

**GIRLS' HIGH SCHOOL & COLLEGE, PRAYAGRAJ**

**HOLIDAY HOME WORK**

**SESSION: 2024-25**

**CLASS IX**

**SUBJECT: ENGLISH LANGUAGE**

1. Write a letter to your sister describing the medical camp, which was organized in your school, for an annual health check-up and the advice given to you about the lifestyle changes required to lead a healthy life.
2. Your school is organizing an Inter-House Fancy Dress competition on the occasion of Children's Day. Write a notice to be put up in your school inviting students of classes VIII to XII to participate in the event.

**INSTRUCTIONS:**

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

**GIRLS' HIGH SCHOOL & COLLEGE, PRAYAGRAJ**

**HOLIDAY HOME-WORK**

**SESSION: 2024-25**

**CLASS IX**

**ENGLISH LITERATURE ASSIGNMENT**

**ASSIGNMENT 1**

Write the paraphrase of the poem 'Skimbleshanks: The Railway Cat' by T. S. Eliot. Is the poem merely comical? What impression do you form of the Railway Cat in the poem?

**ASSIGNMENT 2**

Write the summary of Ruskin Bond's 'The Boy who Broke the Bank'. Was it Nathu's or the people's behaviour that caused the fall of the bank? Discuss it with reference to the story. Bring out the comic elements in the story.

**INSTRUCTIONS:**

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

**GIRLS' HIGH SCHOOL & COLLEGE, PRAYAGRAJ**

**SESSION – 2024-2025**

**CLASS - IX<sup>th</sup>**

**SUBJECT - HINDI**

**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.** सुदर्शन जी का परिचय, चारित्रिक तथा साहित्यिक विशेषताओं का वर्णन करते हुए बात अठन्नी पाठ का सचित्र सारांश लिखिए।

(i) प्रस्तावना (ii) जीवन परिचय (iii) शिक्षा (iv) साहित्यिक विशेषताएँ - 1) रचनाएँ  
2) पुरस्कार एवं उपलब्धियाँ (v) मृत्यु (vi) पाठ का सारांश (vi) निष्कर्ष

**प्रश्न2.** “आ बैल मुझे मार” उक्ति को आधार बनाकर एक मौलिक कहानी लिखिए जिसकी शब्द सीमा 400 से 450 शब्दों में हो।

4. कहानी से शिक्षा

5. संदर्भित ग्रन्थ

**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 चढ़ा कर उस पर अपना नाम, कक्षा /वर्ग एवं रोल नंबर अवश्य लिखें।

**END**

# GIRLS' HIGH SCHOOL & COLLEGE

SESSION:2024-2025

CLASS: IX

SUBJECT: MATHEMATICS

PROJECT

**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:** Use flat cutouts to form cube and cuboid to obtain formulae for volume and total surface area.

Also, use flat cutouts of cubes and cuboids to find volume and cross sectional area when divided into two equal halves

(i) horizontally            (ii) Vertically

**2- TOPIC:** Cut a circle into equal sections of small central angle to find the area of a circle by using the formula  $A = \pi r^2$

**3- TOPIC:** Solve the following system of linear equations by the following methods:

$$y = -\frac{2}{3}x + 6 \text{ and } 2x - 3y = 6$$

(i) Substitution method

(ii) Elimination method

(iii) Cross multiplication method

(iv) Graphically

(c) Bibliography

THE END

**GIRLS' HIGH SCHOOL & COLLEGE, PRAYAGRAJ**

**CLASS: IX**

**PROJECT WORK**

**SUBJECT: HISTORY/CIVICS**

**SESSION: 2024-2025**

1st Page:	TITLE PAGE: HARAPPAN CIVILIZATION
2nd Page:	Acknowledgement
3rd Page:	Contents
4th&5th Page:	Origin and Extent of Harappan Civilization
6th Page:	Introduction of Harappan Civilization
7th&8th Page:	Significant Features 1. Urban Town Planning- Streets Drainage System
9th&10th Page:	2. Architecture- Great Bath 3. Social Life- Food Dress
11th&12th Page:	4. Art & Craft- The Art of Sculpture * Sculpture in Metal * Sculpture in Stone * Sculpture in Terracotta
13th Page:	Art of Painting } Art of Pottery } One hand-made drawing Metal craft & Metallurgy
14th Page:	Writing and Script
15th Page:	5. Seals- * Shiv Pashupati * Unicorn
16th Page:	Importance of Seals
17th Page:	Conclusion (Decline of Harappan Civilization)
18th Page:	Bibliography & Webliography
19th&20th Page:	Collage (Pictures)

