

CLASS - VI
SUMMER HOLIDAY HOMEWORK
SUBJECT – AI

SECTION A: MULTIPLE CHOICE QUESTIONS (MCQs)

1. AI stands for:
 - a) Automatic Intelligence
 - b) Artificial Intelligence
 - c) Applied Internet
 - d) Advanced Information
2. Which is an example of AI?
 - a) Fan
 - b) Calculator
 - c) Self-driving car
 - d) Bulb
3. AI systems mainly work using:
 - a) Water
 - b) Data
 - c) Fire
 - d) Paper
4. Which type of AI is commonly used today?
 - a) Super AI
 - b) Narrow AI
 - c) General AI
 - d) Future AI
5. Automation systems usually:
 - a) Learn and adapt
 - b) Think like humans
 - c) Follow fixed instructions
 - d) Make decisions independently
6. The main goal of Artificial Intelligence is to:
 - a) Replace all machines
 - b) Simulate human intelligence in machines
 - c) Stop human work
 - d) Print documents
7. Automation systems are different from AI because they:
 - a) Learn from data
 - b) Think like humans
 - c) Follow pre-defined rules
 - d) Can make decisions independently

8. AI helps in recommendation systems like:
 - a) Television signals
 - b) YouTube suggestions
 - c) Radio waves
 - d) Paper books
9. Self-driving cars mainly use AI for:
 - a) Painting roads
 - b) Navigation and decision-making
 - c) Printing maps
 - d) Writing books
10. AI is becoming popular because it:
 - a) Slows down work
 - b) Replaces electricity
 - c) Solves problems efficiently
 - d) Removes data usage

SECTION B: TRUE OR FALSE

Write T for True and F for False.

1. AI stands for Artificial Intelligence. _____
2. AI cannot learn from data. _____
3. Voice assistants like Siri use AI. _____
4. Automation systems can think like humans. _____
5. AI is used in smartphones. _____
6. AI helps in making predictions. _____
7. Automation follows fixed instructions. _____
8. AI is not used in real life. _____
9. AI can improve over time. _____
10. Self-driving cars use AI. _____

SECTION C: SHORT ANSWER QUESTIONS

1. What is Artificial Intelligence?
2. Write two differences between AI and Automation.
3. Name any three uses of AI in daily life.
4. What is Narrow AI? Give an example.
5. How does AI improve over time?

SECTION D: UNSEEN PASSAGE

Read the passage and answer the questions.

Passage:

Artificial Intelligence (AI) is a technology that allows machines to perform tasks that usually require human intelligence. It works by analyzing large amounts of data and identifying patterns. AI is used in many areas such as healthcare, education, transportation, and entertainment. Most AI systems today are Narrow AI, which means they are designed for specific tasks only. AI systems can improve their performance by learning from new data.

Questions:

1. What is Artificial Intelligence?
2. How does AI work?
3. Write two areas where AI is used.
4. What is Narrow AI?
5. How does AI improve its performance?

SECTION E: ASSERTION-REASON

Options:

- a) Both A and R are true and R is correct explanation of A
- b) Both A and R are true but R is not correct explanation
- c) A is true but R is false
- d) A is false but R is true

1. A: AI can learn from data.
R: AI uses machines to process information.
Answer: _____

2. A: Automation is same as AI.
R: Automation follows fixed rules.
Answer: _____

3. A: AI is used in mobile phones.

R: Voice assistants use AI.

Answer: _____

4. A: AI does not need data.

R: AI works without information.

Answer: _____

5. Assertion (A): Automation is smarter than AI.

Reason (R): Automation can adapt and learn from new data.

Answer: _____

SECTION F: Fill in the Blanks

1. AI stands for Artificial _____.

2. AI can _____ from data and improve over time.

3. Automation follows fixed _____.

4. Voice assistants like Siri and Alexa use _____.

5. AI helps in making _____ and predictions.

6. Self-driving cars use _____ to understand the environment.

7. YouTube and Netflix recommendations use _____.

8. AI systems work using _____ and algorithms.

Holidays homework

Class 6.

Subject English.

Q-1 Listening and speaking. - Watch the movie I am Kalam and learn some dialogues to speak up in the class room after Vacation.

