



# **SOUTH POINT PUBLIC SCHOOL, SONIPAT**



**SESSION-2024-25**

**CLASS-IX**

# SUMMER BREAK, 2024-25

(28<sup>th</sup> May to 30<sup>th</sup> June, 2024)

***The school shall re-open on Monday, 1<sup>st</sup> July, 2024 as usual.***

***Dear Students***

***Unfeigned Greetings!***

*Holidays' Homework serves several vital purposes for the students. It helps reinforce what students have learnt in the previous months, preventing the "Summer Slide" where important skills and Knowledge are forgotten over a long break.*

*Assignments given during the holidays help the students develop research, analytical, logical, speaking, writing, communication, reasoning and reading skills outside the regular classroom ambience. The Holidays' Homework introduces new concepts that will be taught in the coming days, giving students a head start. With more free time during the holidays, the given assignments help the students know how to balance leisure and work, fostering good habits in time management and self-discipline. Moreover, without the immediate support of teachers, the students learn to solve the problems on their own, fostering independence and confidence in their abilities.*

## **TIPS FOR DOING HOLIDAYS' HOMEWORK**

- **PLAN AHEAD:** *Start by listing all the Homework: Models, Projects, Assignments, Art -Integrated Activity etc., you need to complete. Break them into smaller, manageable tasks and set the deadlines for each.*
- **CREATE A SCHEDULE:** *Allocate specific times each day for the homework. Treat these times as the fixed appointments.*
- **SET CLEAR GOALS:** *Define what you need to accomplish in each study-session. Setting goals can keep you focused and give you a sense of achievement as you tick the tasks off your list.*
- **CHOOSE A CONDUCIVE AMBIENCE:** *Find a quiet and cosy place to study. Make sure it is free from distractions.*
- **TAKE REGULAR BREAKS:** *Don't forget to take short breaks to reset the brain.*
- **STAY ORGANISED:** *Keep all your study-material and notes organized and handy.*
- **REVIEW REGULARLY:** *Instead of cramming, review your notes, answers and other work regularly. This enhances memory-retention.*
- **STAY MOTIVATED:** *Keep your morale high.*
- **STAY HEALTHY:** *Maintain a balanced and nutritious diet, hydrate well and ensure that you get plenty of sleep. Stay away from heat. Your brain needs rest and fuel to function at its best.*

***MAY YOUR HOLIDAYS BE FILLED WITH HAPPINESS, FUN, FROLIC, LAUGHTER AND  
CHERISHED MEMORIES!***

**PRINCIPAL**

## English

### Section-A (Reading Skills)

#### (Let's Read, Comprehend and Answer)

- 1) Select the Articles/Write-Ups in about 200-250 words on each of the following topics from the English newspaper. Cut them and paste the cuttings in your notebook. Frame 4 supply-type questions, 2 MCQs and 2 questions on vocabulary and write their answers also.  
"Impact of Advertisement on Children", "Sports", "Social Media", "Obesity", "Women Empowerment", "Healthy Diet" and "The Problem of Pollution".

### Section-B: (Grammar)

#### (Let's Hone Grammar Skills)

Practise the exercises of "Subject - Verb – Agreement", "Tenses" and Re-arrangement of jumbled-up words to make meaningful sentences. (Any 20 sentences on each)

### Section-B (Creative Writing Skills)

#### (Let's Compose)

#### Descriptive Paragraphs Writing

1. Describe in about 120-150 words the English Declamation Contest held in your school.
2. Describe the personality traits of Robert Frost on an A-4 size coloured sheet and paste his photograph also, the basis of your reading of the poem "The Road Not Taken".

#### Story Writing

1. **Aradhana started writing a story of the "Two Boys in a Jungle". Due to the pressure of heavy engagements, she gave up, after writing a line or so. Taking help from the input given below and based on the introduction Aradhana made, develop a suitable story.**

Veeru and Karim were two young boys. Next week their school was going to organise a camp in a forest

**Outline:** went out to explore.....lost the way.....away from the camp..... cries of animals .....heard "thump-thump" sound.....a large elephant.....trumped angrily.....came towards them ..... a balloon started blowing .....big balloon..... hit hard with hand "bang-bang".....loud noise..... elephant turned away, saved.

2. **Mr. Aggarwal was a very wealthy businessman. One day he was sitting alone at his dining table when.....**

**Outline:** The thief entered..... Mr Aggarwal thanked.....to give company .....birthday .....gave him good food and drinks .....gave a purse full of silver coins..... years passed by .....fortunes changed .....business ruined .....Mr Aggarwal became poor..... 50th birthday.....alone..... no food .....no drinks, bell rang.....a man emerged..... recognised .....the old thief..... came with fruits, sweets and drinks and a bag full of money.

### Section-C (Literature)

#### (Let's Check Literary Flavour)

#### Note:-Read the below- given chapters:

'The Fun They Had', 'The Lost Child', 'The Sound Of Music', 'The Adventures of Toto'

Poem:- 'The Road Not Taken', 'Wind'

Frame 10 extra short questions from each of them and then write their answers also.

#### Art- Integrated Activity

Select any four historical monuments of Manipur and write 10-12 lines on each of them on A-4 size coloured sheets. Paste the pictures also.

#### (Speaking Skills)

Speaking Skills are equally significant in education. Effective Speaking not only allows students to express themselves confidently but also enables them to articulate their thoughts and ideas clearly. Strong Speaking Skills contribute to academic vibrance, self confidence and future career opportunities. These skills are essential for demonstrating understanding, critical thinking and effective argumentation. Prepare a SPEECH in about 180 -200 words on any one of the following topics, prepare it excellently well, deliver the same at home, make a video and send it to the respective Class Teacher by 8th June, 2024

positively.

Ensure that you are in proper school uniform while delivering the speech.

1. 'Importance of Vote'
2. 'Benefits of Early Rising'
3. 'Social Media : Boon or Curse'
4. 'How to Manage Anger?'

## हिंदी

- कथा वाचन करते हुए एक वीडियो बनाएं और 4 जून को अपनी हिंदी अध्यापिका को व्हाट्सएप पर भेजें।
- मणिपुर और हरियाणा की संस्कृति को दर्शाते हुए एक सुंदर परियोजना तैयार करें।
- ग्रीष्मावकाश का अनुभव बताते हुए हिमाचल में रहने वाले मित्र को एक पत्र लिखें।
- युवा पीढ़ी के बदलते तेवरों पर अपने विचार व्यक्त करते हुए एक अनुच्छेद लिखें।
- ग्रीष्मावकाश में विद्यालय में नाट्य प्रशिक्षण शिविर आयोजित करने का अनुरोध करते हुए प्रधानाचार्य को ई. मेल लिखिए।
- कक्षा में करवाए गए पाठ्यक्रम को याद करके दो से तीन बार लिखित अभ्यास करें।

## Mathematics

### 1. Make PPT on:

- Introduction to polynomials.
- Polynomials Classification.
- Degrees of a Polynomial
- Terms of a Polynomial
- Types of Polynomials
- Graphical representation of equation.

### 2. Make a Project work and chart

- Lines and angles Project, Modal for boys.
- Lines and angles chart for girls.

### 3. Lab Manual Activity

Page No.

