiate Numeric and Textual data
14. Differentiate data privacy and data security
15. Define data privacy. List down the best practices which can help you to ensure data privacy.
16. Define data acquisition. What are the steps for data acquisition?
17. Data Augmentation -adding more data to existing one.
18. Explain any two ethical concerns in data acquisition.
19. Differentiate Data Processing and Data Interpretation.
20. Explain different methods of data collection in qualitative and quantitative data interpretation.

ART

1. Do at least 20 topics of art file work
2. Do Republic Day craft work:

