



Sainik School Khara Kheri
C/o Royal International Residential School
NH-9, Khara-Kheri, Fatehabad (Haryana)
(CBSE Affiliation. No:- 530879, School Code:- 40850)



Holidays Homework

Class : 7th

Summer Vacation!



Dear Cadets,

The summer break is an opportunity to relax and rejuvenate. However, it is also essential to stay academically active and physically disciplined. The following instructions are to be strictly followed while completing your holiday homework:

GENERAL INSTRUCTIONS

1. Time Management:

Devote 3–4 hours daily to your academic work.
Reserve time for physical training and reading.

2. Presentation:

Complete all written work neatly.
Use blue/black ink for writing and pencils for diagrams.
Label each subject clearly.

3. Discipline and Responsibility:

Maintain a daily routine including PT, study, and personal hygiene.
Practice good manners and respect towards family members.
Keep a diary to record your daily activities and reflections.

4. Reading and Knowledge Enhancement:

Read at least one biography of a military leader or freedom fighter.
Watch educational documentaries and national news regularly.

5. Fitness:

Practice basic physical training: push-ups, sit-ups, running, yoga etc.
Maintain a healthy diet and sleep schedule.

Important Note:

All homework must be submitted on the first day of re-opening after the vacation. Remember, as cadets of Sainik School, you are expected to be responsible, self-motivated, and disciplined. Use this time wisely to grow academically, physically, and morally.

Jai Hind!

Commandant

ENGLISH

English Literature

Read Lesson 1 to 3 and frame 10 one word Question/answers from each chapter.

English Grammar

1. Frame 10 sentences on each type of sentence.
2. Prepare a mind map on Adjectives and its types.
3. **Underline the noun and identify the types:-**
 - (a) The committee reached its decision after hours of discussion.
 - (b) Shakespeare's works are admired for their depth and imagination.
 - (c) A fleet of ships sailed across the ocean at dawn.
 - (d) Poverty often leads to suffering and despair.
 - (e) The jury delivered its verdict unanimously.
 - (f) The beauty of the Taj Mahal attracts millions of tourists.
 - (g) Honesty and integrity are valued qualities in a leader.
 - (h) The bouquet of flowers was placed on the table.
 - (i) The crowd cheered when the team won the championship.
 - (j) Water is essential for survival and growth.
5. **Fill in the blanks using appropriate articles:-**
 - (a) ___ honesty is always appreciated.
 - (b) He went to ___ school early in the morning.
 - (c) She is ___ MLA and her brother is ___ doctor.
 - (d) ___ milk is good for health.
 - (e) I met ___ boy who won ___ prize yesterday.
 - (f) ___ Ram is my neighbour.
 - (g) He is ___ European player and ___ honest man.
 - (h) . ___ gold is a precious metal.
 - (i) We reached ___ station before ___ train arrived.
 - (j) ___ Delhi is ___ capital of India.
 - (k) She gave me ___ useful advice.
 - (l) ___ books on the table are mine.
 - (m) He goes to ___ bed at 10 p.m.
 - (n) ___ Ganga flows into ___ Bay of Bengal.
 - (o) She wants to become ___ engineer.
6. Write a letter to the Principal of your school requesting permission to organize a class picnic.

HINDI

1. मल्हार कक्षा में पढ़ाए गए पाठ्यक्रम को दोहराएं - एवं पुस्तक में अभ्यास पत्र को पूर्ण करके लाएं। (केवल पुस्तक कार्य)
2. व्याकरण - 25 पर्यायवाची शब्द , 25 विलोम शब्द लिखें व याद करें।
3. कोई एक औपचारिक पत्र व एक अनौपचारिक पत्र लिखें व याद करें।
4. निम्नलिखित में से दिए गए किन्हीं दो विषयों पर अनुच्छेद लिखें।
 - क) जल संरक्षण
 - ख) पर्यावरण संरक्षण
 - ग) विद्यार्थी जीवन
 - घ) सैनिक स्कूल में पढ़ने के फायदे