1. To construct a square root spiral

1-3

3. To verify the algebraic identity

7-9

$$a^3 - b^3 = (a-b)(a^2 + ab + b^2)$$

10. To verify that sum of angles of a triangle is  $180^\circ$  30-32

19. To verify that angles of same segments are equal. 56-58

21. To verify that sum of opposite angles is  $180^\circ$   
in a cyclic quadrilateral. 62-64

25. To find formula for surface area of sphere. 74-75

4. Do the following Assignment in the fair notebook



## Chapter-1

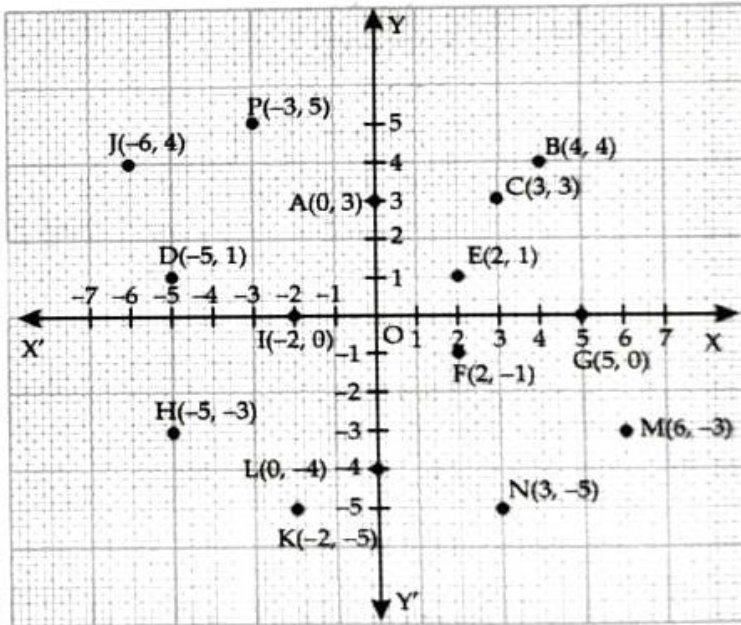
1. If  $\frac{3^{5x} \times 81^2 \times 6561}{3^{2x}} = 3^7$ , then  $x =$   
 (a)  $-3$                       (b)  $3$                       (c)  $-\frac{1}{3}$                       (d)  $\frac{1}{3}$ .
2. The product  $\sqrt[3]{2} \times \sqrt{2} \times \sqrt[4]{32}$  equals:  
 (a)  $\sqrt{2}$                       (b)  $2$                       (c)  $\sqrt[3]{2}$                       (d)  $\sqrt[3]{32}$ .
3. Two irrational numbers between 2.4713 and 2.4742 are ..... and .....
4. Check whether  $-\frac{\sqrt{63}}{\sqrt{448}}$  is a rational number or an irrational number.
5. Simplify:  $\left(\frac{2^{-1} \times 3}{2^2 \times 3^{-4}}\right)^{7/2} \times \left(\frac{2^{-2} \times 3^2}{2^3 \times 3^{-5}}\right)^{-5/2}$ .
6. Represent  $\sqrt{5}$ ,  $\sqrt{10}$  and  $\sqrt{17}$  on the number line.
7. Prove that:  $0.142857142857 \dots = \frac{1}{7}$ .
8. Simplify:  $\sqrt[4]{81} - 8\sqrt[3]{216} + 15\sqrt[5]{32} + \sqrt{225}$ .
9. Simplify:  $\left(\frac{3}{5}\right)^4 \left(\frac{8}{5}\right)^{-12} \left(\frac{32}{5}\right)^6$ .
10. If  $\sqrt{2} = 1.414$ ,  $\sqrt{3} = 1.732$ , then find the value of  $\frac{4}{3\sqrt{3}-2\sqrt{2}} + \frac{3}{3\sqrt{3}+2\sqrt{2}}$ .
11. If  $x = \frac{\sqrt{3}+\sqrt{2}}{\sqrt{3}-\sqrt{2}}$  and  $y = \frac{\sqrt{3}-\sqrt{2}}{\sqrt{3}+\sqrt{2}}$ , then find the value of  $x^2 + y^2$ .

