



Sainik School Bhubaneswar

Autumn Vacation Task

Class-VIII

Subject-Physics

1. Write safety measures to be followed during a cyclone.
2. Why is the filament of an electric bulb made of tungsten?
3. Why does wind blow from the sea towards land during the day?
4. Explain why roof tops of houses are blown away during a storm.
5. Why are cyclone shelters and weather forecasting important in coastal areas?
6. How is a cyclone different from a thunderstorm? Mention any three points.
7. Draw a neat labeled diagram of an electric circuit showing:
(a) Battery (b) Resistor (c) Ammeter (d) Switch
8. Write the working principle of an electric fuse. Why is it important in household wiring?
9. Explain the formation of a cyclone step by step with the help of a diagram. Also, list two precautionary measures to be taken before and after a cyclone.
10. Why do electric appliances with heating elements (like an iron or heater) not use copper wire for the element?

Project / Assignment Work (Any one)

- Prepare a **chart** on:
 - *Magnetic effect of current* (e.g., electromagnet, electric bell) **or**
 - *Cyclone and its effects.*
- Write a **short report** on “*Natural Disasters and Disaster Management in Odisha*”.

BIOLOGY

Chapter 2: The Invisible Living World – Beyond Our Naked Eye

Part A – Short Questions (Answer in 2–3 sentences each)

1. What are microorganisms? Give two examples.
2. Name any two useful microorganisms and their uses.
3. How are viruses different from bacteria?
4. Why are algae considered microorganisms?
5. Name one microorganism used in the production of antibiotics.
6. Write two ways by which microorganisms are harmful to humans.
7. What is fermentation? Which microorganism helps in this process?
8. How do microorganisms help in nitrogen fixation?
9. Define pathogen. Give one example.
10. Why are vaccines important?
11. Mention two diseases caused by viruses.
12. Which microorganism is used in making bread fluffy and soft?
13. How do microorganisms help in cleaning the environment?
14. Give two examples of food spoilage caused by microorganisms.
15. Write one difference between protozoa and fungi.

Part B – Project Work (Choose any one)

Project: “Microorganisms Around Us”

- Collect 5 samples (e.g., curd, bread, soil, water from pond, spoiled fruit).
- Observe changes in them over 5–7 days (smell, appearance, texture).
- Record observations in a table/chart with photos or drawings.
- Write a short note (1 page) on beneficial and harmful effects of the microorganisms you identified.

Submission format: Questions – neatly written in notebook.

Project – on chart paper / A4 sheet with illustrations.

AUTUMN VACATION TASK CLASS – 8
MATHEMATICS

(2025-26)

1. Find the smallest square number that is divisible by each of the numbers 8, 15 and 20.
2. A gardener has 1000 plants. He wants to plant these in such a way that the number of rows and the number of columns remain same. Find the minimum number of plants he needs more for this.
3. What is the smallest natural number by which 392 should be multiplied so that they become perfect cubes?
4. What is the smallest natural number by which 1536 should be divided so that they become perfect cubes?
5. Find the square root of each of the following numbers by the prime factorisation method. (a) 2916 (b) 6084
6. Find the smallest whole number for each of the following numbers by which it should be multiplied so as to get a perfect square number. (a) 768 (b) 2880
7. Find the smallest whole number for each of the following numbers by which it should be divided so as to get a perfect square number. (a) 6912 (b) 2925
8. Find the least number which must be subtracted from each of the following numbers to make it a perfect square. (a) 740 (b) 1535
9. Find the least number which must be added to each of the following numbers to make it a perfect square. (a) 708 (b) 1840
10. Find the square root of the following decimal numbers. (a) 51.84 (b) 31.36
11. Find the cube root of each of the following numbers by prime factorisation method.
(a) 2744 (b) 3375
12. Find the perfect square numbers between (i) 30 and 40 (ii) 50 and 60
13. Which of 123^2 , 77^2 , 82^2 , 161^2 , 109^2 would end with digit 1?
14. Which of the following numbers would have digit 6 at unit place.
(i) 19^2 (ii) 24^2 (iii) 26^2 (iv) 36^2 (v) 34^2
15. What will be the “one’s digit” in the square of the following numbers?
(i) 1234 (ii) 26387 (iii) 52698 (iv) 99880 (v) 21222 (vi) 9106
16. The square of which of the following numbers would be an odd number/an even number? Why?
(i) 727 (ii) 158 (iii) 269 (iv) 1980