MATHS

Section -A

ALGEBRAIC EXPRESSIONS-ADDITION , SUBTRACTION , MULTIPLICATION AND DIVISION

1. Add the following expressions:

(a) $p^2 - 7pq - q^2$ and $-3p^2 - 2pq + 7q^2$

(b) $x^3 - x^2y - xy^2 - y^3$ and $x^3 - 2x^2y + 3xy^2 + 4y^3$

(c) $ab + bc + ca$ and $-bc - ca - ab$

(d) $p^2 - q + r$, $q^2 - r + p$ and $r^2 - p + q$

(e) $x^3y^2 + x^2y^3 + 3y^4$ and $x^4 + 3x^3y^2 + 4y^4$

(f) $p^2qr + pq^2r + pqr^2$ and $-3pq^2r - 2pqr^2$

(g) $uv - vw$, $vw - wu$ and $wu - uv$

(h) $a^2 + 3ab - bc$, $b^2 + 3bc - ca$ and $c^2 + 3ca - ab$

(i) $t - t^2 - t^3 - 14$; $15t^3 + 13 + 9t - 8t^2$; $12t^2 - 19 - 24t$ and $4t - 9t^2 + 19t^3$

2. Subtract

(a) $-7p^2qr$ from $-3p^2qr$

(b) $-a^2 - ab$ from $b^2 + ab$.

(c) $-4x^2y - y^2$ from $x^3 + 3xy^2 - x^2y$.

(d) $x^4 + 3x^3y^2 + 5y^4$ from $2x^4 - x^3y^2 + 7y^4$.

(e) $ab - bc - ca$ from $-ab + bc + ca$.

(f) $-2a^2 - 2b^2$ from $-a^2 - b^2 + 2ab$.

(g) $x^3y^2 + 3x^2y^2 - 7xy^2$ from $x^4 + y^4 + 3x^2y^2 - xy^2$.

(h) $2(ab + bc + ca)$ from $-ab - bc - ca$.

(i) $4.5x^3 - 3.4x^2 + 5.7$ from $5x^4 - 3.2x^2 - 7.3x$.

3. Solve the following sums using BODMAS:-

(a) $15 + 6 \div 3 \times 2$

(b) $(18 - 6) \times (12 + 4)$

(c) $25 - [8 + (4 \times 2)]$

- (d) $100 - (20 \div 5) + 6 \times 2$
 (e) $72 + 6 + 5 \times (3 + 2)$
 (f) $9 \times 2 + (6 + 3) - 4$
 (g) $130 - [18 + (3 \times 3)]$
 (h) $(52 - 9) \times (6 + 2)$
 (i) $48 - (16 - [4 \times 2])$
 (j) $18 + 36 + 6 - (3 \times 2)$