### ANSWERS

- |        |        |  |                    |
|--------|--------|--|--------------------|
| 1. (a) | 2. (b) | 3. 2.47141010010001... ; 2.47209200920009... | 4. Rational number |
| 5. 4   | 9. 0   | 10. $\frac{2025}{64}$                        | 11. 2.063          |
|        |        |  | 13. 98.            |

## Chapter-3

1. The abscissa of a point is positive in the :  
 (a) First and Second of a point is positive in the:  
 (b) Third and Fourth quadrants  
 (c) Second and Third quadrants  
 (d) Fourth and First quadrant
2. If  $a < 0$  and  $b < 0$  then the point  $P(a,b)$  lies in  
 (a) Quadrant IV                      (b) quadrant II                      (c) quadrant III                      (d) quadrant I
3. The point  $(5,-3)$  lies in \_\_\_\_\_ quadrant
4. If  $(x+1, x)$  and  $(6,y-2)$  represent the same point in Cartesian plane, then find  $x$  and  $y$ .
5. Plot the points in the Cartesian plane :  $(-3, 3)$ ,  $(-4,-3)$ ,  $(5,-3)$  and  $(3,6)$ .
6. Write five distinct points whose distance from the  $x$ -axis is twice that from  $y$ -axis.
7. In which quadrant or on which axis each of the following points lies?  
 $(-3,5)$ ,  $(4,-1)$ ,  $(2,0)$ ,  $(2,2)$ ,  $(-3,-6)$
8. A point lies on the  $x$ -axis at a distance of 7 units from the  $y$ -axis. What are its coordinates? What will be the coordinates if it lies on  $y$ -axis at a distance of  $-7$  units from  $x$ -axis?
9. Find the coordinates of the point:  
 (i) which lies on  $x$  and  $y$ -axis both  
 (ii) whose ordinate is  $-4$  and which lies on  $y$ -axis  
 (iii) whose abscissa is  $5$  and which lies on  $x$ -axis.



10. Write the coordinates of the vertices of a rectangle whose length and breadth are 5 and 3 units respectively, one vertex at the origin, the longer side lies on the x-axis and one of the vertices lies in the third quadrant.
11. Plot the points P (1,0), Q (4,0) and S (1,3). Find the coordinates of the point R such that PQRS is a square.
12. From the figure, answer the following:
  - (i) Write the points whose abscissa are 0.
  - (ii) Write the points whose ordinates are 0.
  - (iii) Write the points whose abscissa are -5.
13. Plot the points (1,-1) and B (4,5)
  - (i) Draw a line segment joining these points. Write the coordinates of a point on this line segment between the points A and B.
  - (ii) Extend this line segment and write the coordinates of a point on this line which lies outside the line segment AB.

### Answers

- |  |   |                   |             |
|--|---|-------------------|-------------|
| 1. (d)                                       | 2. (c)  | 3. Fourth         | 4. X=5, y=7 |
| 6. (3,6), (-2,4), (5, -10), (2,4), (-7, -14) | 7. II, IV, x-axis, I, III                       | 8. (7,0), (0, -7) |             |
| 9. (i) (0,0) (ii) (0,-4) (iii) (5,0)         | 10. (-5,0), (-5,-3), (0,3) and (0,0)            |                   |             |
| 11. (4,3)                                    | 12. (i) A, L and O (ii) G,I and O (iii) D and H |                   |             |

### Chapter-4

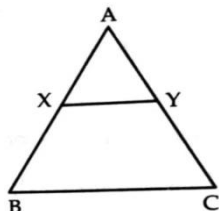
1. Any solution of the linear equation  $2x + 0y + 9 = 0$  in two variables is of the form:
 

(a) $(-\frac{9}{2}, m)$	(b) $(n, -\frac{9}{2})$	(c) $(0, -\frac{9}{2})$	(d) (-9,0)
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2. How many linear equations in x and y can be satisfied by  $x=1$  and  $y=2$ ?
 

