

GIRLS' HIGH SCHOOL AND COLLEGE, PRAYAGRAJ
HOLIDAY HOME WORK
SESSION: 2026-27
Class IX
SUBJECT: ENGLISH LANGUAGE

INSTRUCTIONS:

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

NOTICE WRITING:

Q1. Your school is organizing an inter- school fashion show reusing old clothes. Write a notice informing the students about the event and ask them to register their names for the fashion show.

Email WRITING:

Q2. Write an email to a leading fashion designer requesting him/her to be the judge at the fashion show, giving all the necessary details.

END

GIRLS' HIGH SCHOOL AND COLLEGE, PRAYAGRAJ
HOLIDAY HOME WORK
SESSION: 2026-27
Class IX
ENGLISH LITERATURE ASSIGNMENT

INSTRUCTIONS:

THE ENGLISH LITERATURE ASSIGNMENT HAS TO BE DONE IN LITERATURE CLASS WORK REGISTER. THE WORD LIMIT FOR EACH ASSIGNMENT IS 750 WORDS.

ASSIGNMENT 1:

- Q1. Write the paraphrase of W.H. Auden's poem 'The Night Mail'. Identify and explain the literary devices used in the poem.

ASSIGNMENT 2

- Q2. Write the summary of Satyajit Ray's short story 'Bonku Babu's Friend'. Do you think meeting with Ang changed Bonku Babu's thinking? What lesson can be learnt from Ang's advice to Bonku Babu?

END

Girls' High School & College, Prayagraj

Session 2026-2027

Class - IX

Subject- Hindi

हिन्दी परियोजना कार्य (Hindi Assignment)

नोट- अभिभावकों से अपेक्षा की जाती है कि वह 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

प्रश्न 1. ग्लोबल वार्मिंग से होने वाले ऋतु परिवर्तन के विषय में विस्तृत जानकारी दीजिए साथ ही यह बताइए कि इससे वायुमंडल पर क्या प्रभाव पड़ता है। अपने विचार 400 से 450 शब्दों में व्यक्त कीजिए।

(i) ग्लोबल वार्मिंग की परिभाषा और महत्व (ii) कारण (iii) प्रभाव

(iv) समाधान- व्यक्तिगत प्रयास और सरकारी नीतियाँ। (v) निष्कर्ष

प्रश्न 2. अपना-अपना भाग्य कहानी का सचित्र सारांश लिखिए। पहाड़ी लड़के का चरित्र चित्रण कीजिए। पहाड़ी लड़के तथा वकील साहब के आर्थिक स्थिति का तुलनात्मक विश्लेषण कीजिए। इस कहानी से आपको क्या शिक्षा मिलती है?

4. संदर्भित ग्रंथ

नोट - 1. अधिन्यास से संबंधित कार्य को पूर्ण करने हेतु छात्रा के लिए विज्ञान की प्रयोगात्मक कॉपी (Loose paper of science practical file) के पेजों का उपयोग करना अनिवार्य है।

2. कृपया फ़ाइल पर गुलाबी रंग के चार्ट पेपर का कवर चढ़ाकर 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: 2026 - 2027

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: Mensuration

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: Simple Interest vs Compound Interest

(i) Write formulae of both and compare them.

(ii) Explain the differences using two examples. Draw a table for Principal and Amount received of the two examples on the blank side.

3- TOPIC: Statistics

Collect data from 10 people of their screen time in hours. Make

(i) Tally marks on blank side.

(ii) Find mean, median and mode of the above data on the ruled side.

(c) Bibliography

THE END

Girls' High School & College, Prayagraj
Class: IX
Holiday Homework
Project
Subject: History/Civics
Session: 2026-2027

1 st Page:	Title Page- Marvels of India: Exploring Iconic Monuments
2 nd Page:	Acknowledgement
3 rd Page:	Table of Contents
4 th -5 th Pages:	Introduction
6 th -7 th Pages:	Buddhist Caves, Ajanta
8 th -9 th Pages:	Iron Pillar, Mehrauli
10 th -11 th Pages:	Gol Gumbaz, Bijapur
12 th -13 th Pages:	Mattancherry Synagogue, Cochin
14 th -15 th Pages:	Brihadeshwara Temple, Thanjavur
16 th -17 th Pages:	Dilwara Temple, Mount Abu
18 th Page:	Conclusion
19 th Page:	Bibliography/Webliography
20 th Page:	Picture Gallery