Q-2 Reading -Read the lesson Rama to the Rescue, the unlikely best friend,And the poem A Friends prayer.

Q-3 writing -Write some new words from Unit second.Write some 20 synonyms.20 opposite words and 20 one words substitution.

For example one who loves his country- Patriot.

Q-4 Make a working project On anyone topic.

Opposite bird

or

action bird

Or

puppet related to your lesson
(.Raven and the Fox.)

पीएम श्री केन्द्रीय विद्यालय - टीकमगढ़

शीष्मकालीन गृहकार्य - सत्र - 2026-27

कक्षा - 6

विषय - हिन्दी (मल्लहार)

- प्रश्न-1- राष्ट्रगीत को लिखिए, भावार्थ लिखिए एवं कठस्थ (साद) कीजिए।
- प्रश्न-2- आपको कौन से खेल और कौन से खिलाड़ी अच्छे लगते हैं? क्यों लगते हैं बताइए।
- प्रश्न-3- 'पहली बूँद' कविता को सचित्र (रंगीन चित्रों के साथ) सुन्दर लेख के साथ पोस्टर पर बनाइए।
- प्रश्न-4- रंगीन कागज (A-4 आकार) से सुन्दर तिरंगा झण्डा एवं छता बनाकर लाइए।
- प्रश्न-5- 10 पेज की सुलेख (सुन्दर लेख) लिखिए।
- प्रश्न-6- पठित (पढ़े हुए) पाठों की पुनरावृत्ति कीजिए।

विषय अध्यापक
किशन लाल
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PM SHRI KENDRIYA VIDYALAYA TIKAMGARH
HOLIDAY HOME WORK CHAPTER 01
PATTERNS IN MATHEMATICS

SUBJECT: MATHEMATICS

CLASS : VI

MAX. MARKS : 40

DURATION : 1½ hrs

General Instructions:

- (i). All questions are compulsory.
- (ii). This question paper contains 20 questions divided into five Sections A, B, C, D and E.
- (iii). **Section A** comprises of 10 MCQs of 1 mark each. **Section B** comprises of 4 questions of 2 marks each. **Section C** comprises of 3 questions of 3 marks each. **Section D** comprises of 1 question of 5 marks each and **Section E** comprises of 2 Case Study Based Questions of 4 marks each.
- (iv). There is no overall choice.
- (v). **Use of Calculators is not permitted**

SECTION – A

Questions 1 to 10 carry 1 mark each.

1. What comes next in the pattern: 2, 8, 18, 32, 50, ____?
(a) 60 (b) 70 (c) 72 (d) 80
2. If a pattern starts as ♦, ♦♦, ♦♦♦, ♦♦♦♦, how many symbols will the next step have?
(a) 4 (b) 5 (c) 6 (d) 8
3. Find the missing term in: 1, 4, 9, 16, ____, 36.
(a) 20 (b) 24 (c) 25 (d) 30
4. Total sides in 15 hexagons?
(a) 75 (b) 80 (c) 85 (d) 90
5. Pattern rule in 64, 32, 16, 8, ____?
(a) Subtract 8 (b) Divide by 4 (c) Divide by 2 (d) Subtract 16
6. In a pattern, each term is the previous term multiplied by 5. First term is 2. Find 4th term.
(a) 50 (b) 100 (c) 125 (d) 250
7. Find the next number: 3, 7, 15, 31, ____
(a) 47 (b) 53 (c) 63 (d) 65
8. A pattern starts with 100 and halves each time. What is 4th term?
(a) 20 (b) 25 (c) 12.5 (d) 10

In the following questions 9 and 10, a statement of assertion (A) is followed by a statement of Reason (R). Choose the correct answer out of the following choices.

- (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.
9. **Assertion (A):** A pattern of 3, 6, 12, 24, ... has constant differences between terms.
Reason (R): Multiplying by 2 at each step does not create constant differences.
 10. **Assertion (A):** A pattern with 1, 4, 9, 16 is a multiplication pattern.
Reason (R): Squaring is a form of multiplication.

SECTION – B

Questions 11 to 14 carry 2 marks each.