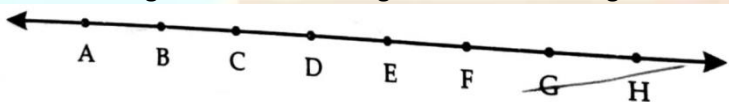
(a) Only one	(b) Two	(c) Infinitely many	(d) Three
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3.  $Y=0$  in the equation of \_\_\_\_\_.
4. Draw the graph of  $y=5x$ .
5. Determine the point on graph of the linear equation  $2x + 5y = 19$ , where ordinate is  $1\frac{1}{2}$  times the abscissa.
6. For what value of c, the linear equation  $2x + cy = 8$  has equal values values of x and y for its solution?
7. Write four solutions of  $2x + y = 7$ .
8. Find the value of k so that  $x = -1, y=1$  is a solution of  $9kx + 12ky = 63$ .
9. Show the system of equations graphically:
 
$$4x + 3y = 6, 2x - 5y = 16$$
10. Solve  $\frac{3x+2}{7} + \frac{4(x+1)}{5} = \frac{2}{3}(2x + 1)$

## Chapter-5

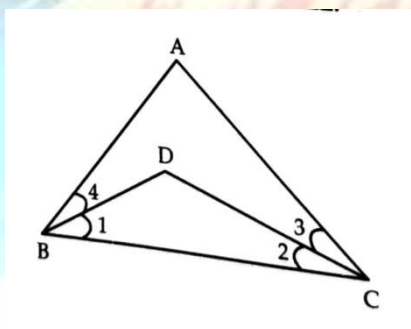
1. Which of the following solid figures does not exist?
  - (a) Pyramid with triangular base
  - (b) Pyramid with circular base
  - (c) Pyramid with square base
  - (d) Pyramid with pentagonal base.
2. A pyramid is a solid figure the base of which is:
  - (a) Only a triangle
  - (b) only a square
  - (c) only a rectangle
  - (d) any polygon
3. If the lines AB and AC are parallel to a line l, then the points A,B and C are \_\_\_\_\_.



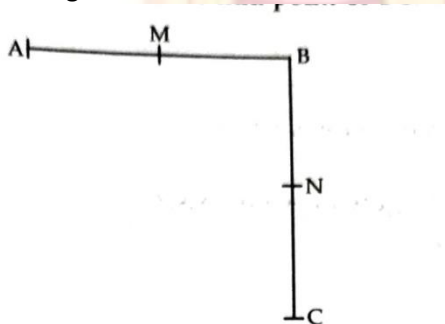
4. State Euclid's fifth postulate with supporting diagram.
5. In the Fig. ,  $AX = \frac{1}{2} AB$ ,  $AY = \frac{1}{2} AC$  and  $AX = AY$ , prove that  $AB = AC$ .
6. Prove that two distinct lines cannot have more than one point in common.
7. It is known that  $x + y = 10$  and that  $x = z$ . Show that  $z + y = 10$ .
8. Look at the figure. Show that length  $AH >$  Sum of lengths of  $AB + BC + CD$ .



9. In the Fig.  $\angle ABC = \angle ACB$  and  $\angle 3 = \angle 4$ . Prove that  $\angle 1 = \angle 2$



10. In the Fig.



- (i)  $AB = BC$ , M is the mid-point of AB and N is the mid-point of BC.
- (ii)  $BM = BN$ , M is the mid-point of AB and N is the mid-point of BC. Show that  $AB = BC$ . Show that  $AB = BC$ .
11. Read the following statements which are taken as axioms:
  - (i) If a transversal intersects two parallel lines, then corresponding angles are not necessarily equal.

(ii) If a transversal intersects two parallel lines, then alternate interior angles are equal.  
Is this system of axioms consistent? Justify your answer.

12. Read the following two statements which are taken as axioms:

(i) If two lines intersect each other, then vertically opposite angles are not equal.

(ii) If a ray stands on a line, then the sum of angles so formed is equal to  $180^\circ$ . Is this system of axiom consistent? Justify your answer.

13. Read the following axioms:

(i) Things which are equal to the same thing are equal to one another.

(ii) If equals are added to equals, the wholes are equal.

(iii) Things which are double of the same thing are equal to one another.

Check whether the given system of axioms is consistent or inconsistent.