**NOTE:** Pictures to be pasted throughout the Project.

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END

**Girls High School and College, Prayagraj**  
**Session: 2024-2025**  
**Class: IX**  
**Subject: Geography**  
**Project**

**Topic No. 1: VOLCANOES**

**Sub Headings:**

- Acknowledgement
- Index
- Definition
- The causes of Volcanic Eruptions
- Types of Lava
  - Acid Lava
  - Basic Lava
- Types of Volcanoes
  - Active Volcanoes
  - Dormant Volcanoes
  - Extinct Volcanoes
- Types of Volcanic Landforms
  - Extrusive Landform
    1. Cinder Cone
    2. Composite Cones
    3. Lava Shields
  - Intrusive Landforms
    1. Dykes
    2. Sills
    3. Laccolith
- Constructive Effects of volcanoes
- Destructive Effects of volcanoes
- Conclusion

**Topic No. 2: EARTHQUAKES**

**Sub Headings:**

- Index
- Definition
- Seismic Waves
- Focus and Epicenter
- Causes of Earthquakes
  - Folding and Faulting
  - Volcanic Eruptions
  - Plate Tectonics
- Destructive Effects of an Earthquake
- Constructive Effects of an Earthquake
- Geographical distribution of Earthquakes
  - Circum-Pacific Earthquake Belt
  - Mid-World Mountain Earthquake Belt
- Conclusion
- Bibliography.

**END**

**HOLIDAY HOMEWORK**  
**SESSION:- 2024-25**  
**CLASS:- IX**  
**SUBJECT:- PHYSICS**

**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**

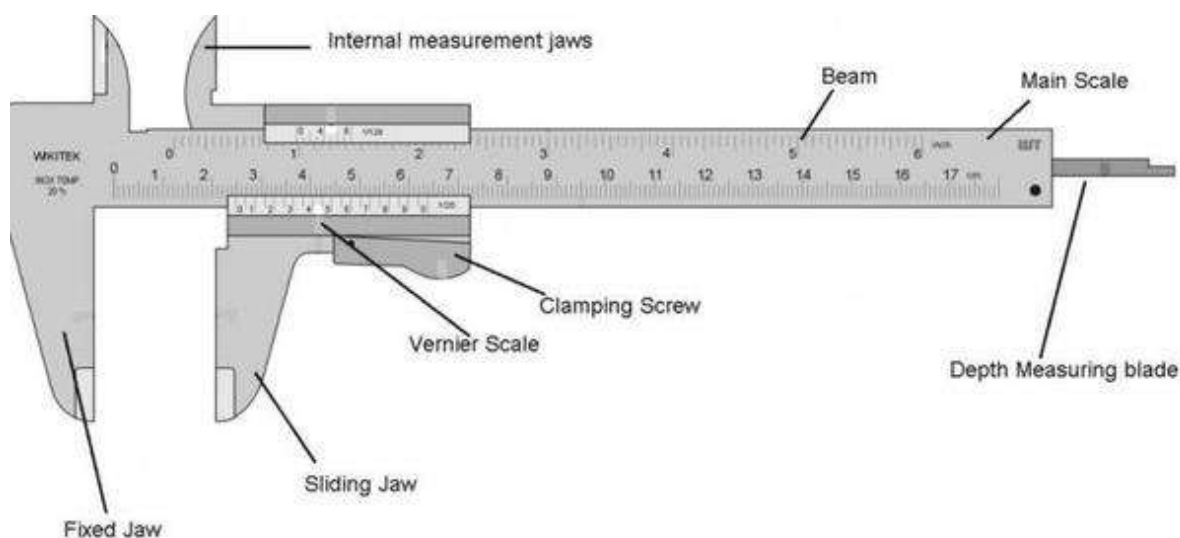
**AIM:-** To determine the length of the given wooden block with the help of Vernier Calliper.

