Girls' High School and College
Class: IX
Holiday Home - Work Assignment
Subject: English Language
Session: 2025 - 2026

1. Write a letter to your friend, describing your favourite hobby.

2. Your school is organizing a campaign for creating awareness about the hazards of throwing household waste in the open and in waterbodies. Write a notice for your school informing the students about the campaign and inviting them to participate in it.

INSTRUCTIONS: THE ENGLISH LANGUAGE HOLIDAY HOME WORK HAS TO BE DONE IN THE LANGUAGE CLASS WORK REGISTER.

Girls' High School and College
Class: IX
Holiday Home - Work Assignment
Subject: English Literature
Session: 2025 - 2026

1. Write the paraphrase of the poem, 'I Remember, I Remember' by Thomas Hood. How does the poet revisit his childhood in the poem and how do these memories affect him? Comment and elaborate on the refrain 'I Remember, I Remember' in the poem.

2. Write the summary of the story, 'The Home - Coming' by Rabindranath Tagore. Draw a comparison between Phatik's life in the village and his aunt's house in Calcutta.

INSTRUCTIONS: THE ENGLISH LITERATURE HOLIDAY HOME WORK HAS TO BE DONE IN THE LITERATURE CLASS WORK REGISTER

Girls' High School & College

Class : IX

Holiday Home Work Project

Subject : Hindi

Session : 2025-2026

हिन्दी परियोजना कार्य (HINDI ASSIGNMENT)

नोट :– अभिभावकों से अपेक्षा की जाती है कि वे यह सुनिश्चित करें कि छात्रा प्रपत्र में दिए गए निर्देशानुसार ही हिन्दी परियोजना कार्य पूर्ण करे।

1. आभार
2. विषय सूची (Index)

   क्रम संख्या / पृष्ठ संख्या / विषय वस्तु / दिनांक / हस्ताक्षर
3. विषय वस्तु

प्रश्न1. बड़े घर की बेटी कहानी का सारांश लिखकर बताइए कि आनंदी के व्यवहार में क्या–क्या परिवर्तन हुआ ?

1) कहानी का उद्देश्य

2) शीर्षक की सार्थकता

3) चरित्र चित्रण (आनंदी, श्रीकंठ, लाल बिहारी)

4) निष्कर्ष

प्रश्न2. महाकुम्भ अमृत महोत्सव पर एक सचित्र रिपोर्ट तैयार कीजिए। जिसकी शब्द सीमा 400 से 450 शब्दों में हो।

1. निष्कर्ष
2. ग्रन्थ सूची

नोट :– 1. अधिन्यास से संबंधित कार्य को पूर्ण करने हेतु छात्रा के लिए विज्ञान की प्रयोगात्मक कॉपी (Loose Paper of Science Practical File) के पेज़ों का उपयोग करना अनिवार्य है।

2. कृपया फ़ाइल पर गुलाबी रंग के चार्ट पेपर का कवर चढ़ा कर उस पर अपना नाम कक्षा / वर्ग एवं रोल नंबर अवश्य लिखें।

END

Girls' High School & College, Prayagraj

CLASS: IX

Holiday Home-Work

Project

Subject: Mathematics

Session: 2025 - 2026

INSTRUCTIONS : Project should be made on inter-leaf sheets.

NOTE : Contents of the project must include the following topics

(a) Acknowledgement

(b) Index

1- TOPIC: Using coloured sheets of paper paste flat cut-outs of cube and cuboid on the left side blank sheet and write the formula of volume and total surface area of both of them on the right ruled sheet.

2- TOPIC: Construct the following using scale and compasses only on the left blank sheet and find all the interior angles of the figures formed on the right ruled sheet.

(i) A regular hexagon with side 4 cm.

(ii) A parallelogram ABCD with AB = 5 cm , BC = 6.5 cm and $\angle B = 60°$.

3- TOPIC: Draw the graph of the equation $3x + 2y = 6$ on a graph sheet

(i) Name the figure formed by the axes and the line.

(ii) Find the area of the figure formed.

(c) Bibliography

THE END

Girls' High School & College, Prayagraj
Class: IX
Holiday Homework
Project
Subject: History/Civics
Session: 2025-2026

1st Page:	TITLE PAGE: THE RENAISSANCE
2nd Page:	Acknowledgement
3rd Page:	Contents
4th &5th Pages:	Introduction- meaning, objectives
6th-8th Pages:	Renaissance- Art
9th - 12th Pages:	Renaissance-Literature
13th-15th Pages:	Renaissance- Science
16th -18th Pages:	Renaissance- Architecture
19th Page:	Conclusion
20th Page:	Bibliography/Webliography

NOTE: Paste coloured pictures on each page related to the topic (Interleaf pages). Headings and sub-headings to be written with black sketch pen, written work with blue or black pen, picture frames and page borders should be drawn neatly with black pen or sketch pen. Each picture is to be labeled properly.
Page limit - 20 pages.
File is to be covered with Brown paper.

_____END_____

Girls' High School and College, Prayagraj
Class: IX
Holiday Home- Work
Project
Subject: Geography
Session: 2025-2026

Topic:
Research a specific natural disaster (Earthquake, Cyclone, Flood) in India, explaining its causes, impact and mitigation (action of reducing the severity) strategies.