**Answers**

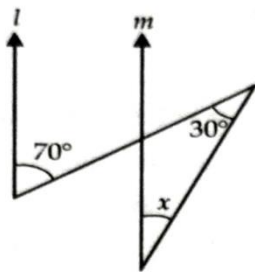
1. (b)

2. (c)

3. Collinear

**Chapter- 6**

1. In Fig. if lines  $l$  and  $m$  are parallel lines, then  $x =$

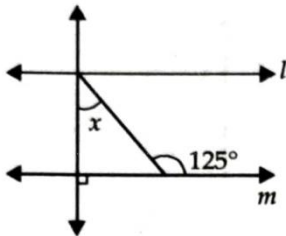


(a)  $100^\circ$

(b)  $70^\circ$

(c)  $40^\circ$

2. In fig. if lines  $l$  and  $m$  are parallel, then the value of  $x$  is:



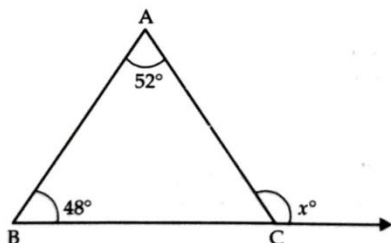
(a)  $35^\circ$

(b)  $65^\circ$

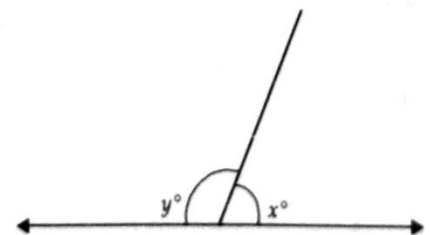
(c)  $55^\circ$

3. If two parallel lines are intersected by a transversal then the co-interior angles are \_\_\_\_\_

4. What is the value of  $x$  in the adjoining figure?



5. In the fig. find  $x$  and  $y$  if  $x - y = 70^\circ$



6. In  $\Delta ABC$ , if  $2\angle A = 3\angle B = 6\angle C$ , find all the angles of the triangle.





**Q6.** Give two reasons to justify-

- (a) water at room temperature is a liquid.
- (b) an iron almirah is a solid at room temperature.

**Q7.** Why is ice at 273 K more effective in cooling than water at the same temperature?

**Q8.** Comment on the following statements:

- (a) Evaporation produces cooling.
- (b) Rate of evaporation of an aqueous solution decreases with increase in humidity.
- (c) Sponge though compressible is a solid

**Q9.** Distinguish solids, liquids and gases in a tabular form under the following characteristics.

- (i) Rigidity
- (ii) Compressibility
- (iii) Inter-particle forces of attraction
- (iv) Inter-particle spaces

**Q10.** Give reasons:

- (i) Steam produces more severe burns than water.
- (ii) We are able to sip hot tea faster from a saucer than a cup.
- (iii) Water kept in earthen pot becomes cool during summer.

**Q11.** Explain:

- (i) Sponge though compressible is a solid.
- (ii) Gases completely fill the vessel in which they are kept.

**Q12.** Which of the following will show "Tyndall effect" ?

- (a) Salt solution
- (b) Milk
- (c) Copper sulphate solution
- (d) Starch solution.

**Q13.** Classify the following into elements, compounds and mixtures:

- |             |                       |                    |
|-------------|-----------------------|--------------------|
| (a) Sodium  | (b) Soil              | (c) Sugar solution |
| (d) Silver  | (e) Calcium carbonate | (f) Tin            |
| (g) Silicon | (h) Coal              | (i) Air            |
| (j) Soap    | (k) Methane           | (l) Carbon dioxide |
| (m) Blood   |                       |                    |

**Q14.** Distinguish between homogeneous and heterogeneous mixture. Classify the following mixtures as homogeneous and heterogeneous.