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: 2026-2027

Topic: Rubber Plantation in Malaysia-Equatorial Region

- a) Acknowledgement
- b) Index
- c) Introduction
- d) Characteristic features of plantation agriculture
- e) Conditions favorable for rubber cultivation
- f) Method of cultivation, bud grafting
- g) Rubber tapping
- h) Processing of rubber
- i) Rubber plantations in Malaysia, rubber holdings, large to small.
- j) The role of Rubber Plantations in Malaysia's economy.
- k) Conclusion
- l) Bibliography

Note:

- Number of pages 20
- File to be covered with brown paper
- Paste colored pictures on each blank page related to the topic, outline the picture and label properly.
- Headings and subheadings to be written with black pen and written work with blue pen.

End

Girls' High School and College, Prayagraj

Class : IX

Holiday Home-Work

(Practical)

Subject : Physics

Session : 2026 - 2027

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

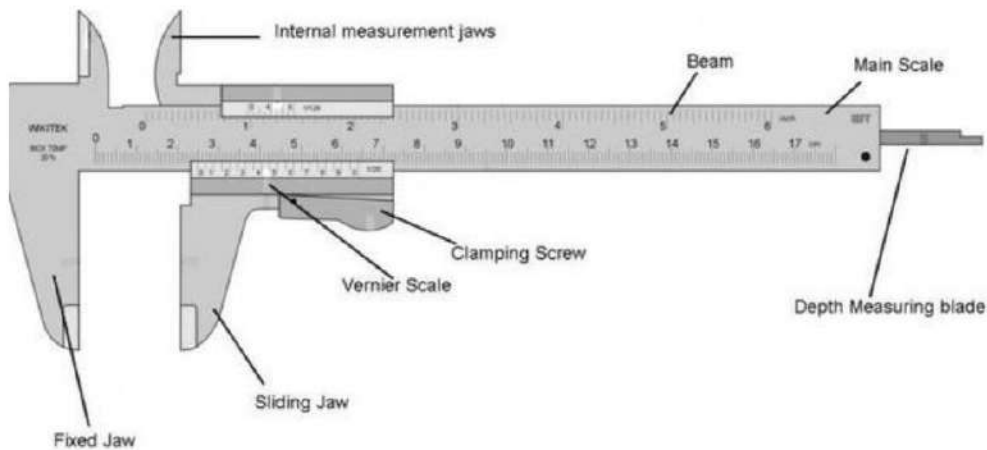
AIM:- To determine the length of the given wooden block with the help of Vernier Calliper.

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**.

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

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=				

$$\text{Correct Reading} = \text{Mean Reading} - \text{Zero Error (with sign)}$$

$$= \underline{\quad} - \underline{\quad} = \underline{\quad} \text{ cm}$$

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

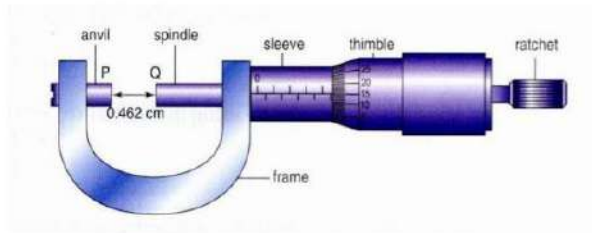
EXPERIMENT NO. 2

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.

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



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=				

$$\begin{aligned} \text{Correct Reading} &= \text{Mean Reading} - \text{Zero Error (with sign)} \\ &= \underline{\quad} - \underline{\quad} = \underline{\quad} \text{ cm} \end{aligned}$$

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.

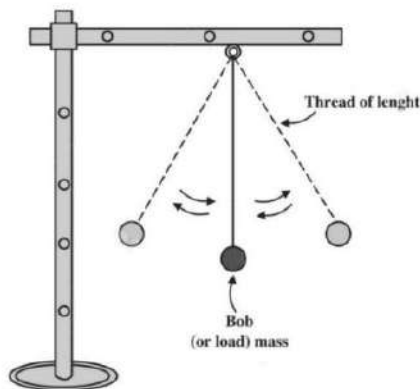
APPARATUS REQUIRED:- A bob, metallic stand with clamp, thread and stop clock.