(I) Define Natural Calamity
(II) Earthquake (definition)

- Causes
- Impact
- Major earthquakes in India (2 examples)

(III) Cyclone (definition)

- Causes
- Impact
- Major Cyclones in India (2 examples)

(IV) Flood (Definition)

- Causes
- Impact
- Major Floods in India (2 examples)

(V) Steps taken by the Government of India to prepare for and respond to natural disasters:

- Early warning systems
- Disaster response funds
- Community volunteers
- Training

(VI) Conclusion

- National Policy on Disaster Management. (NPDM)

(VII) Bibliography

No. of Pages 20

END

Girls' High School and College, Prayagraj
Class : IX
Holiday Home-Work
(Practical)
Subject : Physics
Session : 2025 - 2026

Instructions:

1. Students have to write all the experiments in Physics Practical Work-Book.
2. Each experiment should start from a new page.
3. Well labelled diagrams to be drawn on the left page only.

EXPERIMENT NO. 1

AIM:- To determine the length of the given wooden block with the help of Vernier Calliper.

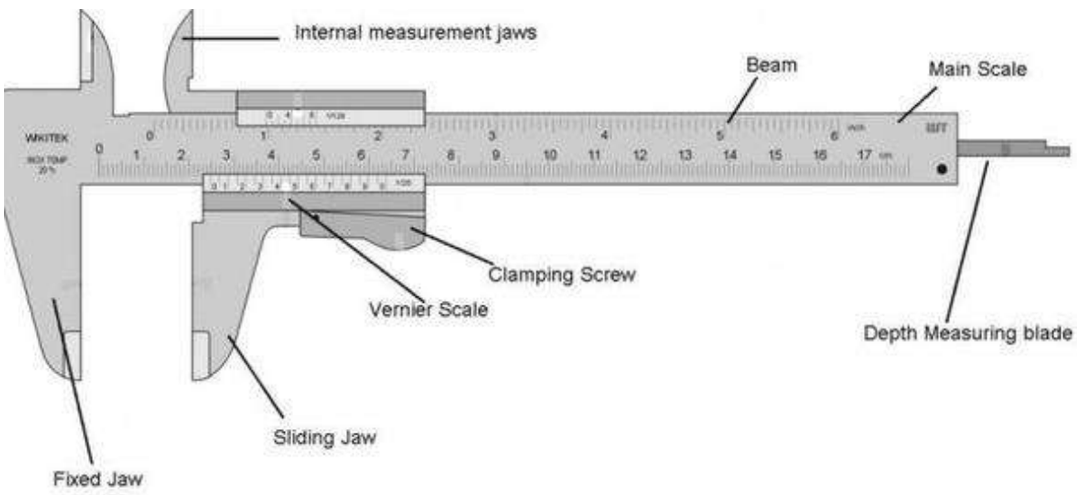
APPARATUS REQUIRED:- Vernier Calliper and wooden block.

PRINCIPLE:- n divisions of Vernier Calliper is equal to (n-1) divisions of Main Scale. The least count of Vernier is equal to the difference between the values of one main scale division and one vernier scale division. It is also called **Vernier Constant**.

$$\textbf{Least Count} = \left(1 - \frac{(n-1)}{n}\right) x = \frac{x}{n}$$

where, x = the value of one small division of main scale

n = no. of divisions on vernier scale



OBSERVATION:-

Total number of divisions on vernier scale (n) =____

Value of one main scale division (x) =_____cm

Least Count = $\frac{x}{n}$ = _____cm

Zero error (with sign) = _____cm

S. No.	Main Scale Reading (in cm)	Vernier Scale Reading (in number)	Vernier Scale Reading × least count (in cm)	Main Scale Reading + (Vernier Scale Reading ×least count) (in cm)
1.				
2.				
3.				
4				
			Mean Reading=	

Correct Reading = Mean Reading – Zero Error(with sign)
=____–____= ___cm

RESULT:- The length of the given wooden block is _____cm.

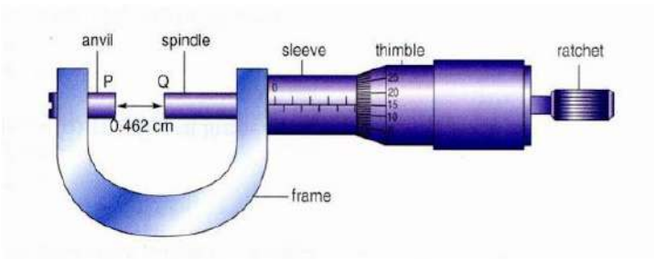
EXPERIMENT NO. 2

AIM:- To determine the diameter of the given common pin with the help of Screw Gauge.

APPARATUS REQUIRED:- Screw Gauge and common pin.