Section B

4. a) Simplify the following using law of Exponents:-

(i) $\frac{2^3 \times 3^4 \times 4}{2 \times 32}$

(ii) $[(5^2)^3 \times 5^4] \div 5^7$

(iii) $25^4 \div 5^3$

(iv) $\frac{3 \times 7^2 \times 11^8}{21 \times 11^3}$

(v) $\frac{3^7}{3^4 \times 3^3}$

(vi) $2^0 + 3^0 + 4^0$

(vii) $2^0 \times 3^0 \times 4^0$

(viii) $(3^0 + 2^0) \times 5^0$

(ix) $\frac{2^8 \times a^5}{4^3 \times a^3}$

(x) $\left(\frac{a^5}{a^3}\right) \times a^8$

(xi) $\frac{4^5 \times a^8 b^3}{4^5 \times a^5 b^2}$

(xii) $(2^3 \times 2)^2$

b) Solve the following:-

(i) $(3^{-1} \times 9^{-1}) \div 3^{-2}$

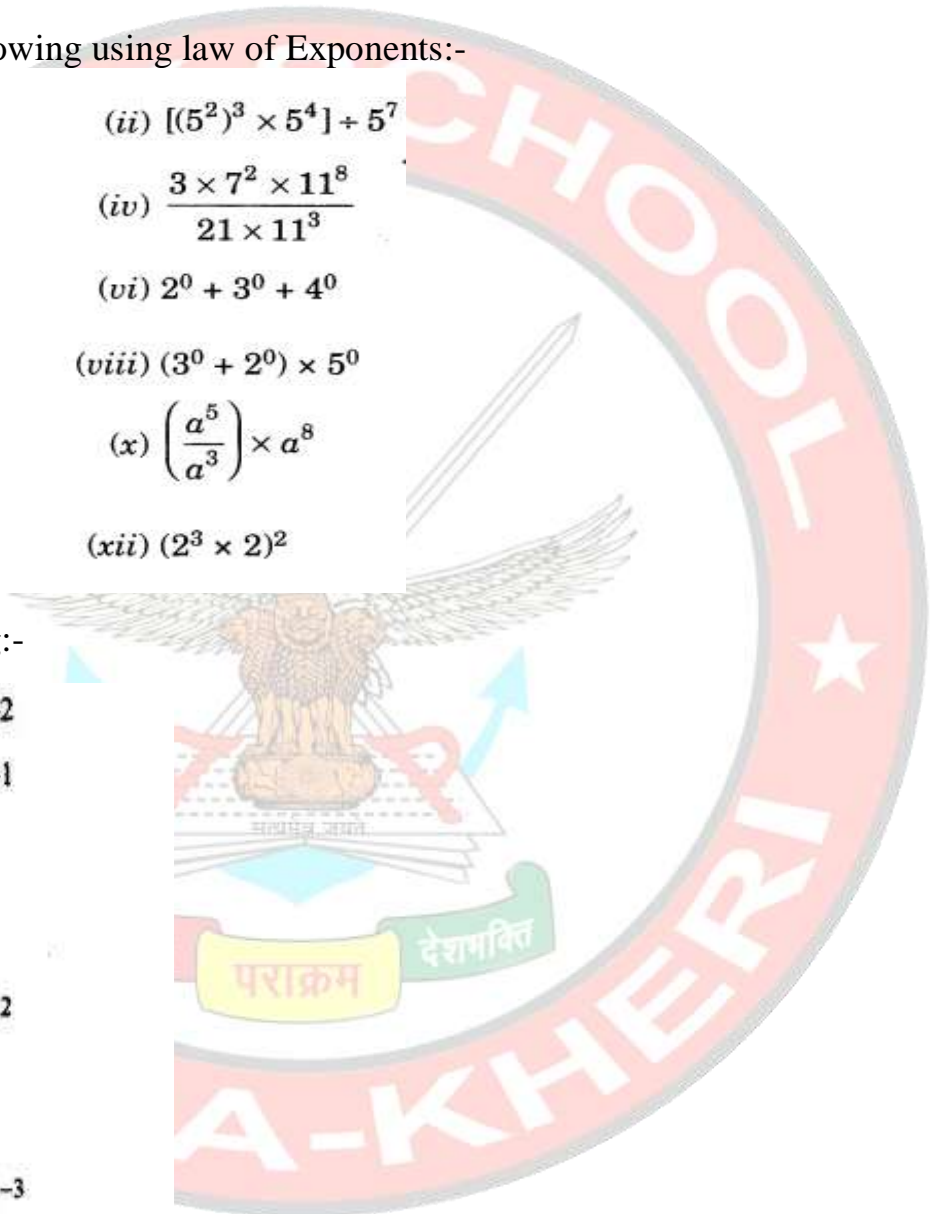
(ii) $(3^{-1} \times 4^{-1}) \div 6^{-1}$

