

**SURAJ
SCHOOL
PATAUDI**

**SURAJ
EDUCATION**

7th

*Summer
Vacation*

HOLIDAY HOMEWORK

SESSION 2026-27

Make your vacation
meaningful, fun-filled
and full of learning!



Name : _____

Class & Section : _____

Roll No. : _____

EXPLORE

LEARN

ENJOY

GROW

READ

LEARN

GROW

Computer

Topic: Binary Numbers & Cybersecurity

Instructions: Answer all questions neatly in your notebook. Use diagrams/examples wherever required.

Binary Numbers

1. What are binary numbers? Why are they used in computers?
2. Write the binary number system and explain its base.
3. Convert the following binary numbers into decimal numbers :a)1010b)1101
4. Convert the following decimal numbers into binary numbers :a)7b)12
5. Differentiate between binary numbers and decimal numbers.

Cybersecurity

1. What is cyber security? Why is it important?
2. Write any five cyber safety rules for students.
3. What is a strong password? Write any four characteristics of a strong password.
4. Differentiate between a virus and malware.
5. Explain cyber bullying and mention ways to stay safe online.

Science
Worksheet -1

1. Multiple Choice Questions (MCQs)

- i. Which of the following is a synthetic (man-made) indicator?
 - a) Turmeric
 - b) Litmus
 - c) Phenolphthalein
 - d) China rose
- ii. What is the name of the safety device that breaks the circuit when too much current flows through it?
 - a) Battery
 - b) Electric Fuse
 - c) Switch
 - d) Connecting wire
- iii. When an acidic solution is mixed with a basic solution, they stay as they are, but the reaction produces:
 - a) Only Water
 - b) Only Salt
 - c) Salt and Water
 - d) An explosion
- iv. In an electric circuit, the direction of current is considered to be from:
 - a) Negative terminal to Positive terminal
 - b) Positive terminal to Negative terminal
 - c) The center to the edges
 - d) Any direction

2. Very Short Answer Questions

What is the taste of a Base?

- i. Name the effect of current used in an electric room heater.
- ii. What color does red litmus paper turn when dipped in a basic solution?
- iii. Write the symbol used to represent an electric battery combination of cells.

Long Answer Questions

- a. Define what a neutralization reaction is. Explain what happens to the temperature of the mixture during this reaction and name the two new substances formed at the end. Provide one real-life example of how we use neutralization to treat a common problem.

- b. **Magnetic Effect of Electric Current:**

Describe what an electromagnet is and how it is made. Explain two factors that can make an electromagnet stronger (e.g., changing the number of turns in the coil or the amount of current).

CASE STUDY

Case Study: The Science Lab Discovery

In a school science lab, a teacher placed three items on a table: an Iron Nail, a piece of Coal (Carbon), and a Copper Wire.

The teacher asked the students to observe them. They noticed that the iron nail and copper wire were shiny and did not break when hit with a hammer. Instead, they flattened into thin sheets.

However, when the teacher hit the piece of coal, it broke into a powdery mass. Later, the teacher showed that the copper wire could be used to light up a bulb in a circuit, but the coal could not

Questions:

1. Property of Shaping:

The iron nail flattened into a sheet instead of breaking. What is this property of metals called?

- (a) Ductility
- (b) Malleability
- (c) Sonorous
- (d) Lustre

2. Conductors and Insulators:

Why was the copper wire able to light up the bulb, while the coal was not?