17. What will be the number of zeros in the square of the following numbers?

- (i) 60 (ii) 400

18. How many natural numbers lie between 9^2 and 10^2 ? Between 11^2 and 12^2 ?

19. How many non square numbers lie between the following pairs of numbers

- (i) 100^2 and 101^2 (ii) 90^2 and 91^2 (iii) 1000^2 and 1001^2

20. Find whether each of the following numbers is a perfect square or not?

- (i) 121 (ii) 55 (iii) 81 (iv) 49 (v) 69

21. Express the following as the sum of two consecutive integers.

- (i) 21^2 (ii) 13^2 (iii) 11^2 (iv) 19^2

22. (i) Express 49 as the sum of 7 odd numbers.

23. (ii) Express 121 as the sum of 11 odd numbers.

24. How many numbers lie between squares of the following numbers?

- (i) 12 and 13 (ii) 25 and 26 (iii) 99 and 100

25. Find the square of the following numbers without actual multiplication.

- (i) 39 (ii) 42

26. Find the squares of the following numbers containing 5 in unit's place.

- (i) 15 (ii) 95 (iii) 105 (iv) 205

27. Write a Pythagorean triplet whose smallest member is 8.

28. Find a Pythagorean triplet in which one member is 12.

29. Write a Pythagorean triplet whose one member is.

- (i) 6 (ii) 14 (iii) 16 (iv) 18

30. By repeated subtraction of odd numbers starting from 1, find whether the following numbers are perfect squares or not? If the number is a perfect square then find its square root.

- (i) 121 (ii) 55 (iii) 36 (iv) 49 (v) 90

31. 7000000000 is equal to:

(a) 7×10^8

(b) 7×10^7

(c) 7×10^6

(d) 7×10^9

32. What is the value of $(2^2 + 3^2 + 4^2)^0$?

(a) 9

(b) 0

(c) 1

(d) 14

33. The multiplicative inverse of 7^{-2} is:

(a) 7^2

(b) 7

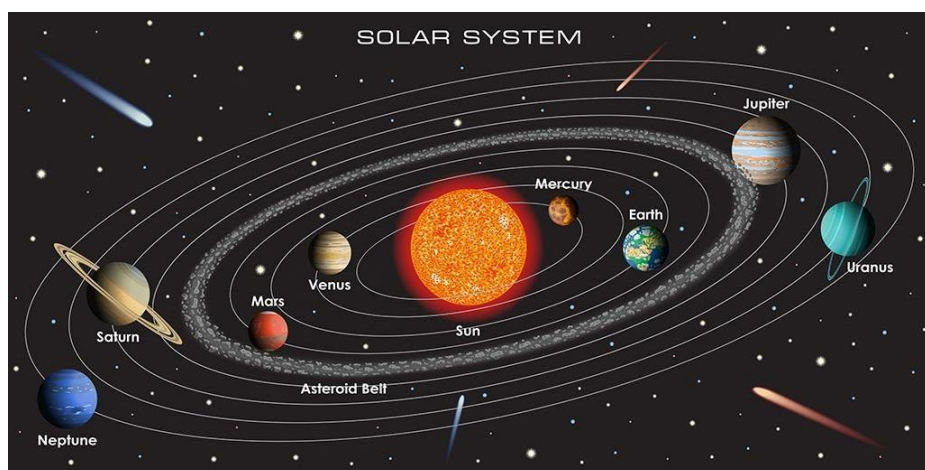
(c) $1/7^2$

(d) $1/7$

CASE BASED Question

Our solar system consists of our star, the Sun, and everything bound to it by gravity – the planets Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus, and Neptune; dwarf planets such as Pluto; dozens of moons; and millions of asteroids, comets, and meteoroids. Beyond our own solar system, we have discovered thousands of planetary systems orbiting other stars in the Milky Way. The distance of all the planets from the Sun in kilometers (km) is given in below table:

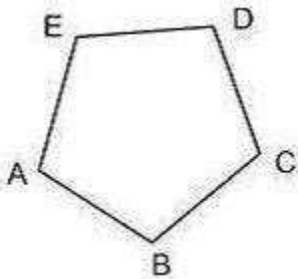
Planet	Distance from Sun (km)
Mercury	57,900,000
Venus	108,200,000
Earth	149,600,000
Mars	227,900,000
Jupiter	778,600,000
Saturn	1,433,500,000
Uranus	2,872,500,000
Neptune	4,495,100,000