PRINCIPLE:- Screw Gauge works on a principle of screw and nut. On rotating the thimble the screw moves forward through the nut such that "the linear motion is directly proportional to the rotational motion". On giving one complete rotation to the circular scale the screw covers the distance between two successive threads on the screw. This is known as the **pitch** of the screw gauge. The linear distance ,i.e., the pitch is read on the main scale which is marked on the sleeve of screw gauge.

$$\textbf{Least Count} = \frac{\textbf{Pitch}}{\textbf{no.of divisions on circular scale}}$$



OBSERVATION:-

Total number of divisions on Circular Scale (n) =____

Pitch (x) =_____cm

Least Count = $\frac{x}{n}$ = ____cm

Zero error (with sign) = _____cm

S. No.	Main Scale Reading (in cm)	Circular Scale Reading (in number)	Circular Scale Reading × least count (in cm)	Main Scale Reading + (Circular Scale Reading ×least count) (in cm)
1.				
2.				
3.				
4				
			Mean Reading=	

Correct Reading = Mean Reading – Zero Error(with sign)

=____–____= ___cm

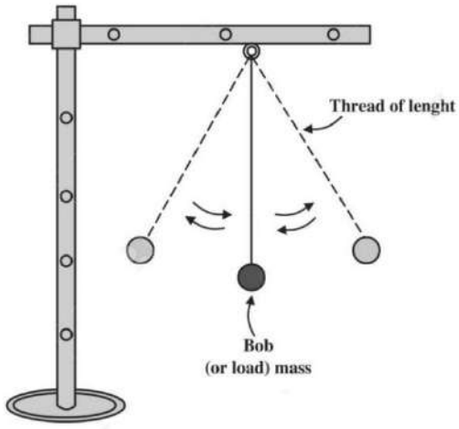
RESULT:- The diameter of the given common pin is _____cm.

EXPERIMENT NO. 3

AIM:- To find the acceleration due to gravity with the help of a simple pendulum.
APPARATUS REQUIRED:- A bob, metallic stand with clamp, thread and stop clock.
THEORY:- The time taken by the pendulum to complete one oscillation is called **time period.**
Relation between the time period (T) and the effective length (l) of the pendulum

$$T=2\pi\sqrt{\frac{l}{g}} \quad \text{or}$$

$$g = \frac{4\pi^2}{l/T^2}$$



OBSERVATIONS:-
Least count of the stop clock = ___sec
Diameter of the bob (d) = ___ cm
Radius of the bob (r) = ___ cm

S. No.	Length of thread L (in cm)	Effective length of thread (L + r) =l (in cm)	Time taken for 20 oscillations t (in sec)	Time period T = t/20 (sec)	l/T^2 (cm/sec^2)
1.					
2.					
3.					
4.					
				Mean Reading (S)=	

The acceleration due to gravity (g) $=4\pi^2 S$

=____cm/sec^2

=____m/sec^2

RESULT :- The acceleration due to gravity = ____m/sec^2

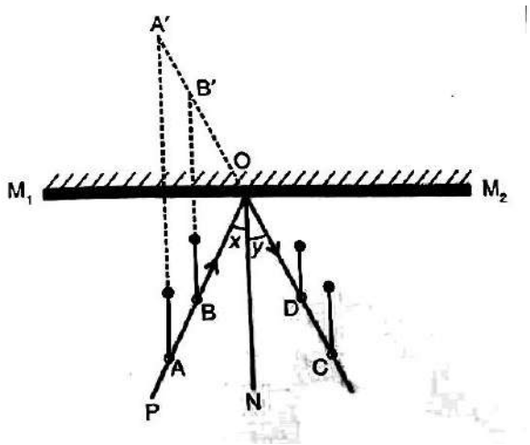
EXPERIMENT NO.4

AIM:- To verify the laws of reflection of light.

APPARATUS REQUIRED:- A drawing board, a plane mirror with a support, a white sheet of paper, drawing pins, common pins, pencil and protractor.

LAWS OF REFLECTION:-

1. The angle of incidence is equal to the angle of reflection.
2. The incident ray, the reflected ray and the normal at the point of incidence, lie in the same plane.



OBSERVATIONS:-

S.No.	Angle of incidence X (degrees)	Angle of reflection Y (degrees)
1.		
4.		
3.		
4.		

RESULT :-

1. The angle of incident is almost equal to the angle of reflection, hence the first law of reflection of light is verified.
2. By inspection the incident ray, reflected ray and normal lie on the same plane at the point of incidence which verifies the second law of reflection of light.

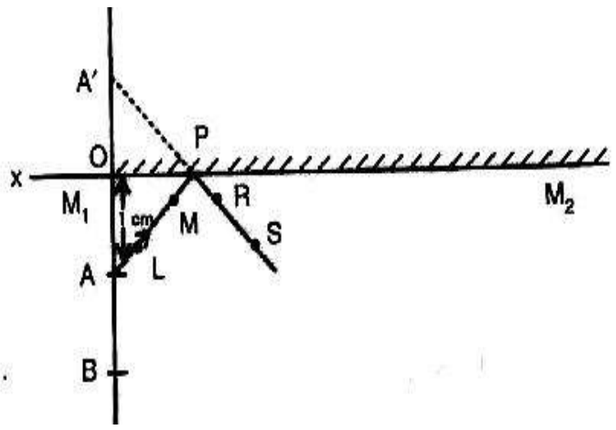
EXPERIMENT NO.5

AIM:- To verify that the image formed is as far behind the mirror as the object is in front of a plane mirror.

