OM PUBLIC SCHOOL, GOHANA

HOLIDAY'S HOMEWORK

CLASS: IX

ENGLISH

1. Book Review

Read Wings Of Fire by APJ Abdul Kalam (an English novel) and write a creative book review including:

Main characters

Plot summary

One quote you loved and why

Your own alternate ending.

2. Reading Section

Read Unit 2 (Adventure) of the Main Course Book and

complete the activities given in the unit.

3. Writing Skills

Imagine you visited a country you've never been to.

Write a diary entry describing your arrival and a special experience there.

Include a photo page with doodles or cutouts of famous places, food, or culture.

4. Grammar Section

BBC Compacta

Complete Homework Assignments 1 to 5 from Module 1.

5. Grammar Workbook Assignments (Module 6)

Gap Filling – PA 33, HA 28 (page no 260 to 263)

Editing - PA 34, HA 30 (page no 270 to273)

Omissions – PA 35, HA 32 (page no 281, 282, 285, 286)

Rearranging Sentences – PA 37 , HA 33 (page no 291 to 294)

Descriptive Paragraphs (Module 3) Page No. 171

Page No. 179

6. Creative Skills

Make a fun folder covering the following topics with one example each:

Similes and Metaphors

Personification

Direct and Indirect Speech

Active and Passive Voice

Use real-life photos or cartoons to explain each concept creatively.

हिंदी

1. प्रतिदिन के अखबार से दस-दस कठिन शब्द लिखें।
2. मुंशी प्रेमचंद के संघर्षों को लिखिए।
3. कबीरदास के एक से चार तक दोहे लिखें व गायन का अभ्यास करें।
4. प्रकृति को कैसे बचाया जा सकता है? चार्ट पर चित्र उतारकर अपने विचार लिखें।
5. अपनी किसी एक यात्रा का वर्णन करें जो आपने अपने जीवन में की हो।
6. जितने अध्याय करवाए गए हैं उन सभी के प्रश्न -उत्तर अच्छी तरह से याद करने हैं।
7. अपने जीवन का लक्ष्य बताते हुए उसे हासिल करने के लिए आप क्या-क्या प्रयास करेंगे विस्तार से लिखें।
8. गर्मी से बचने के लिए किस फल का प्रयोग करना चाहिए? फल खाते हुए हर चौथे दिन अपनी कक्षा शिक्षक/शिक्षिका को फोटो साझा करें।

MATHEMATICS

Chapters: Number Systems, Polynomials, Coordinate Geometry

Total Questions: 20

INSTRUCTIONS

1. Write all Algebraic Identities on A4 sheet.
2. Explain quick techniques to calculate the square of any number less than hundred and find out the square using this quick technic .
3. Make a tree of different shapes of quadrilateral with waste material.
3. To make 20 mcq questions related to number system and polynomial .
4. Do the given assignment.

Section A: Number Systems (7 Questions)

1. Simplify: $(2 + \sqrt{3})(2 - \sqrt{3})$
2. Rationalize the denominator: $5 / (\sqrt{3} + \sqrt{2})$
3. Write the decimal expansion of 7/8. Is it terminating or non-terminating?
4. Express $\sqrt{50}$ in the form $a\sqrt{b}$, where a and b are integers and b is not divisible by any square number.
5. Is $\sqrt{2} + \sqrt{3}$ a rational number? Justify your answer.
6. Find two irrational numbers between 2 and 3.
7. Represent $\sqrt{5}$ geometrically on the number line using the spiral method.

Section B: Polynomials (7 Questions)

8. Find the value of the polynomial $p(x) = 2x^2 - 3x + 4$ at $x = -2$.
9. If $p(x) = x^3 - 3x^2 + 5x - 7$, find $p(1)$ and $p(-1)$.
10. Divide $2x^3 + 3x^2 - x - 5$ by $x + 1$ using long division.
11. Factorise: $x^2 - 7x + 12$
12. Show that $(x - 1)$ is a factor of $x^3 - 3x^2 + x + 5$ using remainder theorem.

13. Expand: $(2x - 3)^2$
14. Find the remainder when $2x^3 + x^2 - x + 4$ is divided by $x - 1$.

Section C: Coordinate Geometry (6 Questions)

15. Plot the points A(2, 3), B(-4, -2), and C(0, -3) on the Cartesian plane. In which quadrants do they lie?
16. Find the distance between the points P(3, 4) and Q(7, 1).
17. What is the x-coordinate of a point lying on the y-axis?
18. Find the coordinates of a point that lies 4 units to the right of the origin on the x-axis.
19. If a point is equidistant from (2, 3) and (2, -3), what can you say about its position?
20. Plot a triangle with vertices A(1, 2), B(4, 6), and C(1, 6) and find its area.

SCIENCE

NOTE: HOMEWORK SHOULD BE IN NEAT AND CLEAN HANDWRITING.

1. Do the following Assignment of chapter motion, Cell, & Matter in our surroundings in your holiday's homework notebook:

1. Explain the structure and function of the plasma membrane. How does it regulate the movement of substances?
2. Describe the structure and function of mitochondria. Why are they called the 'powerhouses' of the cell?
3. What are the differences between plant and animal cells? Discuss their structural and functional variations.
4. Define osmosis. Explain its significance in the uptake of water by plant roots.
5. What is the role of the Golgi apparatus in a cell? Discuss its importance in cellular processes.
6. Explain the process of protein synthesis in cells. Where do these processes occur, and what are their roles?
7. Describe the structure and function of the nucleus. How does it control cellular activities?
8. What is the significance of chloroplasts in plant cells? Explain their role in photosynthesis.
9. Discuss the differences between prokaryotic and eukaryotic cells. Provide examples of each.
10. What are lysosomes? Why are they referred to as 'suicide bags' of the cell?
11. A particle is moving in a circle of diameter 5m. Calculate the distance covered and the displacement when it competes 3 revolutions.
12. A body thrown vertically upwards reaches a maximum height 'h'. It then returns to ground. Calculate the distance travelled and the displacement.
13. A body travels a distance of 15m from A to B and then moves a distance of 20m at right angles to AB. Calculate the total distance travelled and the displacement.
14. An object is moving in a circle of radius 'r'. Calculate the distance and displacement (i) when it completes half the circle (ii)when it completes one full circle.
15. An object travels 16m in 4s and then another 16m in 2s. What is the average speed of the object?
16. Vishnu swims in a 90m long pool. He covers 180m in one minute by swimming from one end to the other and back along the same straight path. Find the average speed and average velocity of Vishnu.
17. In a long-distance race, the athletics were expected to take four rounds of the track such that the line of finish was same as the line of start. Suppose the length of the track was 200m.

(a) What is the total distance to be covered by the athletics?

(b) What is the displacement of the athletics when they touch the finish line?

(c) Is the motion of the athletics uniform or non-uniform?

(d) Is the displacement of an athletic and the distance covered by him at the end of the race equal?

18. Starting from a stationary position, Bhuvan paddles his bicycle to attain a velocity of 6m/s in 30s.Then he applies brakes such that the velocity of bicycle comes down to 4m/s in the next 5s. Calculate the acceleration of the bicycle in both the cases.

19. Amit is moving in his car with a velocity of 45km/hr. How much distance will he cover
(a) in one minute (b) in one second.

20. The odometer of a car reads 2000 km at the start of a trip and 2400km at the end of the trip. If the trip took 8 hrs., calculate the average speed of the car in km/hr and m/s.

21. An electric train is moving with a velocity of 120km/hr. How much distance will it move in 30s?

22. A body is moving with a velocity of 15 m/s. If the motion is uniform, what will be the velocity after10s?

23. Explain the characteristics of particles of matter. How do these characteristics help in understanding the different states of matter?

24. Describe an activity to demonstrate that matter is made up of particles. What observations support this conclusion?

25. What is diffusion? How does the rate of diffusion vary in solids, liquids, and gases? Explain with examples.

26. Discuss the interconversion of states of matter with the help of a flow chart. Name the processes involved in each change.

27. Explain the process of evaporation. How does it cause cooling? Discuss the factors affecting the rate of evaporation.

28. What is latent heat? Differentiate between latent heat of fusion and latent heat of vaporization with examples.

29. Describe an experiment to show that ammonium chloride undergoes sublimation. What observations confirm this change of state?

30. Why does a diver cut through water easily? Explain the property of matter responsible for this observation.

31. How does the temperature affect the state of matter? Discuss with reference to water at different temperatures.

32. Why do we see water droplets on the outer surface of a glass containing ice-cold water? Explain the phenomenon involved.

2. Read and learn the questions as per syllabus done till date.
3. Read and learn the questions answers from NCERT EXAMPLER as per syllabus done till date.
4. To **write** following experiments in **lab manual** according to following format. For **the subparts** of the experiments, you have to follow the same pattern as given below.

L.H.S (Blank Page)	R.H.S
1. Aim 2. Material required 3. Diagram, if any 4. Observation Table 5. Result	1. Aim 2. Material Required 3. Procedure 4. Observations 5. Precautions, if any 6. Result / conclusion

LIST OF EXPERIMENTS

1. 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 them on the basis of

(i) transparency

(ii) filtration criteria

(iii) stability

2. Determination of the melting point of ice and boiling point of water.

3. Preparation of stained temporary mounts of (a) Onion peel (b) Human cheek cells and to record observations and draw their labelled diagrams.

4. Preparation of (a) a mixture

(b) a compound

Using iron fillings and Sulphur powder and distinguish between these on the basis of

(i) appearance i.e. homogeneity and heterogeneity

(ii) behavior towards a magnet

(iii) behavior towards carbon disulphide as a solvent

(iv) effect of heat

5. Perform following reactions and classify them as physical or chemical changes (a) iron with copper sulphate solution in water.

(b) burning of magnesium ribbon in air. (c) zinc with dilute sulphuric acid

(d) heating of copper sulphate crystals

(e) sodium sulphate with barium chloride in the form of their solutions in water.

5. **TO PREPARE AN ASSIGNMENT ON THE FOLLOWING TOPICS AS PER YOUR CLASS ROLL NUMBER**. E.g. If your class roll no is 3, then you have to prepare assignment written in front of the roll number 3. While writing the assignment in file, **you have to add new ideas, concept, uses other than we studied in class**. Try to be creative while preparing assignment.

ROLL NO	TOPIC FOR ASSIGNMENT
1.	Distance and Displacement, Speed and velocity
2.	Table for the types of matter and their properties as per ncert textbook table with examples.
3.	Study of change in temperature scales along with the examples.
4.	Interconversion of states of matter.
5.	Graphical representation the states of rest and motion. (s-t graphs and v-t graphs)
6.	Uniform and non-uniform motion (Daily life Examples)
7.	Distance and displacement with daily life examples.
8.	Speed, velocity and Acceleration
9.	Rate of change of velocity i.e. Acceleration with the help of Graph and daily life examples.
10.	Cellular diversity in living Organisms
11.	Hypotonic, Isotonic and Hypertonic solution
12.	Endoplasmic reticulum, its functions
13.	Plastids, its types and functions
14.	Golgi Apparatus and its functions
15.	Factors affecting the rate of evaporation. (Daily life examples)
16.	Uniform and non-uniform motion (Daily life Examples)
17.	Distance and displacement
18.	Speed and velocity
19.	Rate of change of velocity that is Acceleration
20.	Characteristics of the particles of matter on the basis of some activities given in the NCERT textbook.
21.	Hypotonic, Isotonic and Hypertonic solution
22.	Endoplasmic reticulum and its functions
23.	Plastids, its types and functions
24.	Golgi Apparatus and its functions
25.	Interconversion of states of matter.
26.	Table for the types of matter and their properties as per ncert textbook along with examples.
27.	Evaporation and Factors affecting the rate of evaporation. (Daily life examples)
28.	Graphical representation of the states of rest and motion. (s-t graphs and v-t graphs)
29.	Speed and velocity

30.	Uniform and non-uniform motion (Daily life Examples)
31.	Cell and its organelles
32.	Hypotonic, Isotonic and Hypertonic solution
33.	Uniform and non-uniform motion (Daily life Examples)
34.	Rate of change of velocity i.e. Acceleration with the help of Graph and daily life examples.
35.	Study the states of matter along with the examples as per ncert book.
36.	Graphical representation the states of rest and motion. (s-t graphs and v-t graphs).
37.	Uniform and non-uniform motion (Daily life Examples)
38.	Study of change in temperature scales along with the examples.
39.	Characteristics of the particles of matter on the basis of some activities given in the NCERT textbook.
40.	Distance and displacement, Speed and Velocity.

SOCIAL SCIENCE

Note: Make a separate notebook for this homework.

Handwriting must be neat and clean.

Assignment -Based on reading skills.

Reading skills

HISTORY

Ch.1 The French Revolution

CIVICS

Ch.1 What is Democracy?And Why Democracy?

2 Constitutional Design

GEOGRAPHY

Ch.1 India: size and location

ECONOMICS

Ch.1 People as a Resource

Project Work:

A. Prepare a project file with following details:

1. The total length of the project report should not be more than 8-10 A-4 size sheets.

2. The project report should be hand written and credit will be awarded to original drawings, illustrations and creative

use of eco – friendly materials.