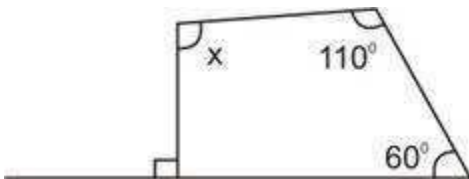
Based on the above situation, answer the following questions:

34. Write the distance of Mercury from the Sun in standard form.
(a) 5.79×10^6 (b) 5.79×10^7 (c) 5.79×10^8 (d) 5.79×10^9
35. Write the sum of the distances of Mercury and Venus from the Sun in standard form.
(a) 1.661×10^6 (b) 1.661×10^7 (c) 1.661×10^8 (d) 1.661×10^9
36. Write the difference of the distances of Earth and Venus from the Sun in standard form.
(a) 4.14×10^7 (b) 4.14×10^6 (c) 4.14×10^8 (d) 4.14×10^9
37. Find the mean distance of Earth and Venus from the Sun in standard form.
(a) 1.289×10^6 (b) 1.289×10^7 (c) 1.289×10^9 (d) 1.289×10^8
38. Find the value of x for which $2^x \div 2^{-4} = 4^5$
39. Name the regular polygon with 8 sides.

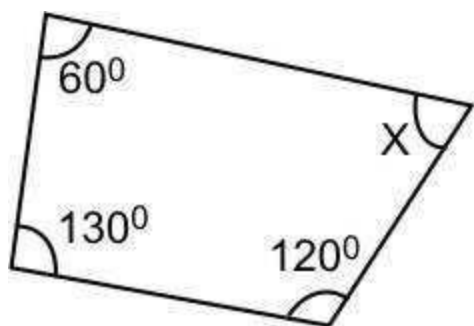
40. Find the number of diagonals in the figure given below.



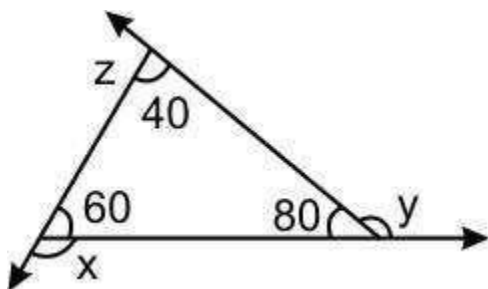
41. Find x in the following figure.



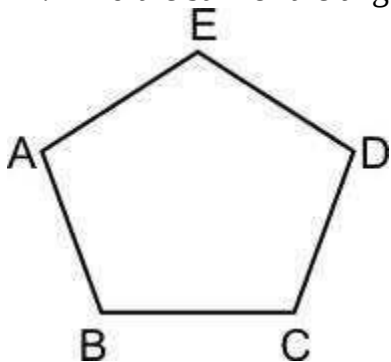
42. Find the measure of each exterior angle of a regular polygon of 9 sides.
43. Name the quadrilateral whose diagonals are perpendicular bisector of each other.
44. Name a quadrilateral with exactly one pair of parallel sides.
45. Find x in the following figure.



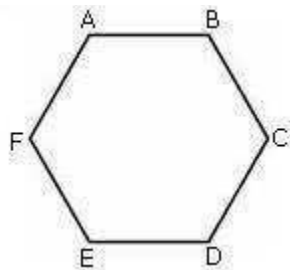
46. Use the figure given below to find $x + y + z$.



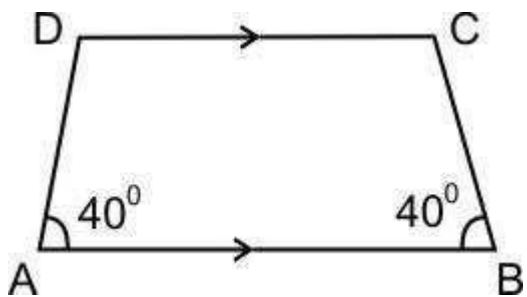
47. Find the sum of the angles in the figure given below.



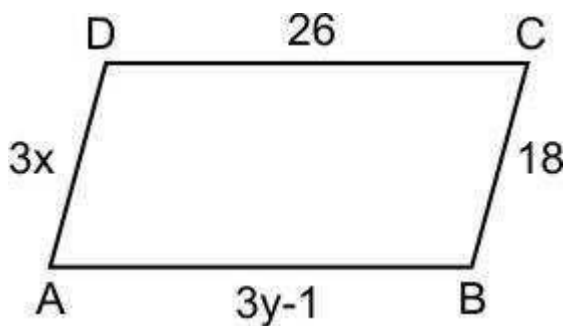
48. Find the sum of the angles in the following figure.