APPARATUS REQUIRED:- A drawing board, a plane mirror with a support, a white sheet of paper, drawing pins, common pins, pencil and ruler.

LAWS OF REFLECTION:-

1. The angle of incidence is equal to the angle of reflection.
2. The incident ray, the reflected ray and the normal at the point of incidence, lie in the same plane.



OBSERVATIONS:-

S. No.	Distance of object from mirror X (in cm)	Distance of image from mirror Y (in cm)
1.		
2.		
3.		
4.		

RESULT :- Since distances of the object and image from mirror in all the cases are equal; the image formed is as far behind as the object is in front of the plane mirror.

EXPERIMENT NO. 6

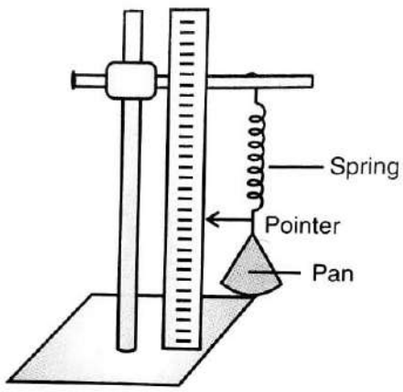
AIM:- To determine the extension in the spring against load.

APPARATUS REQUIRED:- A spring with pan at its end, a half metre scale, a stand with clamp and weight box.

THEORY:-If a spring is stretched, the restoring force (F) applied by the spring to oppose the change in its length is directly proportional to the change in its length (X) i.e.

$$F \alpha -X$$
$$F = -KX$$
$$mg = -KX$$

Thus, if a graph of m is plotted against X, it will be a straight line with slope S = K/g.



OBSERVATIONS:-

Least count of the metre scale =___ cm

S. No.	Weight W in (gf)	Extension x in (cm)
1.		
2.		
3.		
4.		
5.		

Graph of X against W is shown on attached graph sheet.

From the graph-

The value of X is _____cm when W=50 gf.

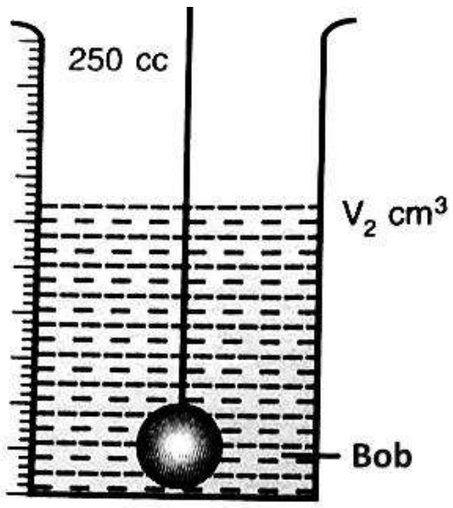
RESULT :- The value of X from the graph =____ cm.

EXPERIMENT NO.7

AIM: - To determine the volume of a metallic bob.

APPARATUS REQUIRED: - A measuring cylinder, a metallic bob, a thin string and water.

THEORY: - When a bob is completely immersed in the liquid then it displaces liquid equal to its own volume. Thus, increased volume of liquid gives the volume of the bob.



OBSERVATIONS:-

S.No.	**Initial reading of the water level in the measuring cylinder V_1 (in ml)**	**Reading of the water level in the measuring cylinder with bob immersed V_2 (in ml)**	**Volume of the bob $V=(V_2-V_1)$ ml**
1.			
2.			
3.			
4.			
		Mean Reading=	

The volume of the bob = _____ ml

The volume of the bob = _____ cm^3

The diameter ‘d’ of the bob = ____cm

The radius ‘r’ of the bob = d/2 =____cm

The volume of the bob = $4/3\pi r^3$ =_____

= _____cm^3

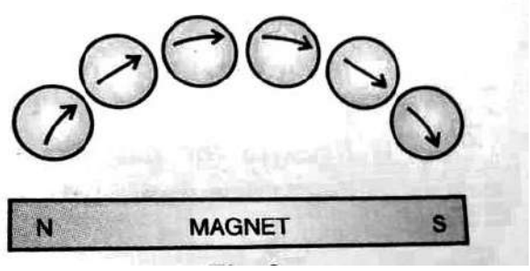
RESULT :- The volume of the given bob is ____ cm^3

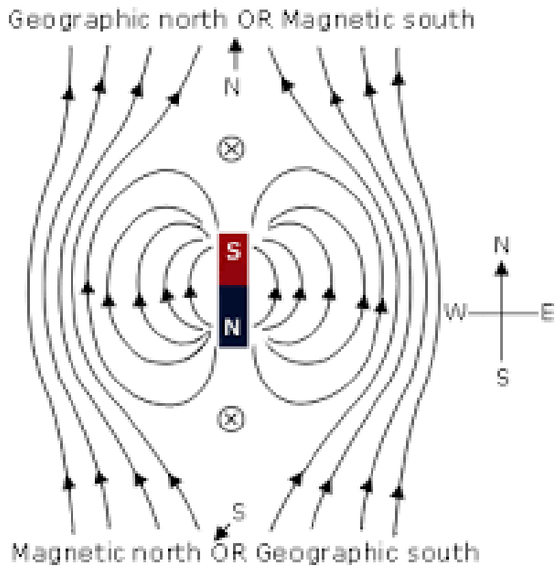
EXPERIMENT NO.8

AIM: - To draw magnetic lines of force of a bar magnet pointing North Pole of a bar magnet towards geographical South.