3. Physical Appearance:

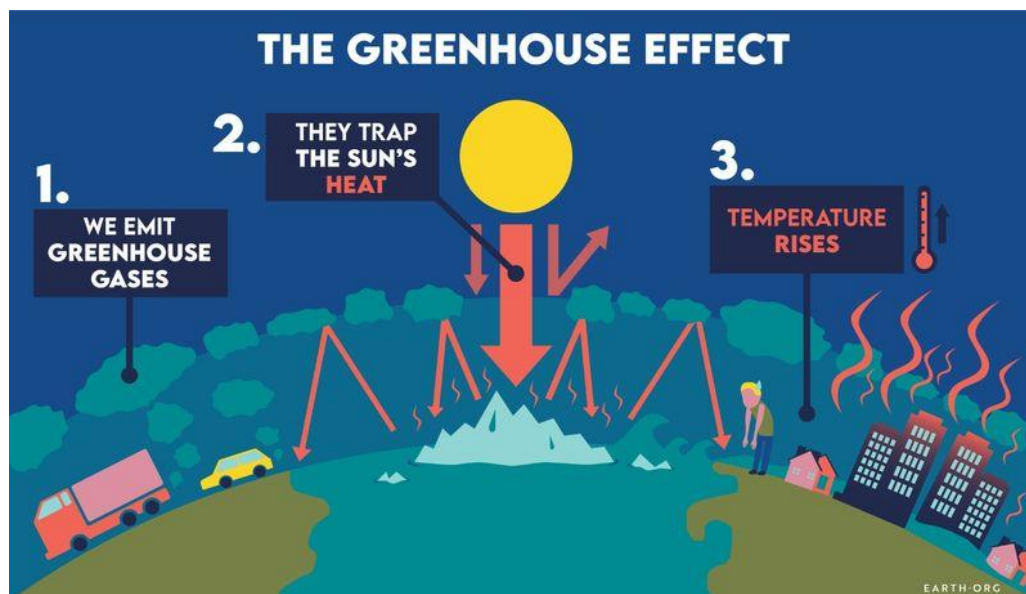
Based on the paragraph, how can you tell the difference between a metal and a non-metal just by looking at their surface?

4. True or False:

"Non-metals like coal are strong and can be used to make heavy bridge structures."
(State if this is True or False and give one simple reason).

PROJECT

i, Make a 3D model on the topic "GLOBAL WARMING or GREEN HOUSE EFFECT". (Roll no. 1 to 7)



ii, Make a 3D model on "PHOTOSYNTHESIS" (Roll no. 8 to 14)

A diagram illustrating the water cycle. It features a landscape with mountains, trees, and a body of water. The cycle is represented by four stages with red arrows indicating the flow: **Evaporation** (water rising from the lake and ground), **Condensation** (water vapor forming clouds), **Precipitation** (rain falling from clouds), and **Collection** (water flowing into the lake). A rainbow is also visible in the background.

Write the word "BLUE" with a pen on a thin sheet of paper. Read the word on the sheet while standing in front of a plane mirror. Observe carefully and answer the following questions :-

- How the word "BLUE" appears in the mirror?
- Which characteristic of plane mirror is responsible for the above observation?
- Why the word "AMBULANCE" is written as "ɹ ɹǝʇɹɐꞤ" in ambulance van?

Social studies

Map Work

1. Label and locate Indian states, union territories, and their capitals on an outline map of India.
2. Mark major deserts, water bodies, or neighboring countries.
3. Creative Projects & Models: Create a 3D model/chart showing the interior of the Earth (crust, mantle, and core).
4. Prepare a travel brochure featuring your favorite Indian tourist destination.
5. Make a project on 19th-century women authors or famous historical personalities
6. Draft a project on the "Cold Desert of India" or local historical places.

Worksheet-1

Fill in the Blanks

1. The wordJanapad.....means 'land where theset foot'.
2. There were..... Maha jan pads in ancient India around 600 BCE.
3. The capital of Magadha was first Rajagriha, later shifted to
4. andwere the 2 types of Mahajanapads based on government.
5. Ganasanghas..... were ruled by a group of people, not a single

True or False. Correct the false ones

1. Janapadas were large kingdoms with powerful kings.
2. Vajji was a _gana-sangha_ with its capital at Vaishali.
3. Iron tools helped Mahajanapads clear forests for farming.
4. All Mahajanapads were located in South India.

Match the Following

Column A –

Mahajanapad

1. Magadha
2. Kosala.
3. Gandhara
4. Vajji.

Column B –

Feature

- a. Capital at Taxila, famous for learning
- b. Had both monarchy and *gana-sangha*
- c. Capital at Shravasti, ruled by Prasenjit
- d. Most powerful, had iron mines + rive

Short Answer Questions

1. Write 2 differences between a Janapada and a Mahajanapad.
2. Name 2 reasons why Magadha became the most powerful Mahajanapad.
3. What were punch-marked coins? What were they made of?