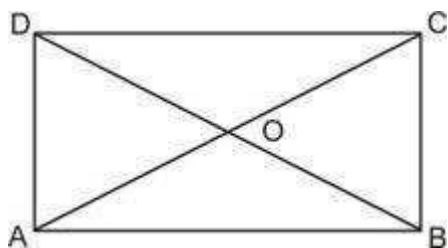
49. ^{48.} ABCD is a trapezium in which $AB \parallel DC$. If $A = B = 40$, find the measures of other two angles.



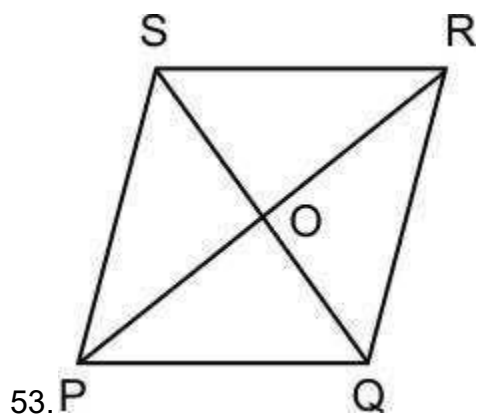
50. In the following figure, given a parallelogram ABCD. Find x and y .



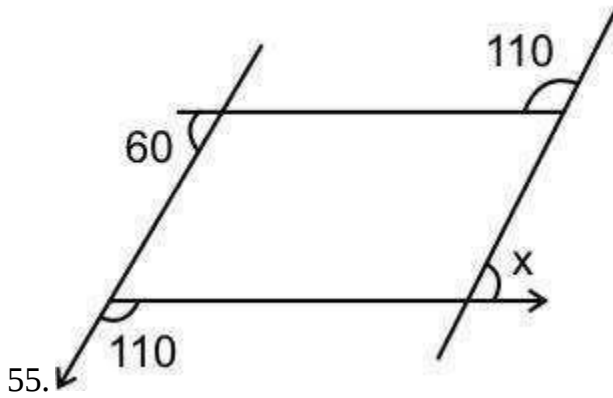
51. The diagonals AC and BD of rectangle ABCD intersect each other at point O. If $OA = 5$ cm, find AC and BD.



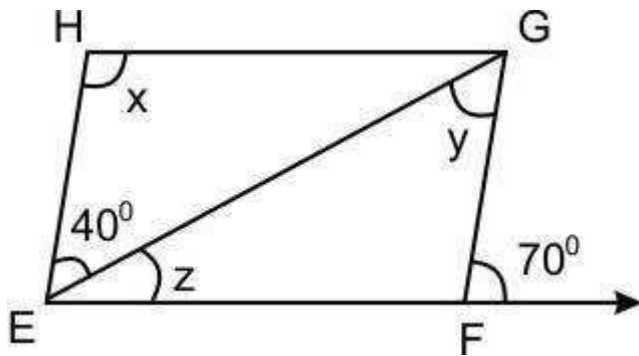
52. In parallelogram PQRS, given that $OQ = 4$ cm, and PR is 5 more than SQ. Find OP.



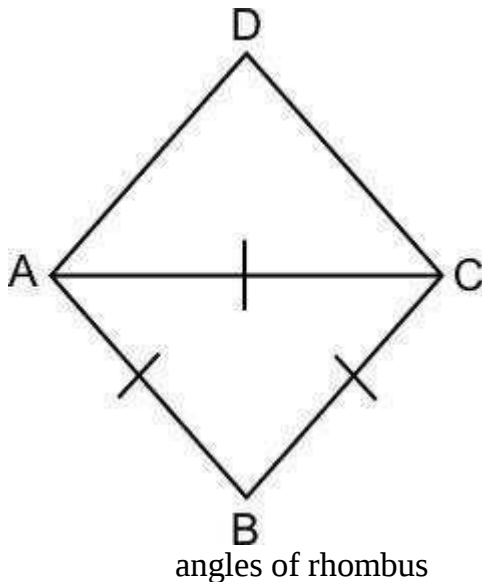
54. Find the measure of x in the following figure.