APPARATUS REQUIRED:- A drawing board, a bar magnet, a white sheet of paper, thumb pins, a compass needle and pencil.

Theory: - A magnetic field line is a continuous and closed curve in the magnetic field such that tangent at any point of it gives the direction of the magnetic field at that point. Outside the magnet, it is directed from North Pole towards South Pole of the magnet.





RESULT: - The magnetic lines of force of the given bar magnet is shown on the white sheet of paper.

END

Girls' High School & College, Prayagraj
Class: IX
Holiday Home-Work
Practical
Subject: Chemistry
Session: 2025-2026

Instructions: Students are advised to write the following chemistry Practicals (Exp. No. 1 to 13) in Chemistry practical file. These experiments are to be written neatly. The same pattern of writing is to be followed as given. Every experiment has to be started from a fresh page.

Experiment No.1

Object:-

To perform dry heating of a given salt. Take a small amount of the salt in a hard glass test tube and heat it. Observe any characteristic changes that take place on heating.

Observations:-

(i) Light green amorphous powder turns to black, on strong heating.
(ii) A colourless, odourless gas is evolved that extinguishes a burning wooden splinter.
(iii) The gas evolved when passed through limewater turns it milky. The milkiness disappears on passing excess of gas.
(iv) The gas evolved has no effect on acidified $K_2Cr_2O_7$ or acidified $KMnO_4$.

Inference:-

(i) The black residue is copper oxide.
(ii) The gas evolved is carbon dioxide.
(iii) Light green powder is copper carbonate ($CuCO_3$).

Experiment No. 2

Object:-

To perform dry heating of a given salt. Take a small amount of the salt in a hard glass test tube and heat it. Observe any characteristic changes that take place on heating.

Observations:-

(i) On strong heating, the light amorphous white solid, changes to pale yellow.
(ii) A colourless, odourless gas is evolved that extinguishes a burning wooden splinter.
(iii) The gas evolved when passed through limewater turns it milky. The milkiness disappears on passing excess of gas.
(iv) The gas evolved has no effect on acidified $K_2Cr_2O_7$ or acidified $KMnO_4$.
(v) The residue, on cooling changes to a white colour i.e. residue is yellow when hot and white when cold.

Inference:-

(i) The residue is zinc oxide.
(ii) The gas evolved is carbon dioxide.
(iii) White powder is zinc carbonate ($ZnCO_3$).

Experiment No. 3

Object:-

To identify the gas evolved when dil.HCℓ is added to Na_2S and the mixture is warmed in a clean dry test tube. Then moist blue litmus paper & also filter paper dipped in lead acetate solution is held into the gas.

Observations:-

(i) A colourless gas is evolved with the smell of rotten eggs.
(ii) Litmus paper turns red.
(iii) Filter paper turns silvery black due to the precipitation of lead sulphide.

Inference:-

(i) Hydrogen sulphide (H_2S) gas is present.
(ii) Hydrogen sulphide (H_2S) gas is acidic in nature.
(iii) Hydrogen sulphide (H_2S) gas is confirmed.

Experiment No. 4

Object:-

To identify the gas evolved when few drops of dil. HCℓ is added to small amount of Na_2SO_3 taken in a clean dry test tube. Then moist blue litmus paper is held into the gas. Also a piece of filter paper soaked in acidified potassium dichromate solution is held into the gas.

Observations:-

(i) Colourless gas is evolved with smell of burning sulphur.
(ii) The litmus paper turns red.
(iii) Filter paper turns from orange to green.

Inference:-

(i) Sulphur dioxide (SO_2) gas is present.
(ii) Sulphur dioxide (SO_2) gas is acidic in nature.
(iii) Sulphur dioxide (SO_2) gas is confirmed.

Experiment No. 5

Object:-

To identify the gas evolved when conc. HNO_3 is added to a few pieces of copper turnings taken in a dry test tube and the mixture is heated. Then moist blue litmus paper is held into the gas. Also a piece of filter paper soaked in KI solution is held into the gas.

Observations:-

(i) Reddish brown gas is evolved with pungent smell.
(ii) The litmus paper turns red.
(iii) The filter paper turns brown.

Inference:-

(i) Nitrogen dioxide (NO_2) gas is present.
(ii) Nitrogen dioxide (NO_2) gas is acidic in nature.
(iii) Nitrogen dioxide (NO_2) gas is confirmed.

Experiment No. 6

Object:-

To identify the given cation by flame test.

Procedure:-

A thin platinum wire is first thoroughly cleaned by dipping it in concentrated hydrochloric acid. It is then heated in the non-luminous part of the flame of the burner. The process is repeated, when the wire imparts no colour to the flame, it is ready for use.