11. Complete and explain: 5000, 2500, 1250, _____, _____.
12. Pattern: ♦ ● ♦♦ ●● ♦♦♦. Predict next two terms with explanation.
13. If 20 pentagons are arranged, find total sides. Explain.
14. Fill missing numbers: 4, 12, 36, _____, 324, _____.

SECTION – C

Questions 15 to 17 carry 3 marks each.

15. A tile pattern uses 4 black tiles and 5 white tiles in repetition.
If 270 tiles are used, how many black tiles and white tiles were used?
16. Multiply by 2, subtract 2. Starting at 6. Find first 6 terms.
17. Multiply by 3, subtract 1 pattern, starting from 2.

SECTION – D

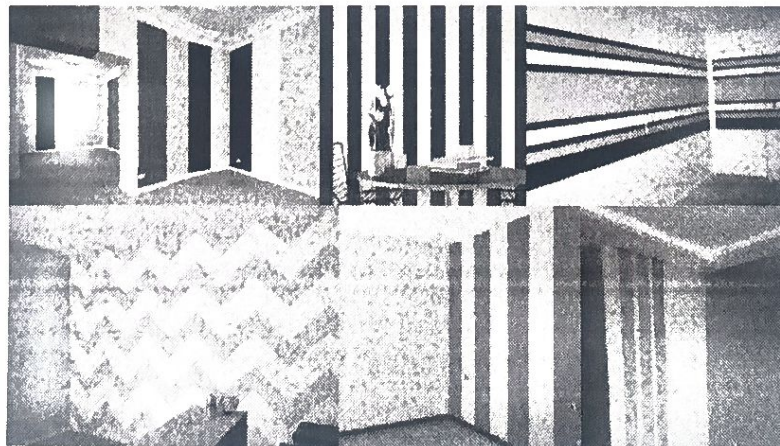
Questions 18 carry 5 marks each.

18. A school builds a staircase using blocks:
1st step: 2 blocks, 2nd step: 6 blocks, 3rd step: 12 blocks
4th step: ? 5th step: ?
(a) Identify pattern rule.
(b) Find number of blocks in 4th and 5th steps.
(c) Find total blocks in first 5 steps.
(d) Explain how recognizing this pattern is helpful in planning.
(e) Write pattern in words.

SECTION – E (Case Study Based Questions)

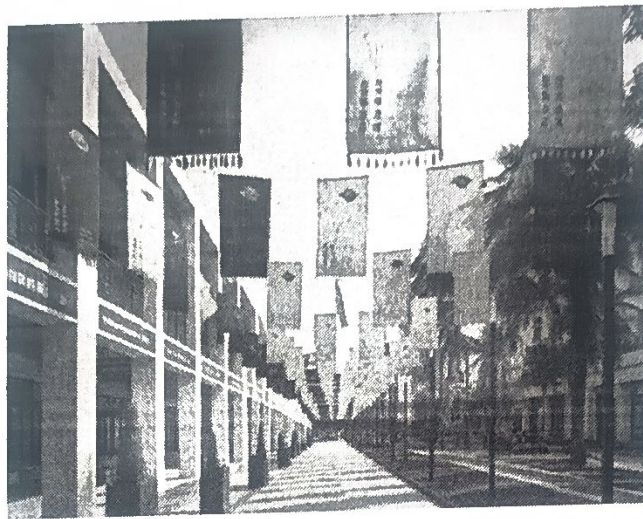
Questions 19 to 20 carry 4 marks each.

19. In a newly constructed hotel, a painter was assigned to decorate its 96 walls using a specific stripe pattern for aesthetic appeal. Each wall was to be painted in a repeating sequence of 2 blue stripes followed by 4 red stripes. The hotel owner wanted the pattern consistent throughout the building, making accurate pattern calculation essential for error-free decoration.



- 12187
- (a) How many blue stripes will be needed?
 - (b) How many red stripes will be needed?
 - (c) Which stripe color will be at 95th position?
 - (d) Why is pattern understanding important in such work?

20. During the annual school exhibition, coloured banners were arranged along the main walkway in a repeating sequence of **5 blue banners** followed by **3 yellow banners**. A total of 128 banners were used to decorate the area. Accurate pattern planning was important to maintain the sequence and aesthetic appeal of the event without any mismatch or confusion.