**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				
<b>Mean Reading=</b>				

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

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

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



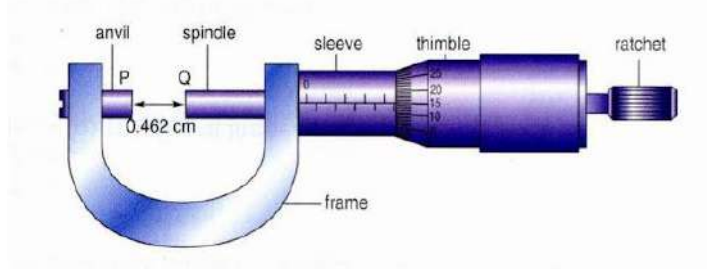
## EXPERIMENT NO. 2

**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.				
<b>Mean Reading=</b>				

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

**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.

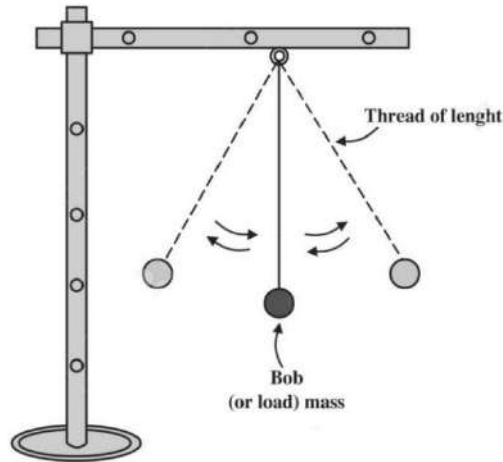
**APPARATUS REQUIRED:-** A bob, metallic stand with clamp, thread and stop clock.

**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

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

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



**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 <sup>2</sup> (cm/sec <sup>2</sup> )
1.					
2.					
3.					
4.					
<b>Mean Reading ( S )=</b>					