(iii) $(2^{-1} + 3^{-1})^3$

(iv) $(3^{-1} \div 4^{-1})^2$

(v) $(2^2 + 3^2) \times \left(\frac{1}{2}\right)^2$

(vi) $(5^2 - 3^2) \times \left(\frac{2}{3}\right)^{-3}$



Section C

OBJECTIVE TYPE QUESTIONS

Ch-1

A. Mark the correct alternative in each of the following:

1. Which of the following pairs is/are like terms?

- (1) x (2) x^2 (3) $3x^3$ (4) $4x^3$
 (a) 1, 2 (b) 2, 3 (c) 3, 4 (d) None of these

2. Which of the following is not a monomial?

- (a) $2x^2 + 1$ (b) $3x^4$ (c) ab (d) x^2y

3. The sum of the coefficients in the monomials $3a^2b$ and $-2ab^2$ is

- (a) 5 (b) -1 (c) 1 (d) -6

4. The coefficient of x^2 in $-\frac{5}{3}x^2y$ is equal to

- (a) $-\frac{5}{3}$ (b) $-\frac{5}{3}y$ (c) $\frac{5}{3}$ (d) $\frac{5}{3}y$

5. If a , b and c are respectively the coefficients of x^2 in $-x^2$, $2x^2 + x$ and $2x - x^2$ respectively, then $a + b + c =$

- (a) 0 (b) -2 (c) 2 (d) -1

6. The sum of the coefficients in the terms of $2x^2y - 3xy^2 + 4xy$ is

- (a) -3 (b) 3 (c) 9 (d) 5

7. The product of the coefficients of terms in $-\frac{4}{3}ab^2 + \frac{1}{4}bc^2 + 3ca^2$ is

- (a) 1 (b) $\frac{1}{2}$ (c) -1 (d) 3

8. If a and b are respectively the sum and product of coefficients of terms in the expression $x^2 + y^2 + z^2 - xy - yz - zx$, then $a + 2b =$

- (a) 0 (b) 2 (c) -2 (d) -1

9. If $P = 3x^3 + 3x^2 + 3x + 3$ and $Q = 3x^2 - 3x + 3$, then $P - Q =$

- (a) $3x^3$ (b) $3x^3 + 6x^2 + 6x + 6$ (c) $6x^2 + 6x + 6$ (d) $3x^3 + 6x$

10. The sum of the values of the expression $2x^2 = 2x + 2$ when $x = -1$ and $x = 1$ is

- (a) 6 (b) 8 (c) 4 (d) 2

11. What should be added to $3x^2 + 4$ to get $9x^2 - 7$?

- (a) $6x^2 - 11$ (b) $6x^2 + 11$ (c) $12x^2 - 11$ (d) $12x^2 + 11$

12. How much is $a^2 - 3a$ greater than $2a^2 + 4a$?

- (a) $a^2 - 7a$ (b) $a^2 + 7a$ (c) $-a^2 - 7a$ (d) $-a^2 + 7a$

13. How much is $-2x^2 + x + 1$ less than $x^2 + 2x - 3$?

- (a) $-x^2 + 3x - 2$ (b) $3x^2 + x - 4$ (c) $-3x^2 - x + 4$ (d) $3x^2 + 3x - 4$

B. Solve the following

1. Which is greater of: 48.23 and 36.35
2. Express $1359/1000$ as decimal.
3. Add 16.44, 8.524 and 26
4. Find the value of: $108.032 - 88.9$
5. By how much 34.9 should be increased to get 70.9
6. Simplify $35.9 - 16.09 + 88.2 - 50.6$
7. Find the product of : 3.25×12
8. Multiply 0.345 by 0.0237
9. Find the area of a rectangle whose length is 5.5 m and breadth is 3.4 m.
10. One kg of rice cost Rs 42.65. What will be the cost of 15 kg of rice.
11. Divide $128.9/100$
12. Divide $93.45/25$
13. Divide $48.08/400$
14. The cost of 24 pens is rs 2986.80. Find the cost of one pen.
15. The product of two decimals is 1.8576, if one of decimals is .54. Find the other.
16. Product of two decimal is 42.987, if one of them is 12.46, find the other.
17. A car covers a distance of 89.1 km in 2.2 hours. What is the average distance covered by it in one hour.
18. Each side of a regular polygon is 2.5 cm in length. The perimeter of the polygon is 12.5 cm. How many sides does the polygon have?