Map Work

On an outline map of India provided:

1. Mark and label any 4 Mahajanapads*: Magadha, Kosala, Avanti, Gandhara.
2. Mark the river* that helped Magadha become strong: Ganga.
3. Mark 1 _gana-sangha*_ : Vajji.

Worksheet-2

Fill in the Blanks

1. The first major empire in ancient India was the _____ Empire founded by Chandragupta Maurya.
2. Chandragupta Maurya was guided by his teacher _____
3. Ashoka fought the Kalinga war in _____ BCE.
4. The capital of the Maurya Empire was _____.
5. Ashoka's _dhamma_ was inspired by the teachings of _____.

B. True or False. Correct the false ones

1. The Mauryan Empire was smaller than the Mahajanapads.
2. Ashoka sent messengers to spread dhamma to Sri Lanka and West Asia.
3. The Mauryan army had no elephants.
4. Megasthenes was a Greek ambassador who wrote Indica.

C. Match the Following [1 x 4 = 4 marks]

Column A

1. Chandragupta Maurya.
2. Bindusara.
3. Ashoka
4. Chanakya

Column B

- a. Grandson, adopted *dhamma*
- b. Defeated the Nandas
- c. Son of Chandragupta
- d. Wrote *Arthashastra*

D. Short Answer Questions

1. Give 2 reasons why Magadha was able to grow from a Mahajanapad into an empire.
2. What were 2 changes Ashoka made after the Kalinga war?
3. Name 2 sources that tell us about the Mauryan Empire.

E. Map Work

On an outline map of India provided:

1. Shade the Mauryan Empire at its largest extent under Ashoka.
2. Mark and label: Pataliputra, Taxila, Ujjain, Kalinga.
3. Mark 2 countries where Ashoka sent _dhamma_ messengers: Sri Lanka, Myanmar.

F. Think and Write

Ashoka's edicts were written on rocks and pillars so people could read them.

G. Learn chapter 3 and 4 complete

Maths

Multiple choice questions

- The smallest integer is zero.
a) True b) False
- 15 is greater than -20.
a) True b) False
- Zero is less than any negative integer.
a) True b) False
- The sum of a positive integer and negative integer is always a negative integer.
a) True b) False
- The sum of two negative integers is a negative integer.
a) True b) False
- Which pair of integers sum is zero.
a) -5 and -5 b) 4 and -5
c) -8 and 8 d) None of these
- Zero is greater than every negative integer.
a) True b) False
- Zero has no predecessor in integers.
a) True b) False
- Zero is the successor of -1 in integers.
a) True b) False
- 1 is predecessor of -2.
a) True b) False
- $25 + (-12) = \underline{\hspace{2cm}}$.
a) -13 b) -12
c) 13 d) 12
- $(-48) + (-20) = \underline{\hspace{2cm}}$.
a) 68 b) 58
c) -28 d) -68
- Find the sum of -500 and 478.
a) 22 b) -22
c) 12 d) None of these
- $\underline{\hspace{2cm}}$ is the additive inverse of -85.
a) 0 b) 85
c) -85 d) None of these
- Additive inverse of zero is $\underline{\hspace{2cm}}$.
a) 0 b) 1
c) -1 d) None of these
- $\{-23 - (-34)\} + \{-15 + (-25)\} = \underline{\hspace{2cm}}$.
a) 11 b) 40
c) 29 d) -29
- $(-23) + \underline{\hspace{2cm}} = 45$.
a) 86 b) 68
c) 56 d) -68
- If $a = -10, b = -12$ and $c = 7$, then $a + b - c = \underline{\hspace{2cm}}$.
a) -29 b) -22
c) -15 d) None of these
- $(-56) + (\underline{\hspace{2cm}}) = (-47) + (-56)$.

a)47
c)56

b)-47
d)-56

20. The difference of an integer 'a' and (-22) is 7. Find the value of 'a'.

a)15
c)22

b)17
d)-15

Short answer type questions

21. If 25 liters of cloth cost rupees 1575, how many meter so fit can be bought for Rs. 2016?
22. If 48 boxes contain 6000 pens , how many such boxes will be needed for 1875 pens?
23. A car can cover a distance of 357 km on 42 liters of petrol. How far can it travel on 12 liters of petrol ?