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

= \_\_\_ cm/sec<sup>2</sup>

= \_\_\_ m/sec<sup>2</sup>

**RESULT :-** The acceleration due to gravity = \_\_\_ m/sec<sup>2</sup>

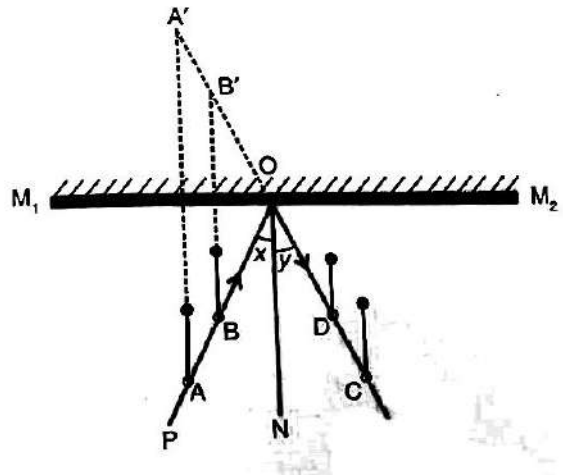
### EXPERIMENT NO.4

**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.

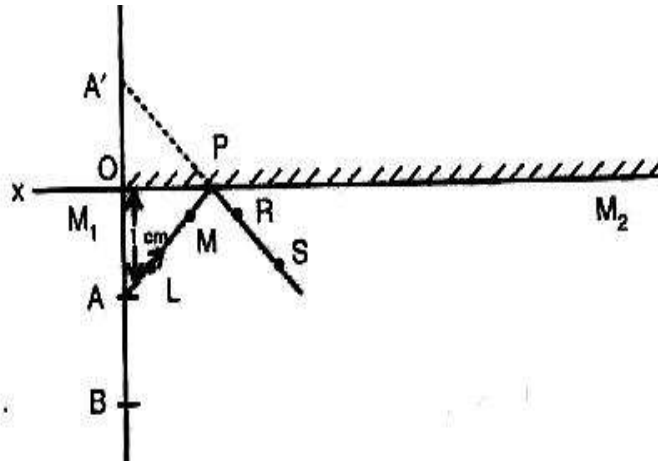
### EXPERIMENT NO.5

**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.

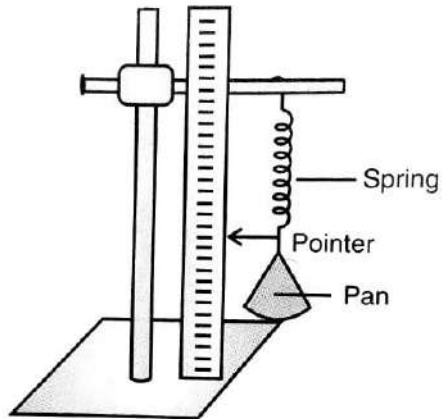
**THEORY:-** If a spring is stretched, the restoring force ( F ) applied by the spring to oppose the change in its length is directly proportional to the change in its length ( X ) i.e.

$$F \propto -X$$

$$F = -KX$$

$$mg = -KX$$

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.

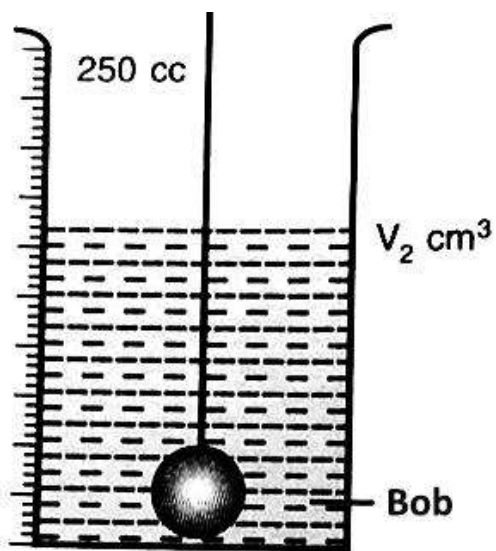
**RESULT :-** The value of X from the graph = \_\_\_ cm.

### 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 l)	Reading of the water level in the measuring cylinder with bob immersed $V_2$ (in l)	Volume of the bob $V=(V_2-V_1)$ l
1.			
2.			
3.			
4.			
<b>Mean Reading=</b>			

The volume of the bob = \_\_\_\_\_ l

The volume of the bob = \_\_\_\_\_ cm<sup>3</sup>

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<sup>3</sup>

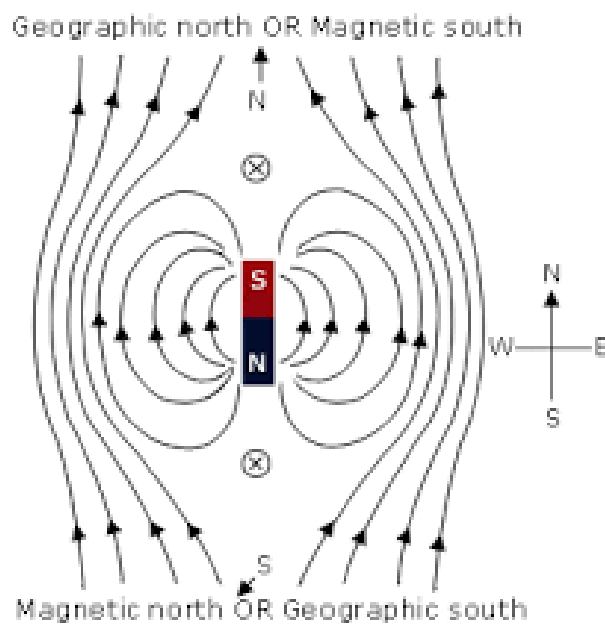
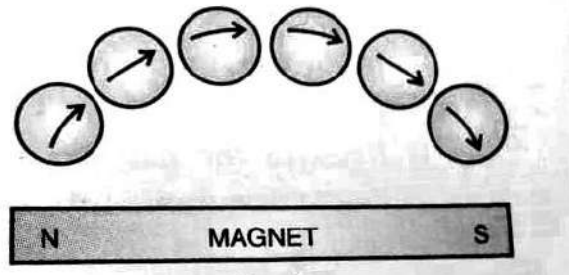
**RESULT :-** The volume of the given bob is \_\_\_\_\_ cm<sup>3</sup>

