



ARMY PUBLIC SCHOOL BIRPUR
SUMMER BREAK HOLIDAY HOMEWORK
CLASS : IX
SESSION- 2020-2021

ENGLISH

1. Make poster on A4 sheets on the following topics (Any two):

- (a) Protect yourself and others from getting sick: Wash your hands
- (b) Cleanliness
- (c) Good Habits
- (d) Role of good citizens in the time of crisis

2. Write a letter your grandfather/grandmother who stays in other village/city telling about the pandemic COVID-19 and suggesting the precautions to be taken care of.

3. Write a letter to your friend suggesting him how to make creative use of the free time.

4. Write an article on the following topics in 100 to 200 words:

- (a) The Time spent with your family during pandemic.
- (b) Impact of COVID-19 on the world.
- (c) Role of Educated people in time of Epidemics.
- (d) How to overcome your biggest fear.

5. Profile making.

6. Article or Poem (on any topic for school magazine)

7. Create a memory collage to have as a souvenir and to remember all your experiences like fun, pain, new learnings etc during this quarantine.

S.SCIENCE

1. Make following project on pandemic covid-19.

- A. Show state wise data of india with the help of bargraph on the no. Of patients and deaths from coronavirus.
- B. collect pictures from newspaper related to the conditions of indian labours during pandemic covid-19 and prepare a collage.
- C. Write a speech :role of ayurveda to boost your immunity for coronavirus prevention.

2. Make a pie-chart based on the % of small, medium and large farmers in India from 1951 to 2011 (data should be based on 10 years gap for ex. 1951, 1961, 1971 till 2011).
3. Write a debate : in the favour and against democracy (in the context of India).
4. Make a collage on the cultural diversity of Indian subcontinent.

SCIENCE

- Q1 A given substance X has definite volume, no fixed shape and diffuses easily. What is the physical state of the substance X?
 (a) Solid (b) liquid (c) gas (d) all of these
- Q2 Heat required to change the state of a substance without changing its temperature is called:-
 (a) Ignition temperature (b) melting heat (c) boiling heat (d) latent heat
- Q3 Which one characteristic of liquid makes them resemble gas?
 (a) Definite volume (b) Indefinite shape (c) Arrangement of particles (d) indefinite volume
- Q4 Which one is the porous solid?
 (a) Rock (b) Wood (c) Sponge (d) Iron
- Q5 Which phenomenon occurs during the following changes?
 (a) Formation of clouds
 (b) Drying of wet clothes
 (c) Melting of wax in sun.
 (d) Size of naphthalene balls decreases.
- Q6(a) Conversion of solid to vapour is called sublimation. Name the term used to denote the conversion of vapour to solid.
 (b) Conversion of solid state to liquid state is called fusion; what is meant by latent heat of fusion?
- Q7. What is diffusion? How is it affected by the temperature?
- Q8. Draw a labeled diagram for sublimation.
- Q9. Write concept of matter according to Indian philosophers in 30 words.
- Q10. Draw a flow chart to show interconversion of state of matter.
- Q11. Write 10 words from Chapter 1 with their definitions.
- Q12. Draw a scenery to show solid liquid and gaseous state in our surrounding in an art sheet.

Note: Do Q1 to Q11 in a thin copy.

BIOLOGY

- Q1. Who proposed cell theory? Write the postulates of cell theory.
- Q2. Differentiate between unicellular and multicellular organisms with suitable examples.
- Q3. Define isotonic, hypertonic and hypotonic solutions and explain the movement of water from a cell in these solutions with diagrams.
- Q4. Explain the structure of plasma membrane with a suitable diagram and also mention its functions.
- Q5. Explain the structure of nucleus with the help of a diagram.
- Q6. Write five differences between a prokaryotic and eukaryotic cell.
- Q7. Find the discoverers of simple microscope, compound microscope and electron microscope with the year of discoveries.
- Q8. Why is cell called the structural and functional unit of life? Justify your answer.
- Q9. Draw a well labeled diagram of a compound microscope in a plain sheet.
- Q10. Draw a plant cell (roll no 1 to 10), animal cell (roll no 11 to 20), prokaryotic cell (roll no 21 to 30), various types of cell (roll no 31 to 40) and structure of nucleus (roll no 41 to 50) in a chart paper.

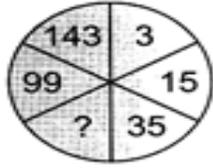
Note: Do Q1 to Q8 in a thin copy.

COMPUTERS

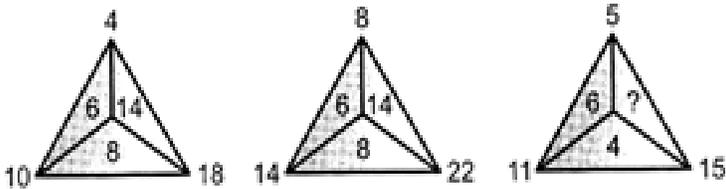
- 1) Make a presentation (10-15 slides) in MS PowerPoint on topic "Computer security and privacy". And choose an appropriate theme for the slide show and apply different layouts on slides.
- 2) Create a document in MS WORD on "Computer Operating System", select the text and make the first sentence bold, second underlined and third italics. Make the font color blue. Capitalize each word in the last sentence and save the document.
- 3) Read and prepare Unit -1 (Functional English (Basic)) at home.

MATHS

1. Find the missing number in the figure below



2. Which number will replace the question mark in the figure below?



3. In a certain code 'SHIVANGI' is written as 'RGHVZMFH'. How can 'JILMIL' be written in that code?

4. In the following letter series how many 'R's are following by 'P', but not preceded by 'S'?

S R P R Q R S P R P R P O R P S T P O

5. Prepare a project on Number System (*Hint you can include chapter summary*). It can be in the form of word file, PPT or Hand written.

OR

Investigate the history on the Topic "Pythagoras Theorem" or "π"

6. Do in Lab Manual

(i) Represent $\sqrt{5}$, $\sqrt{7}$ graphically (use graph paper) or do it by paper folding Activity and paste.

(ii) Represent $\sqrt{17}$, $\sqrt{37}$ graphically (use graph paper)

(iii) Verify the Circumference – diameter ratio of the circle experimentally and illustrate "π"

CHAP1: NUMBER SYSTEM

CLASS IX WORKSHEET

1. Every whole number is a natural number write true or false.
2. Find two rational numbers between 0.1 and 0.3
3. Express $3\frac{1}{8}$ in the form of decimal and write its decimal form?
4. Insert two rational number between $\frac{2}{5}$ and $\frac{3}{4}$