Long answer type questions

24. A train covers a distance of 51 km in 45 minutes. How long will it take to cover 221 km?
25. If 48 men can dig a trench in 14 days, how long will 28 men take to dig a similar trench ?
26. 16 men can reap a field in 30 days. How many men must been engaged to reap the same field in 24 days ?

Hot answers type questions :

27. 40 men can finish a piece of work in 26 days. How many men will be needed to finish it in 16 days ?
28. 45 cows can graze a field in 13 days. How many cows will graze the same field in 9 days ?

Creative work

1. Make a scrap book showing how math is used in everyday life (shopping, time management, construction, etc. Use pictures, cut-outs, and your own examples.
2. Project file work:
*Google the names of Mathematicians who have got the noble prize. Write the name of any 5 Mathematicians from the list and also mention the work for which they have got the noble prize.
*Download and watch the movie "The Man who knew infinity ". Write the 10 things that you liked the most about the movie. Write two ideas which inspired you to study Mathematics.
3. Notebook work:
 1. Revise Test paper-3 and Test paper- 4 in holiday homework notebook.
 2. Write tables five times from 2 to 20 and learn them also.

हिंदी

प्रश्न 1 प्रतिदिन सुलेख लिखें।

प्रश्न 2 संधि व उसके भेदों को चार्ट पर दर्शाइए।

प्रश्न 3 अपने प्रिय लेखक का जीवन परिचय चित्र सहित दीजिए।

प्रश्न 4 जल संरक्षण संबंधी एक पोस्टर तैयार करें।

संधि पर वर्कशीट

रिक्त स्थान भरिए

1. दो वर्णों के मेल को _____ कहते हैं।
2. संधि के मुख्य _____ प्रकार होते हैं।
3. स्वर और स्वर के मेल से _____ संधि बनती है।
4. व्यंजन और व्यंजन के मेल से _____ संधि बनती है।

सही या गलत लिखिए

1. संधि में शब्दों का मेल होता है। _____
2. संधि के केवल दो प्रकार होते हैं। _____
3. “विद्यालय” संधि का उदाहरण है। _____
4. विसर्ग संधि में “ः” का प्रयोग होता है। _____

मिलान कीजिए

स्तम्भ A

1. स्वर संधि ।
2. व्यंजन संधि ।
3. विसर्ग संधि ।

स्तम्भ B

- () व्यंजन का मेल
- () स्वर का मेल
- () “ः” का परिवर्तन

संधि कीजिए

1. विद्या + आलय = _____
2. हिम + आलय = _____
3. सत् + जन = _____
4. दुः + ख = _____

संधिविच्छेद कीजिए-

1. विद्यालय = _____ + _____
2. हिमालय = _____ + _____
3. सज्जन = _____ + _____
4. दुःख = _____ + _____

लघु उत्तरीय प्रश्न

1. संधि किसे कहते हैं?

2. संधि के प्रकार लिखिए।

3. स्वर संधि का एक उदाहरण लिखिए।

“कोरोना” पाठ पर वर्कशीट

रिक्त स्थान भरिए

1. कोरोना एक _____ बीमारी है।
2. कोरोना वायरस सबसे पहले _____ में पाया गया।
3. कोरोना से बचाव के लिए हमें _____ पहनना चाहिए।
4. हाथों को बार-बार _____ चाहिए।

सही या गलत लिखिए

1. कोरोना एक संक्रामक रोग है। _____
2. मास्क पहनना आवश्यक नहीं है। _____
3. स्वच्छता से कोरोना से बचाव किया जा सकता है। _____
4. कोरोना केवल बच्चों को होता है। _____

एक शब्द एक वाक्य में उत्तर दीजिए /

1. कोरोना किस प्रकार की बीमारी है?
उत्तर _____ :
2. कोरोना से बचने के दो उपाय लिखिए।
उत्तर _____ :
3. हमें छींकते समय क्या करना चाहिए?
उत्तर _____ :

लघु उत्तरीय प्रश्न

1. कोरोना के मुख्य लक्षण लिखिए।

2. कोरोना महामारी के समय लोगों ने क्या-क्या सावधानियाँ बरतीं?