- (a) How many blue banners were used in total?
 - (b) How many yellow banners were used in total?
 - (c) What colour banner will be at the 125th position?
 - (d) Why is pattern planning important in such decorations?
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PM SHRI KENDRIYA VIDYALAYA TIKAMGARH
CHAPTER 02 LINES AND ANGLES
HOLIDAY HOMEWORK

SUBJECT: MATHEMATICS
CLASS : VI

MAX. MARKS : 40
DURATION : $1\frac{1}{2}$ hrs

General Instructions:

- (i). All questions are compulsory.
- (ii). This question paper contains 20 questions divided into five Sections A, B, C, D and E.
- (iii). **Section A** comprises of 10 MCQs of 1 mark each. **Section B** comprises of 4 questions of 2 marks each. **Section C** comprises of 3 questions of 3 marks each. **Section D** comprises of 1 question of 5 marks each and **Section E** comprises of 2 Case Study Based Questions of 4 marks each.
- (iv). There is no overall choice.
- (v). **Use of Calculators is not permitted**

SECTION – A

Questions 1 to 10 carry 1 mark each.

1. A straight angle is equal to the sum of:
(a) two right angles (b) two acute angles
(c) one obtuse and one acute angle (d) two obtuse angles
2. The vertex of an angle is the point:
(a) between two lines (b) where two rays meet
(c) where two segments cross (d) at the center of the circle
3. If $\angle ABC = 90^\circ$ and $\angle CBD = 90^\circ$, then $\angle ABD$ is:
(a) 90° (b) 180° (c) 45° (d) 135°
4. Which angle lies between 90° and 180° ?
(a) 60° (b) 170° (c) 30° (d) 85°
5. The sum of angles in a triangle is always:
(a) 90° (b) 180° (c) 270° (d) 360°
6. How many angles are formed when two rays meet at a point and a third ray is drawn between them?
(a) one (b) two (c) three (d) four
7. If $\angle A = 60^\circ$, $\angle B = 70^\circ$, $\angle C = 50^\circ$, then triangle ABC is:
(a) a right-angled triangle (b) an acute-angled triangle
(c) an obtuse-angled triangle (d) a scalene triangle
8. Which of the following is the best example of an angle in real life?
(a) closed book edge (b) pencil tip
(c) open door (d) spoon curve

In the following questions 9 and 10, a statement of assertion (A) is followed by a statement of Reason (R). Choose the correct answer out of the following choices.

- (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.

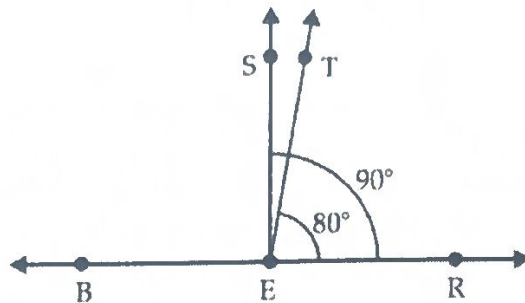
9. Assertion (A): A reflex angle is always greater than a straight angle.
Reason (R): A reflex angle is greater than 180° but less than 360° .

10. Assertion (A): An acute angle can never be greater than a right angle.
Reason (R): Acute angles are always less than 90° .

SECTION – B

Questions 11 to 14 carry 2 marks each.

11. In this figure, $\angle TER = 80^\circ$. What is the measure of $\angle BET$? What is the measure of $\angle SET$?



12. Draw two intersecting lines and label all the angles formed. Name and classify them.
13. Write the steps to draw a 75° angle using a protractor. Name the vertex and arms.
14. A triangle has one right angle and another angle of 30° . Find the third angle. What type of triangle is it?

SECTION – C

Questions 15 to 17 carry 3 marks each.

15. You are given a straight angle $\angle AOB$.
(a) draw it and divide into two right angles
(b) then divide each right angle into two equal parts
(c) how many angles of 45° are formed?
16. Draw angles with the following degree measures: (a) 140° , (b) 82°
17. Draw the letter 'M' such that the angles on the sides are 40° each and the angle in the middle is

SECTION – D

Questions 18 carry 5 marks each.