SCIENCE

Multiple Choice Questions

Q1. Which of the following is a pure substance?

- (a) Air
- (b) Salt solution
- (c) Distilled water
- (d) Soil

Q2. A material that allows electric current to pass through it easily is called:

- (a) Insulator
- (b) Conductor
- (c) Switch
- (d) Fuse

Q3. Which indicator turns red in acidic solution?

- (a) Blue litmus
- (b) Red litmus
- (c) Turmeric
- (d) China rose indicator

Q4. Which of the following is an acid?

- (a) Soap solution
- (b) Lemon juice
- (c) Baking soda
- (d) Toothpaste

Q5. The symbol used for an electric cell in a circuit diagram is:

- (a) Circle
- (b) Parallel lines of unequal length
- (c) Zig-zag line
- (d) Rectangle

Q6. Which of the following is a base?

- (a) Vinegar
- (b) Orange juice
- (c) Lime water
- (d) Tamarind

Q7. The bulb in an electric circuit glows when:

- (a) The circuit is open
- (b) The circuit is incomplete
- (c) The circuit is closed
- (d) The switch is broken

Q8. Which natural indicator is obtained from lichens?

- (a) Litmus
- (b) Turmeric
- (c) Phenolphthalein
- (d) China rose

Q9. Which of the following is an insulator?

- (a) Copper wire
- (b) Aluminium foil
- (c) Plastic ruler
- (d) Iron nail

Q10. A solution that changes red litmus to blue is:

- (a) Acidic
- (b) Neutral
- (c) Basic
- (d) Salty

Q11. The flow of electric charges through a conductor is called:

- (a) Voltage
- (b) Current
- (c) Circuit
- (d) Resistance

Q12. Which of the following is used to test whether a material conducts electricity?

- (a) Thermometer
- (b) Electric tester
- (c) Compass
- (d) Balance

Q13. Turmeric indicator changes to which color in a basic solution?

- (a) Blue
- (b) Red
- (c) Green
- (d) Yellow

Q14. Which device is used to open or close an electric circuit?

- (a) Bulb
- (b) Cell
- (c) Switch
- (d) Wire

Q15. Which of the following substances is neutral in nature?

- (a) Distilled water
- (b) Vinegar
- (c) Soap solution
- (d) Lemon juice

Q16. In an electric bulb, the thin wire that glows is called:

- (a) Terminal
- (b) Filament
- (c) Conductor
- (d) Coil

Q17. Which of the following is a weak acid?

- (a) Sulphuric acid
- (b) Hydrochloric acid
- (c) Citric acid
- (d) Nitric acid

Q18. Which combination will complete an electric circuit?

- (a) Plastic wire and bulb
- (b) Copper wire and cell
- (c) Rubber wire and switch
- (d) Wooden stick and bulb

Q19. A base reacts with an acid to form:

- (a) Only water
- (b) Only salt
- (c) Salt and water
- (d) Gas and water

Q20. Which of the following materials can be used to make electric wires?

- (a) Wood
- (b) Rubber
- (c) Copper
- (d) Glas

Assertion–Reason Questions

Directions: In each of the following questions, a statement of Assertion (A) is followed by a statement of Reason (R). **Mark the correct choice as:**

- a)** Both (A) and (R) are true, and (R) is the correct explanation of (A).
- b)** Both (A) and (R) are true, but (R) is NOT the correct explanation of (A).
- c)** (A) is true, but (R) is false.
- d)** (A) is false, but (R) is true.

Q21. Assertion (A): Lemon juice turns blue litmus red.

Reason (R): Lemon juice is acidic in nature.

Q22. Assertion (A): A bulb does not glow in an open circuit.

Reason (R): Electric current cannot flow through a broken path.

Q23. Assertion (A): Turmeric can be used as an indicator.