Now, the wire is first dipped in concentrated hydrochloric acid and then into a small amount of the substance being investigated, so that a little of the substance may stick to it. It is then introduced into the non-luminous part of the flame and the colour imparted to the flame is observed.

Observation:-

Golden yellow flame is seen.

Inference:-

Sodium ion (Na^+) is present.

Experiment No. 7

Object:-

To identify the given cation by flame test**.**

Procedure:-

A thin platinum wire is first thoroughly cleaned by dipping it in concentrated hydrochloric acid. It is then heated in the non-luminous part of the flame of the burner. The process is repeated, when the wire imparts no colour to the flame, it is ready for use.

Now, the wire is first dipped in concentrated hydrochloric acid and then into a small amount of the substance being investigated, so that a little of the substance may stick to it. It is then introduced into the non-luminous part of the flame and the colour imparted to the flame is observed.

Observation:-

Lilac (violet) flame is seen.

Inference:-

Potassium ion (K^+) is present.

Experiment No. 8

Object:-

To identify the given cation by flame test.

Procedure:-

A thin platinum wire is first thoroughly cleaned by dipping it in concentrated hydrochloric acid. It is then heated in the non-luminous part of the flame of the burner. The process is repeated, when the wire imparts no colour to the flame, it is ready for use.

Now, the wire is first dipped in concentrated hydrochloric acid and then into a small amount of the substance being investigated, so that a little of the substance may stick to it. It is then introduced into the non-luminous part of the flame and the colour imparted to the flame is observed.

Observation:-

Brick red flame is seen.

Inference:-

Calcium ion (Ca^{2+}) is present.

Experiment No. 9

Object:-

To identify the gas evolved when NaOH solution is added to a small amount of $NH_4C\ell$ taken in a clean dry test tube and the mixture is heated, then moist red litmus paper is held into the gas. Also, a glass rod dipped in conc. $HC\ell$ is held into the gas.

Observations:-

(i) A colourless gas is evolved with pungent smell.
(ii) The litmus paper turns blue.
(iii) Dense white fumes of $NH_4C\ell$ are evolved.

Inference:-

(i) Ammonia (NH_3) gas is present.
(ii) Ammonia (NH_3) gas is basic in nature.
(iii) Ammonia (NH_3) gas is confirmed.

Experiment No.10

Object:-

To identify the gas evolved when conc. $HC\ell$ is added to MnO_2 and the mixture is heated in a clean dry test tube. Then moist blue litmus paper is held into the gas. Also, a starch iodide paper is held into the gas.

Observations:-

(i) A greenish yellow gas is evolved with pungent odour.
(ii) The litmus paper turns red, and then gets bleached.
(iii) The starch iodide paper turns blue black.

Inference:-

(i) Chlorine ($C\ell_2$) gas is present.
(ii) Chlorine ($C\ell_2$) gas is acidic in nature and also a bleaching agent.
(iii) Chlorine ($C\ell_2$) gas is confirmed.

Experiment No. 11

Object:-

To identify the presence of water vapour in a given compound. Few crystals of copper sulphate are heated in a clean dry hard glass test tube. The blue or red litmus paper is held into the gas. Also, blue cobalt chloride paper is held into the gas.

Observations:-

(i) A colourless, odourless gas is evolved which condenses on the cooler parts of the test tube and white residue is left behind.

(ii) No effect on either litmus paper.

(iii) Cobalt chloride paper turns pink.

Inference:-

(i) Colourless gas is water vapour. Colourless liquid is water. Residue is of anhydrous copper sulphate.

(ii) Water vapours are present.

(iii) Water vapours are confirmed.

Experiment No. 12

Object:-

To identify the gas evolved when few drops of dil. HCℓ is added to Zn pieces taken in a clean test tube and the mixture is slightly warmed. Then a glowing splinter is held into the gas.

Observations:-

(i) A colourless, odourless gas is evolved.

(ii) Gas mixed with air burns with a pop sound when the glowing splinter is brought near it.

Inference:-

(i) Hydrogen gas is present.

(ii) Hydrogen gas is confirmed.

Experiment No.13

Object:-

To identify the gas evolved when a small amount of the mixture of $KC\ell O_3$ and MnO_2 is heated in a clean dry hard glass test tube. Then a glowing splinter is held into the gas.

Observations:-

(i) A colourless, odourless gas is evolved.

(ii) A glowing splinter rekindles.

Inference:-

(i) Oxygen gas is present.

(ii) Oxygen gas is confirmed.

END

Girls' High School & College, Prayagraj

Class: IX

Holiday Home-Work

Subject: Biology Practical

Session: 2025-26

Instructions- All experiments are to be neatly written with a blue ink pen only. However, the students can use a black ink pen for headings. The diagrams related to the experiments should be neat, well labelled and drawn on the plain side. Diagrams should be labelled only with a pencil. Each experiment should start from a fresh page. No colours are to be used either for written work or for diagrams.