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

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

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



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) = $4\pi^2 S$

$$= \text{___ cm/sec}^2$$

$$= \text{___ m/sec}^2$$

RESULT :- The acceleration due to gravity = ___ m/sec²

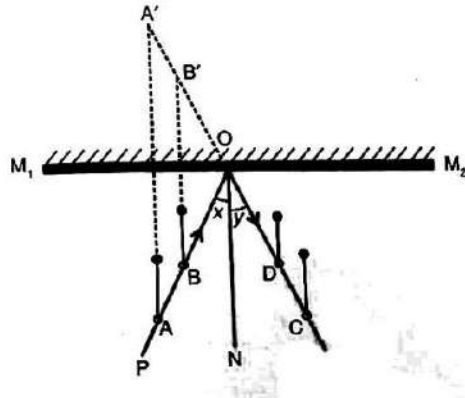
EXPERIMENT NO.4

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.

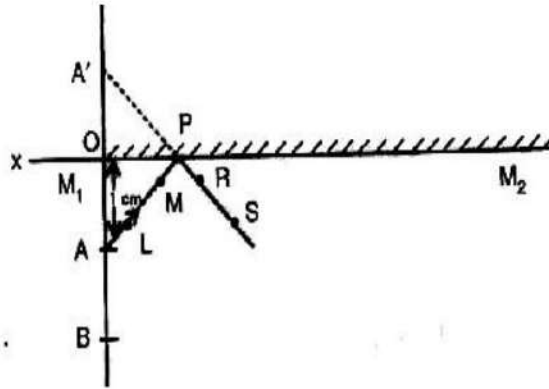
EXPERIMENT NO.5

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.

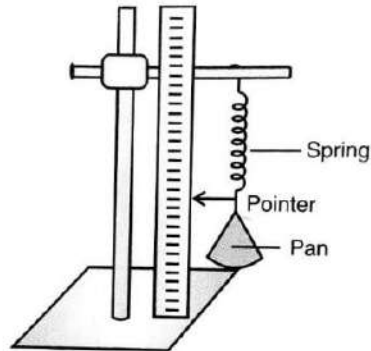
THEORY:- If a spring is stretched, the restoring force (F) applied by the spring to oppose the change in its length is directly proportional to the change in its length (X) i.e.

$$F \propto -X$$

$$F = -KX$$

$$mg = -KX$$

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.

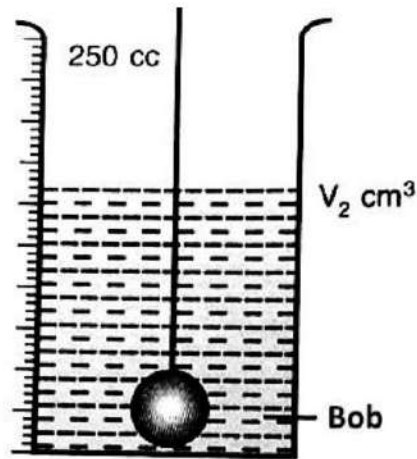
RESULT :- The value of X from the graph = ___ cm.

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 = _____ cm³

The diameter 'd' of the bob = _____ cm

The radius 'r' of the bob = $d/2$ = _____ cm

The volume of the bob = $4/3\pi r^3$ = _____
= _____ cm³

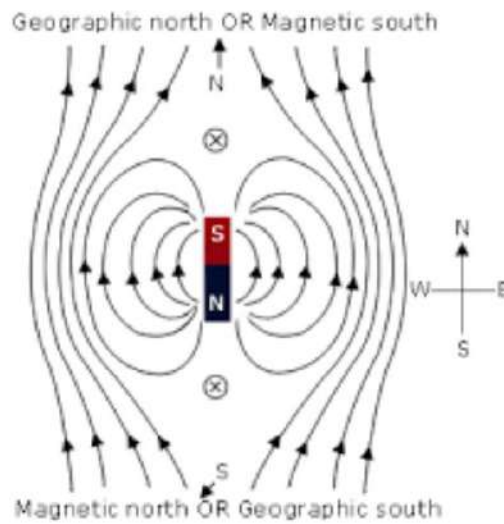
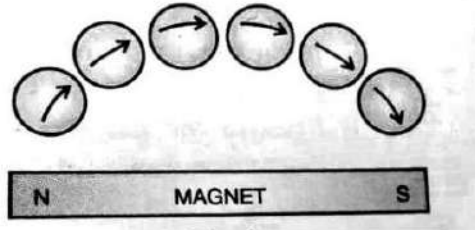
RESULT :- The volume of the given bob is _____ cm³