Reason (R): Turmeric changes colour in acidic and basic solutions.

Q24. Assertion (A): Copper is used in electric wires.

Reason (R): Copper is a good conductor of electricity.

Q25. Assertion (A): Distilled water is a neutral substance.

Reason (R): It does not change the colour of litmus paper.

Short Answer type Questions

- Q26.** Define an electric circuit.
Q27. Name any two acidic substances found in the kitchen.
Q28. What is the function of a switch in an electric circuit?
Q29. Differentiate between conductors and insulators with one example each.
Q30. What is an indicator? Name two natural indicators.
Q31. Why does a bulb not glow when connected with plastic wire?
Q32. Explain neutralization reaction with one example.

Q33. Draw the symbol of:

- (a) Electric cell
- (b) Bulb
- (c) Switch (open)

Q34. Why should electric wires be covered with plastic?

Q35. State any two precautions while handling acids in the laboratory.

Long Answer type Questions

Q36. Explain the properties of acids and bases with suitable examples.

Q37. Describe the construction and working of a simple electric circuit with a labelled diagram.

Q38. Differentiate between acids, bases and neutral substances on the basis of:

- (a) Taste
- (b) Effect on litmus
- (c) Examples

Q39. Explain different types of indicators and their colour changes in acidic and basic solutions.

Q40. Draw a neat labelled diagram of an electric tester and explain how it works.

Case Study Based Questions

Case Study 1

Riya performed an experiment using turmeric paper. She added lemon juice to one paper strip and soap solution to another. She observed that one strip remained yellow while the other turned reddish-brown.

Q41. Which solution turned turmeric reddish-brown?

Q42. What does this colour change indicate?

Q43. Name one natural indicator.

Q44. Why did lemon juice not change the colour of turmeric paper?

Q45. Write one use of indicators in daily life.

Case Study 2

A student made a simple electric circuit using a cell, bulb, switch, and connecting wires. The bulb did not glow even after closing the switch. After checking carefully, the student found that one wire was broken internally.

Q46. Why did the bulb not glow?

Q47. Was the circuit open or closed?

Q48. Name two essential components required for a simple electric circuit.

Q49. What will happen if the broken wire is replaced with a proper conducting wire?

Q50. Draw the circuit diagram of a simple closed circuit.

Q51. Match the following:

Column A	Column B
(a) Lemon juice	(i) Conductor
(b) Copper	(ii) Base
(c) Soap solution	(iii) Acid
(d) Plastic	(iv) Insulator

Q52. Match the following:

Column A	Column B
(a) Turmeric	(i) Opens circuit
(b) Switch	(ii) Glowing part of bulb
(c) Filament	(iii) Indicator
(d) Cell	(iv) Source of electricity

SOCIAL SCIENCE

A. Multiple Choice Questions (MCQs)

1. Which of the following physical divisions is located in North-West India?

- a) The Eastern Ghats
- b) The Thar Desert
- c) The Coastal Plains
- d) The Sundarbans

2. India is frequently referred to as a "mini-continent" because of its:

- a) Small population
- b) Single unified language
- c) Immense physical and cultural diversity
- d) Lack of natural resources

3. Read the scenario below and answer the questions that follow :

Ladakh and Kerala represent two vastly different geographical regions in India. Ladakh is a cold desert located in the mountains of Jammu and Kashmir. Due to its harsh, freezing climate and lack of rain, very little agriculture is possible. People primarily herd sheep for wool and rely on melting snow for water. In contrast, Kerala is a southwestern coastal state. It receives heavy rainfall and enjoys a tropical climate. The fertile land allows for the cultivation of spices like pepper, cloves, and cardamom. Its long coastline and natural harbors have made it a major hub for international trade since ancient times.

- (a) How does the geography of Ladakh impact the livelihood and farming of its people?
- (b) What are the main agricultural products of Kerala, and why do they grow well there?
- (c) Although distinct, how do both regions benefit from their unique geographical locations?