EXPERIMENT NO 1

OBJECT- To observe plant cells in an onion peel.
MATERIALS REQUIRED- Glass slide, watch glass, coverslip, safranine, onion bulb, microscope
METHOD - Cut an onion into four equal halves. Carefully peel off the inner membrane covering the fleshy leaf. Take a small piece of this membrane and place it in a watch glass containing water. Transfer this peel onto a glass slide. Add a drop of safranine and place a coverslip over it. Observe under a microscope.
OBSERVATION- Brick-shaped cells are seen lying side by side. Each cell has a darkly stained nucleus and cell wall, a centrally placed vacuole, and a thin layer of cytoplasm between the cell wall and vacuole.

CONCLUSION- This is a plant cell because of the presence of a cell wall and a large vacuole.

EXPERIMENT NO. 2

OBJECT- To study animal cells from human cheek cells.
MATERIALS REQUIRED- Microscope, Glass slide, coverslip, toothpick, methylene blue.
METHOD - Rinse your mouth. Gently scrape the inside of the cheek. Place the scraping material on a clean slide. Spread it and add a drop of methylene blue. Place a coverslip on it. Observe under a microscope.
OBSERVATION- A large numbers of cells are seen. Each cheek cell is polygonal in shape. It has a darkly stained nucleus in the centre and a thin plasma membrane surrounding the cytoplasm.

Conclusion- This is an animal cell because the cells are polygonal in shape and cell wall is absent.

EXPERIMENT NO.3

OBJECT- To observe the structure of a flower. (China Rose)
OBSERVATION-
Stem- Woody, aerial, erect, green.
Inflorescence- Solitary, axillary
Flower - Pedicellate, ebracteate hermaphrodite, actinomorphic, pentamerous, epicalyx present
Epicalyx - 6 to 8 in number, free, green

Calyx - 5 sepals, gamosepalous, green, persistent
Corolla- 5 petals, polypetalous, large, red in colour
Androecium- stamens indefinite, Monadelphous, epipetalous, anthers dorsifixed
Gynoecium- pentacarpellary, syncarpous, pentalocular, axile placentation,5 knob like stigma.

EXPERIMENT NO.4

OBJECT- To observe the structure of a dicot seed (bean seed).
MATERIALS REQUIRED - watch glass, bean seed

OBSERVATION - Bean seed is kidney shaped and is covered by a hard seed coat. Seed coat consists of two layers.

(1) Testa - outer hard brownish covering.

(2) Tegmen - inner thin covering.

A whitish scar known as Hilum is present on the concave side of the seed. Close to the Hilum is present a minute pore called micropyle.
Below the seed coat are two fleshy cotyledons. A tiny embryo is seen attached to the cotyledons. The embryo consists of two parts

Radicle- gives rise to the root system.

Plumule- gives rise to the shoot system.

Conclusion- It is a dicot seed because two cotyledons are present.

EXPERIMENT NO. 5

OBJECT - To observe a monocot seed (maize grain)
MATERIALS REQUIRED- watch glass, maize seed.
OBSERVATION - The maize grain is small, one- seeded and yellowish in colour. The pericarp is fused with the seed coat. The major portion of grain is occupied by starchy endosperm whereas a small embryo is situated on one side of the base. The endosperm has outermost aleurone layer which is proteinaceous. The embryo consists of one large shield shaped cotyledon, plumule and radicle. Cotyledon is also called scutellum.
The sheath covering the plumule is called coleoptile and the sheath covering the radicle is called coleorhiza.
Conclusion- It is a monocot seed because only one cotyledon is present.

END

GIRLS' HIGH SCHOOL & COLLEGE, PRAYAGRAJ
CLASS: 9 E, F, G
HOLIDAY HOME – WORK ASSIGNMENT
SUBJECT: COMPUTER APPLICATIONS
SESSION: 2025-2026

INSTRUCTIONS:

Students are expected to write each program along with questions from the new page in the computer project interleaf assignment file.

1. Fill Index (Index page is already in Project file).

2. First page- Computer Assignment (Heading at center of the page.)

3. Second page- Write Acknowledgement.

4. Third page- Write first program from given list of the programs along with output.

5. Write a program on a ruled page and output on the opposite blank page.

6. Cover your computer assignment with brown paper.

7. Write with blue & black gel pen only .Write the following programs along with output.

REFERENCE BOOK: LOGIX-CLASS 9 (Kips Publications)

PROGRAMS

1. Write a program to print the perimeter and area of a square.

2. Write a program to calculate the circumference of a circle for a given value of radius.

3. Write a program that uses initialization to calculate the area and perimeter of a rectangle.

4. Write a program that uses parameters as the form of input to convert minutes into hours.

5. Write a program to display the current date and time using the Date class of the java.util package.

6. Write a program in java to input three integers and compute their average.

7. Write a program using the next() method of the Scanner class, to read a token from the user input.

8. Write a program in java to input two numbers using the Scanner class. Also, swap these two numbers without using a third variable.

9. Write a program in java, using the Scanner methods, to read and display the following details:

Name: as a String data type

Roll Number: as an integer data type

Marks Percentage: as a float data type

10. Write a program in java to read the input as a single line “Abc 19.45 17 Rohit G”(delimited by one or more spaces)via the Scanner class and display the individual values(tokens).