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

HOLIDAY HOMEWORK

SESSION: 2026-2027

CLASS: IX

SUBJECT: CHEMISTRY

Instructions: Students are advised to write the following chemistry practicals (Exp. No. 1 to 15) 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 Na₂S 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 (H₂S) gas is present.
- (ii) Hydrogen sulphide (H₂S) gas is acidic in nature.
- (iii) Hydrogen sulphide (H₂S) gas is confirmed.

Experiment No. 4

Object:-

To identify the gas evolved when few drops of dil. HCl is added to small amount of Na₂SO₃ 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 (SO₂) gas is present.
- (ii) Sulphur dioxide (SO₂) gas is acidic in nature.
- (iii) Sulphur dioxide (SO₂) gas is confirmed.

Experiment No. 5

Object:-

To identify the gas evolved when conc. HNO₃ 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 (NO₂) gas is present.
- (ii) Nitrogen dioxide (NO₂) gas is acidic in nature.
- (iii) Nitrogen dioxide (NO₂) 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_4Cl 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. HCl 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_4Cl 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. HCl 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 (Cl_2) gas is present.
- (ii) Chlorine (Cl_2) gas is acidic in nature and also a bleaching agent.
- (iii) Chlorine (Cl_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 KClO_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.

Experiment No.14

Object:-

To perform the reaction of silver nitrate solution with sodium chloride solution.

Procedure:-

Silver nitrate solution is added to sodium chloride solution.

Observation:-

A white precipitate of silver chloride is formed which is soluble in excess of ammonium hydroxide.

Inference:-

The white precipitate formed is of silver chloride.

Experiment No.15

Object:-

To perform the reaction of sodium sulphate solution with barium chloride solution.

Procedure:-

Barium chloride solution is added to sodium sulphate solution.

Observation:-

A white precipitate is formed which is insoluble in mineral acid.

Inference:-

The white precipitate formed is of barium sulphate.

END

Girls' High School & College, Prayagraj

Class: IX

Holiday Home-Work

Subject: Biology Practical

Session: 2026-27

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 AND COLLEGE, PRAYAGRAJ
SESSION :2026 – 2027
CLASS : IX G
SUBJECT : COMPUTER APLICATIONS
HOLIDAY HOMEWORK

REFERENCE BOOK : CODEBLOX Class 9 (KIPS Publications)

1. ASSIGNMENT

Instructions :- Students are expected to write each program along with question from a new page in the computer assignment interleaf file .

- Index
- First page :- Computer Assignment [Heading at center of the page.]
- Second page :- Acknowledgement
- Third page :- Start writing program along with output.
- Write a program on a ruled page and output on the opposite blank page.
- Cover your computer assignment file with white sheet of paper.
- Write with blue and black gel pen only.

PROGRAMS

1. Write a program in Java to input three integers and compute their average.
2. Write a program in Java to input two numbers using the Scanner class . Also, swap these two numbers without using a third variable.
3. Write a program to accept a number and check if it is a triple–digit number or not.
4. Write a program to accept the length , width and height of a pyramid and compute its volume.
5. Write a program using Scanner methods to read radius and height of a cylinder and calculate its volume.
6. Write a program to input three numbers and find the minimum and maximum number using Math.min and Math.max methods.
7. Write a program to find the midpoint of two numbers using Math.min(a,b), Math.max(a,b),and Math.abs(a) methods.
8. Using an if statement, write a program in Java to determine if a number is divisible by another number.
9. Write a program in Java to input a student's name , class ,roll number and marks in five subjects. Compute the total marks, percentage, and grade as per the following table:

Percentage	Grade
Greater than or equal to 90	A
Greater than or equal to 70 but less than 90	B
Greater than or equal to 50 but less than 70	C
Greater than or equal to 40 but less than 50	D
Less than 40	E