3. The project report should be developed and presented in the following order:

a) List of contents with page numbers.

b) Certificate page

c) Chapters with relevant headings.

d) Summary and conclusion based on findings

e) Bibliography: should have the title , author, publisher and if a website the name of the website with the specific website link which has been used.

TOPIC: (**Choose any one topic for your project)**

Fundamental Rights

OR

Indian Parliament

OR

Resource

THINKING SKILLS –

1.If you were a member of the Third Estate in 1789, what changes would you have demanded in the French political and social system?

2.Why is it important to focus on both men and women as equal contributors to the economy? How does gender inequality affect national development?

3.. If you were given the chance to improve democracy in your country, what changes would you suggest and why?

4. Compare two countries—one democratic and one non-democratic. What differences do you find in the lives of ordinary citizens?

Map Skill:

A) Practice of all Indian states and capitals with the locations on Indian political map.**(5times)**

B.Practice of Europe on the world map.(France, Germany, Italy, Spain, and the United Kingdom.)**(5times)**

Prpepare a collage on Sindoor Operation

I.T

1. Make a 'Curriculum Vitae' including basic details , objectives, Education skill and technical skill with the help of wps office (using mobile app) or using laptop(open office or libre office).

2. Make an assignment on the topic ICT, Role & importance of ICT in our daily life, ICT tools.

3. Learn unit-1 and 2.

Note:- Assignment must be handwritten(5-6 pages).

SUBJECT – I.T

Topic:- Fundamental of Computer

Q1. Multiple choice Questions:

1. The basic operations performed by a computer are
a) Arithmetic operation b) Logical operation
c) Storage and relative d) All the above

2. ASCII and EBCDIC are the popular character coding systems. What does EBCDIC stand for?
a) Extended Binary Coded Decimal Interchange Code
b) Extended Bit Code Decimal Interchange Code
c) Extended Bit Case Decimal Interchange Code
d) Extended Binary Case Decimal Interchange Code

3. The brain of any computer system is
a) ALU b) Memory c) CPU d) Control unit

4. The two kinds of main memory are:
a) Primary and secondary b) Random and sequential c) ROM and RAM d) All of above

5. CD-ROM is a
a) Semiconductor memory b) Memory register c) Magnetic memory d) None of above

6. Which of the following is not a type of computer on the basis of operation?
a) Digital b) Analog c) Hybrid d) Remote

7. A hybrid computer
a) Resembles digital computer b) Resembles analogue computer
c) Resembles both a digital and analogue computer d) None of the above

8. The ALU of a computer responds to the commands coming from
a) Primary memory b) Control section c) External memory d) Cache memory

9. Which of the following storage devices can store maximum amount of data?
a) Floppy Disk b) Hard Disk c) Compact Disk d) Magneto Optic Disk

10. Which of the following is not an input device?
a) OCR b) Optical scanners
c) Voice recognition device d) COM (Computer Output to Microfilm)

11. Which of the following type of computer is mostly used for automatic operations?
a) analog b) digital c) hybrid d) remote

12. Which of the following computers are lower than mainframe computers in terms of speed and storage capacity?
a) Mainframes b) Hybrid c) Mini d) Super

13. Which of the following is the first neural network computer?
a) AN b) AM c) RFD d) SNARC

14. Which of the following devices provides the communication between a computer and the outer world?

a) Compact b) I/O c) Drivers d) Storage

15. Which of the following are physical devices of a computer?

a) Hardware b) Software c) System Software d) Package

Q11. Write the shortcut keys of the commands given below:

a) Cut .....

b) Copy .....

c) Paste .....

d) Create a file .....

e) Save a file .....

f) Open a file .....

g) Print a file .....

h) Bold a text .....

i) Italicize a text .....

j) Underline a text .....

k) Find a piece of text .....

l) Replace a piece of text .....

m) Use format Painter feature.....

n) Use subscript feature .....

o) Use superscript feature .....

p) Spell check .....

q) Grammar Check.....

Some points to remember

* Drink plenty of juice and water to avoid dehydration.

* Make hand washing and hygiene a part of your routine.

* Holiday Homework is a part of subject enrichment and will be assessed on the basis of creativity and efforts of the students.

* It's the perfect time to enhance your speaking skills and vocabulary by conversing in English with your family and siblings.

Reading is essential for those who seek to rise above the ordinary.

* Spend your quality time reading purposeful books.

* A beautiful handwriting makes a good impression. Practice one page of English and Hindi handwriting daily.

Schedule your time for activities so that there is no piling up of homework for the last moment.

* Holiday homework should be your authentic creative work.

● HAPPY SUMMER HOLIDAYS ●