11. Write a program which uses the Pythagorean Theorem to find the hypotenuse of a right – angled triangle.

12. Write a program which accepts radius from the user to calculate the diameter, circumference, and area of a circle. Use the ceil method to display values.

13. Write a program in Java to determine if a number is divisible by another number using an if statement.

14. Write a program in Java to take a number from the user and display the corresponding day of the week.

15. ABC Computers is a seller of personal computers. The staff works on a commission basis. At the end of each month, each salesperson's commission is calculated according to the table listed below. The staff is also paid an advance amount Rs. 1500 each month. When the sales commission is calculated, the advance amount is subtracted from the commission. If any salesperson's commission is less than the amount, he or must pay back the difference.

Write a program in Java to compute the commission at the end of each month.

Total Sales(current month)	**Commission Rate**
Less than Rs. 10,000	5%
Rs. 10,000 – Rs. 14,999	10%
Rs. 15,000 – Rs. 19,999	15%
Rs. 20,000 – Rs. 24,999	18%
Rs. 25,000 or more	20%

16. Write a program to check whether a number is a perfect number or not using a do-while loop.[A number is said to be perfect if sum of all its factors (excluding the number itself) is equal to the number.]

17. Write a program to check whether a number is a Niven number or not.
(Any positive integer which is divisible by the sum of its digits is a Niven number.)

18. Write a program to display the following pattern. The program should accept number of rows to be printed using the Scanner class.

```
1
2 3
4 5 6
7 8 9 10
```

19. Write a program to display the following pattern.

```
* * * * *
 * * * *
  * * *
   * *
    *
   * *
  * * *
 * * * *
* * * * *
```

20. Write a program to display the following pattern.

C
C O
C O M
C O M P
C O M P U
C O M P U T
C O M P U T E
C O M P U T E R

THE END

Girls' High School & College, Prayagraj
Class: IX B
Holiday Home-Work
Project
Subject: Commercial Applications
Session: 2025-2026

INSTRUCTIONS:

1. There will be four separate assignments (Project) as per the topics given. Keep all four assignments in one file. Cover the file with pink chart paper. Write Commercial Applications Project 2025-26 in the middle, Roll No. at the top right corner and Name, Class, Section, Admission no. should be written at the bottom right corner.

2. **Acknowledgement**
   Order of each Assignment:
   - Name of the topic (one page)
   - **Index** (only serial no., content and page no. It should be of one page.)
   - Subject Matter of the topic-Describe the topic with introduction, relevant headings and sub headings, supported with pictures/diagrams/graphs/tables, as per the requirement. (4 to 6 pages)
   - **Conclusion** (one page)
   - **Bibliography** (One page- Write the name of related websites and books consulted for making of the assignment.)
   - Note: Same order will be followed for each topic.
3. Each assignment should be made within 8 to 10 pages including all the points mentioned above.
4. Relevant pictures should be pasted neatly and must be bordered in black along with proper labelling/heading.

Topics for the Assignment (Project):

1. Study the working of Fast Moving Consumer Goods (FMCG) Industry in India- Take any two firms of the industry and describe their objectives.
2. Study the impact of poor communication in today's organizations and how to solve it.
3. Study the profile of any partnership firm. Write a brief report stating the nature and working of the firm.
4. Critically evaluate the ways (Verbal and Non Verbal) of business communication in a Commercial Organisation. Write the factors which influence the choice of communication methods.

END

GIRLS' HIGH SCHOOL & COLLEGE, PRAYAGRAJ

CLASS: 9 A,C

HOLIDAY HOME – WORK

ASSIGNMENT

SUBJECT: ART

SESSION: 2025-2026

Paper III – Original Imaginative Composition in Colour –

Draw and paint:

1. Any festival
2. Picnic Scene

Paper IV – Applied Art –

Draw and paint:

1. Teachers Day Card
2. Story Book Cover
   Size : 20 x 24 cms

END

Girls' High School & College, Prayagraj
Class IX C, D
Holiday Home-Work
Assignment
Subject: Robotics & Artificial Intelligence
Session: 2025-2026

INSTRUCTIONS:

Students are expected to read and understand the questions and write each topic along with question from new page .Use punched pages and compile them into a file. Paste or draw the relevant pictures.

- Index
- Acknowledgement
- Introduction

Robotics

Q1. Robots are becoming smarter day by day. Identify five unique smart robots and write about them with the help of pictures.

Q2. Robots are designed to help humankind in a variety of fields. Write their application in different fields.

Q3. The evolution of Robotics from past to future:

- Write how robots have developed over time
- Write about early robots, modern AI-powered robots, and future possibilities.

Artificial Intelligence

Q4. AI is a powerful tool, however, depending on how it is used, it can be a blessing or curse. Discuss with examples**.**

Q5. Understanding Artificial Intelligence its basics and applications:

- Explore what AI is and how it works?
- Write real world applications in healthcare, education, business and daily life.

Q6. AI vs human intelligence: can AI ever replace human?

- A comparative study of human creativity vs AI generated content.
- Future predictions and ethical concerns.

- Conclusion
- Bibliography

THE END