## 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: 2024-2025**  
**CLASS: IX**  
**SUBJECT: CHEMISTRY**

**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<sub>2</sub>S 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<sub>2</sub>S) gas is present.
- (ii) Hydrogen sulphide (H<sub>2</sub>S) gas is acidic in nature.
- (iii) Hydrogen sulphide (H<sub>2</sub>S) 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<sub>2</sub>SO<sub>3</sub> 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<sub>2</sub>) gas is present.
- (ii) Sulphur dioxide (SO<sub>2</sub>) gas is acidic in nature.
- (iii) Sulphur dioxide (SO<sub>2</sub>) gas is confirmed.

### Experiment No. 5

#### Object:-

To identify the gas evolved when conc. HNO<sub>3</sub> 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<sub>2</sub>) gas is present.
- (ii) Nitrogen dioxide (NO<sub>2</sub>) gas is acidic in nature.
- (iii) Nitrogen dioxide (NO<sub>2</sub>) 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 ( $\text{Na}^+$ ) 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 ( $\text{K}^+$ ) 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 ( $\text{Ca}^{2+}$ ) is present.

**Experiment No. 9**

**Object:-**

To identify the gas evolved when NaOH solution is added to a small amount of  $\text{NH}_4\text{Cl}$  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.  $\text{HCl}$  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  $\text{NH}_4\text{Cl}$  are evolved.

**Inference:-**

- (i) Ammonia ( $\text{NH}_3$ ) gas is present.
- (ii) Ammonia ( $\text{NH}_3$ ) gas is basic in nature.
- (iii) Ammonia ( $\text{NH}_3$ ) gas is confirmed.

**Experiment No.10**

**Object:-**

To identify the gas evolved when conc.  $\text{HCl}$  is added to  $\text{MnO}_2$  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 ( $\text{Cl}_2$ ) gas is present.
- (ii) Chlorine ( $\text{Cl}_2$ ) gas is acidic in nature and also a bleaching agent.
- (iii) Chlorine ( $\text{Cl}_2$ ) 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 are 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  $\text{KClO}_3$  and  $\text{MnO}_2$  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**  
**Session 2024-25**  
**Class IX**  
**SUBJECT BIOLOGY**

**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, safranin, 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 safranin 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 number 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**

**SESSION: 2024-2025**

**CLASS: IX (D, E, F, G)**

**SUBJECT: COMPUTER APPLICATIONS**

**PROJECT ASSIGNMENT NO. 1**

**INSTRUCTIONS:**

Students are expected to read and understand the programs from the book and write each program along with question from new page in computer project interleaf 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 ruled page and output on opposite blank page.
- 6: Cover your computer project with brown paper.
- 7: Write with blue gel pen only. Write the following programs along with output:

**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).

**THE END**



**GIRLS' HIGH SCHOOL & COLLEGE, PRAYAGRAJ**  
**SESSION – 2024-2025**  
**CLASS – 9 B & C**  
**SUBJECT – COMMERCIAL APPLICATIONS**  
**PROJECT**

**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 2024-25 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 5 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 growth of the Consumer Durables Industry in India—Take any 4 firms of the industry and group them according to ownership structures.
2. Write an essay about two organisations (one which uses communication effectively and one which does not) and show how this has an effect on their total working and profitability.
3. Visit any business firm in or near your locality. Meet the chief accountant/accounts manager of the firm and find out from him the accounting records/books of account maintained by the firm.
4. Critically evaluate the ways (Spoken and Written) of business communication in a commercial organisation. Write the factors which make one or the other method appropriate based on your understanding of commercial organisation.

**END**

**HOLIDAY HOMEWORK**

**SUBJECT: ART**

**CLASS : 9 A,C**

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