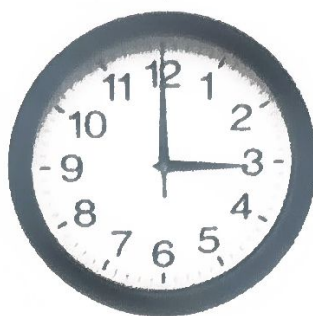
18. Riya drew a triangle with angles 90° , 45° , and 45° .
(a) identify the type of triangle
(b) draw it with proper markings
(c) draw perpendicular lines from each vertex to the opposite side
(d) how many right angles are formed in the entire construction?
(e) explain how this triangle follows the angle sum property

SECTION – E (Case Study Based Questions)

Questions 19 to 20 carry 4 marks each.

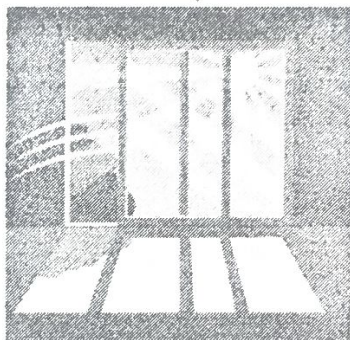
19. Kabir organized a fun classroom challenge during the mathematics exhibition where students had to guess the angles formed between the hour and minute hands of a clock at different times. He asked everyone to calculate the exact angle at specific hours without using a protractor.

For example, at 2:00 PM, the angle formed is x° , and at 4:00 PM, the angle formed is y° .



- (a) find the values of x and y
- (b) which angle is greater?
- (c) are both angles acute, right, or obtuse?
- (d) draw and label both clock faces showing the angles

20. In a school science lab, students were conducting an experiment related to angles and light. To observe the effect of sunlight, a window shade was initially pulled open, forming an angle of 95° with the wall. As the intensity of light needed to be increased, the shade was pulled further, creating a larger obtuse angle of 185° . This setup helped students understand how angles can influence light entry.



- (a) what types of angles are these?
- (b) how many degrees was the increase?
- (c) draw both positions of the shade
- (d) what type of angle will it be if the shade turns 270° ?

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पी० रुम० श्री केन्द्रीय विद्यालय, टीकमगढ़

कक्षा - 6 , विषय - संस्कृतम्

ग्रीष्मकालीन अवकाश गृहकार्य

- 1) पठ्, लिख्, हस् धातुं लिखित्वा स्मरणं कुर्वन्तु।
- 2) बालकः बालिका च शब्दरूपं लिखित्वा स्मरणं कुर्वन्तु।
- 3) संस्कृतस्य प्रतिज्ञा प्रार्थना च स्मरणं कुर्वन्तु।
- 4) शुणित्वाक्षरं लिखतु -

क = कं कां किं - - - - -

ख = खं खां किं - - - - -

ग = गं गां गिं - - - - -

- 5) र्वदैनिक जीवने प्रयुज्यमानान् न्यूनातिन्यूनं 15 शब्दान् संस्कृते लिखत ।

_____ इति _____

Science Summer Assignment

Class - 6th

- Q1. Observe different plants and animals around you on a nature walk.
- Q2. Make a table of 5 plants and 5 animals with name, habitat and features.
- Q3. Make a poster on the chart paper
Topic - Biodiversity of plants and animals.
- Q4. Write 2 small experiments or observations you did at home.
- Q5. Answer the following question:
 - (i) What is science?
 - (ii) Write 3 uses of science in daily life.

(iii) How can we group plants and animals.

(iv) Difference between living and non-living things. (Any 5)

(v) Write 5 differences between terrestrial habitat and aquatic habitat.

SST Summer Assignments

Class VI

1. Find out what you have in the eight directions from your home or school.
2. Draw a rough map of your locality or your village, including your home, school and a few other important landmarks. Show the cardinal directions and use a few of the symbols to mark some important features.
3. How do you think understanding the past will help us understand the present world?
4. Write the history of your family (or village if you live in once), using sources of history at your disposal. Take help from your parents.
5. Write down and memorize all the main sources of History.