56. The measure of two adjacent angles of a parallelogram are in the ratio of 2 : 3. Find the measure of each of the angles of the parallelogram.
57. Two adjacent angles of a parallelogram have equal measure. Find the measure of each of the angles of the parallelogram.
58. EFGH is a parallelogram. Find the angle measures x , y and z .



59. The diagonal AC of rhombus ABCD is equal to one of its sides BC. Find all the



ACTIVITY BASED QUESTION

1. Draw a quadrilateral whose diagonals have equal lengths of 8 cm that bisect each other, and intersect at an angle of
(i) 30° (ii) 40° (iii) 90° (iv) 140°
2. Consider a circle with centre O. Line segments PL and AM are two perpendicular diameters of the circle. What is the figure APML? Reason and/or experiment to figure this out.
3. We have seen how to get 90° using paper folding. Now, suppose we do not have any paper but two sticks of equal length, and a thread. How do we make an exact 90° using these?
4. We saw that one of the properties of a rectangle is that its opposite sides are parallel. Can this be chosen as a definition of a rectangle? In other words, is every quadrilateral that has opposite sides parallel and equal, a rectangle?

Geography

1. Define the following in your words: Natural resources, Renewable resources, Sustainable development and Conservation of resources.
2. Explain- Ecosystem Service and Ecosystem Function.
3. What do you mean by Restoration and Regeneration of renewable resources.
4. How overexploitation of groundwater becomes a severe problem in Punjab.
5. Write a short note on The International Solar Alliance, Caselet from Sikkim.
6. Explain the responsible and judicious use of resources.
7. “Water is a vital natural resource”. Discuss with examples from the text.
8. On an out-line map of India, mark the following:
Major coal producing areas (Jharkhand, Odisha, Chhattisgarh).
Petroleum-producing regions (Assam, Gujrat, Mumbai High).

History and Civics

Map Activity

1. On a physical/outline map of India, mark and label the following:

- a) Delhi Sultanate (any one dynasty of your choice)
- b) Mughal Empire under Akbar
- c) Any one regional power that resisted Mughal expansion (e.g., Mewar, Ahoms, Vijayanagara).

2. Choose one empire/kingdom (Delhi Sultanate, Mughals, Vijayanagara, Ahoms, or Rajputs) and write 1–2 pages about:

- Its founders
- Area covered
- Administrative system
- Reason for decline.

3. Compare the administrative system of the Delhi Sultanate with that of the Mughals. Write at least 4 points.

4. Design a creative poster with the slogan: “Every Vote Counts” to show the importance of voting in a democracy.

ENGLISH

Writing Skills

1. **Paragraph Writing (100-120 words)**

Write on **two of the following topics**. Use proper structure (topic sentence, supporting details, conclusion) and linkers (firstly, moreover, therefore, finally, etc.):

- a) The Importance of Time Management
- b) My Favourite Season
- c) An Act of Kindness I Experienced
- d) How Sports Inspire Team Spirit

Literature: Poorvi

2. **Character Sketch (100–120 words)**

Choose one character from a prose lesson in *Poorvi* and describe:

 Their qualities (with examples from the story)

 Why you admire or dislike them

 A lesson you learnt from them

3. **Poetry Appreciation (in 60–80 words)**

Pick **any one poem** from *Poorvi* and answer:

What does the poem teach or remind us of?

Which line or image touched you the most? Why?

4. **Value-Based Response (60–70 words)**

From any story in *Poorvi*, explain one **moral/value** you learnt and how you can apply it in your life.

Vocabulary & Grammar

5. **Word Bank**

- Collect **5 new words** from all the chapters taught till vacation in *Poorvi*.
- Write their meaning.
- Use them in **your own sentences**.

6. **Grammar Notes (with examples)**

Prepare short notes on:

- a) Direct and Indirect Speech
- b) Use of Articles (a, an, the)
- c) Types of Adjectives
- d) “If” Clause

Reading

7. **Book Review (120–150 words)**

Read any English storybook/novel from the school library or your personal collection.