4. Fill in the Blanks

- (a) The Himalayas act as a natural barrier, protecting the Indian subcontinent from the cold winds of _____.
- (b) The _____ desert is known as a cold desert in India.
- (c) The _____ plateau is highly rich in mineral deposits.

5. Rearrange the letters to form a correct word

- (a) SIAPNL _____
(Hint:- A flat, fertile area often used for agriculture)
- (b) GUMUAHK _____
- (c) INUKHATK _____
(Hint:- Style of house construction in western Himalayas)
- (d) MIHYLAASA _____

6. Very Short Answer type Questions.

- (a) What is the key difference between a monarchy and a democracy?
- (b) Define "Universal Adult Franchise." Why is it important in a democracy?
- (c) If a ruler believes they have "divine powers" to rule, how does it affect the citizens?

Do it by yourself.

7. While visiting Jaisalmer during summer, you realise how difficult it is to walk even short distance in the daytime. Explain how people in the Thar Desert have adapted their daily lifestyle to cope with extreme heat and water scarcity.

📖 Note: Collect information about your state, including its culture, language, traditions, food, and famous places. Write in minimum of 2500 words.

PUNJABI

Learning-Work:-ਪਾਠ-1 ਫੁੱਲ

ਪਾਠ-2 ਫੁਲਾਂ ਦੇ ਬੂਟੇ

#ਵਿਆਕਰਨ:- ਲਿੰਗ ਬਦਲੇ, ਵਚਨ ਬਦਲੇ, ਲੇਖ, ਪੱਤਰ

Writing- Work:-

1:-ਛੁੱਟੀਆ ਵਿੱਚ ਕਿਸ ਜਗ੍ਹਾ ਤੇ ਘੁੰਮਣ ਗਏ ਉਸ ਬਾਰੇ ਲਿਖੋ।

2:-ਭਾਰਤ ਦੇਸ਼ ਬਾਰੇ ਜਾਣਕਾਰੀ ਇੱਕਠੀ ਕਰਕੇ ਲਿਖੋ।

3:-ਆਪਣੇ-ਆਪਣੇ ਸਟੇਟ ਬਾਰੇ ਪੂਰੇ ਵਿਸਥਾਰ ਨਾਲ ਲਿਖੋ।

4:-ਪੰਜਾਬੀ ਵਰਨਮਾਲਾ ਦੇ 2-2 ਪੇਜ ਲਿਖੋ।

ਨੋਟ:-ਲਿਖਾਈ ਸਾਫ਼ ਅਤੇ ਸੋਹਣੀ ਲਿਖੋ।

COMPUTER

Dear Students,

You are required to prepare two informative charts neatly and creatively. Use colorful headings, diagrams, and examples to make your work attractive.

Instructions:

- ✓ Charts should be neat and well-labeled.
- ✓ Use chart paper of standard size.
- ✓ Mention your Name, Class, and Roll Number clearly.
- ✓ Submit the homework after the holidays.
- ✓ ✨ Be creative and make your charts informative and attractive!

Chart 1: Number System to include:

- Definition of Number System
- Types of Number Systems:
 - Decimal Number System
 - Binary Number System
 - Octal Number System
 - Hexadecimal Number System
- Base/Radix of each system
- Examples of each number system
- ✓ Simple conversion examples
- ✚ Add diagrams, tables, and colorful presentation.

Chart 2: Functions of MS Access to include:

- Introduction to MS Access
- Main Functions/Features of MS Access:
 - Creating Databases
 - Storing Data
 - Tables
 - Queries
 - Forms
 - Reports
 - Sorting and Filtering Data
 - Uses of MS Access in schools, offices, hospitals, etc.
- ✚ You may paste or draw pictures/icons related to databases and computers.

Write an essay on the importance of Yoga in your life, mentioning some yoga asanas that are beneficial for physical and mental health. In the essay, share your personal experience of celebrating International Yoga Day at home with your family and explain how yoga positively influenced your mind and body.