- (i) Tincture of iodine
- (ii) Smoke
- (iii) Brass
- (iv) Sugar solution

### Practical Work

**Experiment1.** Preparation of:

- (a) a true solution of common salt, sugar and alum
- (b) a suspension of soil, chalk powder and fine sand in water
- (c) a colloidal solution of starch in water and egg albumin/milk in water and distinguish between these on the basis of
  - (i) transparency
  - (ii) filtration criterion
  - (iii) stability

**(BIOLOGY)**  
**Assignment- A**

Write the following in biology notebook-

1. Write down the roles of plasma membrane and cell wall
2. What are ribosomes? Where are they located in a cell?
3. Name three functional regions of a cell.
4. Name the cell organelle which plays an important role in detoxifying many poisons and drugs in the liver cells of vertebrates.
5. What is a prokaryotic cell?
6. Where are the chromosomes present in a cell? Write down the chemical composition of chromosomes.
7. What is the name given to the undefined nuclear region of prokaryotic cell?
8. What is the full form of ATP?
9. Which of the following organisms are composed of a single cell?  
(Chlamydomonas, mosquito, butterfly, snake, Paramecium)
10. Which cell organelle is synthesised by the Golgi apparatus?
11. Name the organelle which is associated with protein synthesis.
12. Name the longest human body cell.
13. Name the membrane which covers the vacuole in plant cell
14. What are the two components of chromosome?
15. Name the membrane which covers the vacuole in plant cell.
16. What are the two components of chromosome?
17. Why is plasma membrane called a selectively permeable membrane?
18. Write down two differences between diffusion and osmosis.
19. Do you agree that "A cell is a building unit of an organism". If yes, explain why?
20. Which cell organelle is called 'suicide bags'? Why is this organelle called so?
21. What kind of plastid is more common in?
  - (a) Roots of the plant
  - (b) Leaves of the plant
  - (c) Flowers and fruits.
22. Name the organelles which show the analogy written as under:
  - (a) Transporting channels of the cell-....
  - (b) Powerhouse of the cell.....
  - (c) Packaging and dispatching unit of the cell...
  - (d) Digestive bag of the cell....
  - (e) Storage house of the cell.....
  - (f) Kitchen of the cell....
  - (g) Control room of the cell....

**Assignment – B**

1. Draw the diagram of a plant cell and animal cell.
2. What is active transport? Differentiate between active and passive transport.
3. Draw the diagram of mitochondria. Write its functions.
4. Draw a well-labelled diagram of the bacterial cell.
5. With the help of a labelled diagram, explain the structure of nucleus.

**Assignment-C**

Make model (with the help of thermocol sheets and chart) on one of the following topics –

- Animal cell
- Plant cell

- Mitochondria
- Chloroplast
- Nucleus and its parts

**Note: Also learn the above topics.**

### Social Science

- **Learning Task:**

Learn and revise all the chapters taught so far and do written practice in the fair notebook.

- **Pre- Reading Task:**

Democratic Politics Chapter -2 Constitutional Design

Chapter -3 Electoral Politics

History Chapter- 1 French Revolution

Read the above chapters and find out at least 15 extra questions (1 marks ) from each chapter and write in the fair notebook.

- **Make a Project on anyone of the (Natural Disaster) topic given below:**

Floods, Droughts, Cyclones, Earthquakes, Volcanic Eruptions, Landslides any other.

On the outline map of the world locate the following:

North America, Asia , Europe, Australia ,Africa, Antarctica ,South America and paste in scrap book.

- **Find out which type of government is present in the following Countries :**

Pakistan, England, USA.

Write in detail about your research and prepare comments on any one country and its type of government in the scrap book.(3-4 pages)

### Information Technology

- Read Unit- 1(Part- A) Communication Skills-I and Unit 3(Part B) Digital Documentation.
- Write question answers of Unit-3 (Part A) ICT Skills and Unit-1 (Part B) Introduction to IT-ITES Industry.
- Do the exercise of Unit-1 (Part- A) and Unit -3 (Part B).
- Learn questions of Unit 3 (ICT Skills) and Unit- 1 (Introduction to IT-ITES Industry)
- Make a presentation on “Applications of IT” in different sectors.
- Activity:-  
Roll No. (1-15) Make a chart on” Different types of browser”.  
Roll No. (16-30) Make a chart on” Social media applications”.