10. Write a program in Java to determine if an entered alphabet is a vowel or consonant.
11. Write a program in Java to take a month number from user and display the corresponding season of the month using switch statement.
12. Write a program in Java to compute and display the factorial of a number. Read the number via the Scanner class.
13. Write a program in Java to read a number n via the Scanner class and print the following series without using the String data type.
1
11
111
1111
11111..... n terms.
14. Write a program in Java to check whether a number is a perfect number or not using a do-while loop.
15. Write a program in Java to display the following menu:
Pattern Menu
 1. Triangle
 2. Inverted Triangle
 3. Exit
 4. Enter your choiceLet the user select an option. For option 1 and 2, accept the number of rows to be printed using the Scanner class.

2. PROJECT

Instructions:-Students are expected to read and understand the topics from the book and write in thin interleaf notebook..

- Index
- Introduction
- Topic 1 : Data protection on the Internet
- Topic 2 : Intellectual Property Rights
- Conclusion
- Note:- (you can paste relevant pictures where necessary.)

END

Girls' High School & College, Prayagraj
Class: IX B & C
Holiday Home-Work
Project
Subject: Commercial Applications
Session: 2026-2027

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 2026-27 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. (5 to 8 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 5 to 8 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 growth of the Consumer Durables Industry in India. Take any two firms of the industry and group them according to ownership structures.
2. Study the challenges and growths of Sole Proprietorship.
3. A comparative study of written and oral communication in companies. Why do we still need records to stay responsible?
4. Critically evaluate the benefits and drawbacks of shifting from in person meetings to video conferencing in a post- pandemic environment.

END

GIRLS' HIGH SCHOOL & COLLEGE, PRAYAGRAJ

CLASS: 9 A,F

HOLIDAY HOME – WORK

ASSIGNMENT

SUBJECT: ART

SESSION: 2026-2027

Paper III – Original Imaginative Composition in Colour –

Draw and paint:

1. Any Zoo Scene
2. Picnic Scene

Paper IV – Applied Art –

Draw and paint:

1. Educate Girl Child (Poster)
2. Story Book Cover

Size : 20 x 24 cms

END

GIRLS' HIGH SCHOOL & COLLEGE , PRAYAGRAJ
Class IX C,D,E
HOLIDAY HOME-WORK
ASSIGNMENT
SUBJECT: ROBOTICS AND ARTIFICIAL INTELLIGENCE
SESSION: 2026-2027

REFERENCE BOOK : ROBOTICS AND ARTIFICIAL INTELLIGENCE CLASS 9 (KIPS Publications)

INSTRUCTIONS:

- The project is to be written with blue pen and the heading with black pen.
- The project is to be preceded with acknowledgement and index.
- Format of the index is :

S.No.	Program	Remark

Robotics

I. Attempt any three questions.

1. Robots are becoming smarter day by day. Identify 5 unique smart robots and it should include:
 - Name of the robot
 - Who made it
 - What it can do (features)
 - Where it is used
2. Write a short paragraph (100–150 words) on the topic: **“All robots are machines, but all machines are not robots.”** In your answer:
 - Explain what a machine is
 - Explain what a robot is
 - Give at least one example to support your explanation
3. Create a **mind map** on the topic **“Robots and Robotic Systems”**. Your mind map should include:
 - Features of robots
 - Applications (where robots are used)
 - Types (classification) of robots
 You may follow the **Tony Buzan Mind Map style** (use colors, branches, and diagrams).
4. Programming using a microcontroller (such as Arduino). Perform simple experiments like:
 - Blinking an LED
 - Reading sensor input
 - Controlling a motor

Write a short explanation of: a. What did you do? b. How the program works?