3. हमें स्वास्थ्य के प्रति जागरूक क्यों रहना चाहिए?

विचारात्मक प्रश्न

यदि आपके आसपास कोई बीमार व्यक्ति हो ?तो आप उसकी सहायता कैसे करेंगे ,

English

A. Identify the underlined word and write its type (Noun / Pronoun / Verb / Adjective)

1. The beautiful garden was full of flowers. _____
2. They are going to the museum tomorrow. _____
3. My uncle drives a truck. _____
4. The baby laughed loudly. _____
5. We saw a clever fox in the forest. _____

B. Circle the nouns and underline the adjectives

1. The tall boy climbed the old tree.
2. My little sister has curly hair.
3. The hungry tiger ran into the dark jungle.
4. We visited a famous museum yesterday.
5. The blue kite flew high in the sky.

C. Fill in the blanks with suitable pronouns

1. Meera is absent because _____ is sick.
2. Rahul and I are friends. _____ play cricket together.
3. My parents bought a car. _____ is red.
4. The dog is barking because _____ is hungry.
5. Tina and Riya are sisters. _____ study in the same school.

D. Underline the verbs in the following sentences.

1. Birds fly in the sky.
2. The students completed their homework.
3. My mother cooks delicious food.
4. The baby slept peacefully.
5. We watched a movie last night.

E. Choose the correct adjective from the box
(big, honest, sweet, angry, bright)

1. The sun is very _____ today.
2. Rohan is an _____ boy.
3. The baby has a _____ smile.
4. The lion looked _____ at the hunter.
5. We saw a _____ elephant in the zoo.

F. Rewrite the sentences by replacing the nouns with suitable pronouns.

1. Anita is reading a storybook.
2. My friends are playing football.
3. Raj and I went to the market.
4. The dog is sleeping near the gate.

5. The teachers checked the notebooks.

G. Identify whether the highlighted word is a Noun, Verb, Pronoun, or Adjective

1. The smart student answered quickly. _____
2. He opened the window. _____
3. We visited the beach yesterday. _____
4. The baby cried loudly. _____
5. She wore a beautiful dress. _____

H. Make sentences using the following words

1. Brave
2. Teacher
3. Quickly
4. Mountain

I. Read the paragraph carefully and answer the questions

“Arjun and his sister visited a large aquarium on Sunday. They saw colorful fish, turtles, and sharks. The friendly guide showed them many sea animals. Everyone enjoyed the trip.”

1. Write any 3 nouns from the paragraph:
2. Write 2 adjectives:
3. Write 2 pronouns:
4. Write 1 verb:
5. Write 1 proper noun:

J. Prepare a travel brochure featuring your favorite tourist destination in India. Include relevant pictures and interesting factors.

K. Write paragraph in your fair notebook given below

- 1 . Benefits of morning walk and
2. He Missile Man of India : APJ. Abdul Kalam.

L. Read the newspaper daily to better reading .

M. Learn and recite any English poem of your choice after the holidays.

N. Make as many words as you can from the word 'Dumbfounded'.

O. Create a new word pocket in your notebook, along with their meanings, synonyms and antonyms.

P. Learn and complete Ch-1 to 3.

संस्कृत

1 से 50 तक गिनती संस्कृत में लिखे व याद करें।
कोई तीन श्लोक संस्कृत में लिखे व याद करें।

‘राम’ और ‘रमा’ शब्द रूप याद करें।

1. शब्दार्थ लिखिए

- विद्यालयः
- शिक्षकः
- छात्रः
- उदयानम्
- नदी
- पतनः
- मित्रम्
- पुस्तकालयः
- प्रातःकालः
- भोजनम्

2.. संस्कृत में अनुवाद कीजिये ।

1. मैं विद्यालय जाता हू।
2. राम खेलता है।
3. सीता पुस्तक पढ़ती है।
4. हम प्रतिदिन पढ़ते हैं।
5. सूर्य पर्व दिशा में उगता है

3. रिक्त स्थान परयत

1. अहंपठामि।
2. बालकःउदयान
3. सीता जलं.....
4. गजः तनं.....
5. छात्राः विद्यालय.....

4. संस्कृत में पांच वाक्य लिखिए ।

5. धातुरूप लिखिए (लट् लकार)

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