Artificial Intelligence

II. Attempt all the questions.

1. AI is a powerful tool; however, depending on how it is used, it can be a blessing or a curse. Elaborate with examples.
2. Design a **“Smart School” system using AI**. Create a chart showing:
 - Different features of a smart school (e.g., automated attendance, homework, fees, library)
 - Components required (data, AI system, devices)
 - Steps involved in building the system
 - a. Problem Identification
 - b. Data Collection
 - c. Model Building
 - d. Testing
 - e. Implementation

Python Programming

- Students are expected to execute the programs mentioned below on the computer on Python IDLE.
- Take the printout of the program and the output. Paste on the interleaf side.
- No bibliography is required.
- Make a variable description on the ruled side. Format of Variable Description:

Name of the variable	Data type	Purpose/ Description

III. Attempt any 10 questions. Question 11 is compulsory

1. Write a program to check if the length of the password is greater than or equal to 6 then print "Valid" otherwise print "Invalid".
2. Write a program that takes the **price of an item** and the **quantity purchased** as input from the user. The program should calculate the **total bill amount**. If the total bill is **greater than 1000**, then apply a **10% discount** on the total amount and display the final bill. Otherwise, display the total bill without any discount.
3. Explain the different types of errors incurred while executing a Python script.
4. Write a program to convert Celsius to Fahrenheit.
5. Write Python code to generate "AI is a Powerful Tool; however, it is to be used with "Discretion" as output.
6. Write a Python algorithm to find the larger of the two numbers.
7. Input a number and check whether it is a prime or a composite number using Python.
8. Input two numbers and find their HCF and LCM.
9. To print the format:
1
1 2
1 2 3
1 2 3 4
10. Generate the first n terms of a Fibonacci Series 0, 1, 1, 2, 3, 5, 8.
11. Write a Python program to simulate an **online shopping system** for students during a Children's Day sale. The program should:
 - a) Take the type of item purchased by the student as input (Stationery, Bag, or Laptop).
 - b) Take the price of the item as input. Based on the item selected, apply the following discounts: Stationery → 10% , Bag → 12% , Laptop → 15%The program should then: Calculate the discount amount, the final bill after discount. Use if-elif statements to implement the logic.

OR

11. Write a Python program to create a simple Classroom Management System. The program should include the following features:
 - a). Input Student Details and marks in 5 subjects
 - b). Calculate Total, Percentage and CGPA
 - c). Generate Report Card
 - d). Fetch Student Details
 - e). Display Final Result
 - f). Scholarship Check (Using if-else).

Girls' High School & College, Prayagraj

HOLIDAY HOMEWORK (PROJECT WORK)

Class – IX

Subject:- Hindustani Classical Music

2026-2027

TOPIC I

Short History of Music

1. Index
2. Acknowledgement
3. Introduction
4. History of Music
5. Ancient era
6. Medieval era
7. Modern era
8. Conclusion

TOPIC II

Life History of Pt. V. N. Bhatkhande

1. Introduction - Early life
2. His achievements
3. Contribution in the field of Music
4. Conclusion
5. Bibliography

NOTE:-

- Project to be made on inter-leaf pages.
- Paste coloured pictures on each blank page related to the topic and outline it. Pictures should be properly labelled.
- Heading and sub-headings to be written in black pen.
- 750 words for each topic.
- File to be covered with thin yellow chart-paper.

GIRLS' HIGH SCHOOL & COLLEGE, PRAYAGRAJ
CLASS : IX F
HOLIDAY HOMEWORK
PROJECT
SUBJECT: WESTERN MUSIC
SESSION: 2026 - 2027

Topic 1: Write about Johann Sebastian Bach (1685 - 1750).

1 st Page -	Title Page : Johann Sebastian Bach (1685 - 1750).
2 nd Page -	Acknowledgement
3 rd Page -	Contents
4 th Page -	Introduction: Life and Background
5 th Page -	His Musical Career
6 th Page -	Contribution and Legacy
7 th Page -	Conclusion
8 th Page -	Bibliography and Webliography

Topic 2: Select one instrument from each of the six main western music instrument families: keyboard family, string family, guitar family, woodwind family, brass family and percussion family.

9 th & 10 th Page -	Keyboard Family
11 th & 12 th -	String Family
13 th – 14 th -	Guitar Family
15 th – 16 th -	Woodwind Family
17 th – 18 th -	Brass Family
19 th – 20 th -	Percussion Family
21 st -	Conclusion
22 nd -	Bibliography and Webliography

NOTE:

- Student must use blue or black pen for the writing.
- Headings to be written with black sketch pen.
- Student must elaborate about the instrument and paste a colour picture in the following page.
- Page limits 20 pages.
- File to be cover with brown paper.