Write a review including:

Title & Author

Genre & Theme

Summary (3–4 lines, no spoilers)

Main Characters

What you liked/disliked

Whether you would recommend it

AUTUMN VACATION TASK
SAINIK SCHOOL,BHUBANESWAR
CLASS – VIII B
SUBJECT – LOWER ODIA

1) ନିମ୍ନ ବିଷୟଗୁଡ଼ିକୁ ଦେଖିଲେଖ ଓ ବିଷୟ ଆଧାରିତ ଚିତ୍ର କର ।

- କ) ତୁଳସୀ ଦୁଇ ପତ୍ରରୁ ବାସେ
- ଖ) ତୁମ ପରି ଛୋଟ ପିଲାଟିଏ
- ଗ) ସବୁ ସୁନ୍ଦର
- ଘ) ସାହାଯ୍ୟର ସୁଫଳ
- ଙ) ଚିକି ଫୁଲଟିର ବାସ
- ଚ) ସାନ ସିନା ବାନ ତା ମହାନ
- ଛ) ଜାତୀୟ କବି ବୀରକିଶୋର
- ଜ) ଅନେକ ଫୁଲର ମାଳଟିଏ
- ଝ) ବଣ ଓ ବଣି
- ଞ) ବିପ୍ଳବୀ ବକସି ଜଗବନ୍ଧୁ

2) ନିମ୍ନ ବିଷୟ ଗୁଡ଼ିକରେ ମନରୁ ଭାବି ଲେଖ ।

ଆମ ବିଦ୍ୟାଳୟ ,ମୋ ପ୍ରିୟ ସାଙ୍ଗ ,ମୋ ପ୍ରିୟ ଶିକ୍ଷକ/ଶିକ୍ଷୟିତ୍ରୀ ,ମୋ ଜୀବନର ଲକ୍ଷ୍ୟ ,ଦୁର୍ଗାପୂଜା ,ଦୀପାବଳି ,ସ୍ବାଧୀନତା ଦିବସ

AUTUMN VACATION TASK
SAINIK SCHOOL,BHUBANESWAR
CLASS – VIII A
SUBJECT – ODIA

1. ନିମ୍ନ ବିଷୟ ଗୁଡ଼ିକର ପ୍ରଶ୍ନ ଗୁଡ଼ିକର କର ।

ବୃକ୍ଷ ମାହାତ୍ମ୍ୟ
ରୋଗୀସେବା
ଡାକମୁନସି
ସୁନା ନେଉଳ
ବଶିଷ୍ଠ ଓ ବିଶ୍ୱାମିତ୍ର
ଦଶହରା ଭେଟି

2. ନିମ୍ନ ବିଷୟ ଗୁଡ଼ିକରେ ପ୍ରବନ୍ଧ ଲେଖ ।

ପରିବେଶ ପ୍ରଦୂଷଣ ,ଦୁର୍ଗାପୂଜା ,ଦୀପାବଳି , ବିଜ୍ଞାନର ବରଦାନ, ଛାତ୍ର ଓ ରାଜନୀତି ,
ଗଣମାଧ୍ୟମ ଓ ଆଜିର ସମାଜ ,ଇଣ୍ଟରନେଟ ଓ ଆଜିର ଶିକ୍ଷା ବ୍ୟବସ୍ଥା ,ନାରୀଶିକ୍ଷା ,ଆଦର୍ଶ
ବିଦ୍ୟାର୍ଥୀ ,ପରୋପକାର, ମୋ ପ୍ରିୟ ଶିକ୍ଷକ/ଶିକ୍ଷୟିତ୍ରୀ,ଓଡ଼ିଶାରେ ବନ୍ୟା ସମସ୍ୟା ଓ ତାର
ପ୍ରତିକାର ,ଛାତ୍ର ଜୀବନରେ ପର୍ଯ୍ୟଟନର ଭୂମିକା

3. ମନରୁ ଭାବି ପଚାଶଟି ଯୁଗ୍ମଶବ୍ଦ ଲେଖ ।

4. ମନରୁ ଭାବି ପଚାଶଟି ଶବ୍ଦର ବିପରୀତ ଶବ୍ଦ ଲେଖ ।

5. ମନରୁ ଭାବି ପଚାଶଟି ଶବ୍ଦର ପ୍ରତିଶବ୍ଦ ଲେଖ ।

SAINIK SCHOOL BHUBANESWAR 2025-26

AUTUMN VACATION TASK

CLASS- VIII

HIGHER HINDI

1. कबीर की सखियों को चित्र सहित लिखकर कंठस्थ कीजिए ।
2. 'हरिद्वार' पाठ के आधार पर अपनी **किसी बस /रेल यात्रा** का वर्णन कीजिए ।
3. विशेषण और उसके भेदों की उदाहरण सहित एक तालिका बनाइए ।
4. किन्हीं 30 शब्दों के विलोम शब्द लिखिए ।
5. किन्हीं 20 शब्दों के दो - दो समानार्थी शब्द लिखिए ।
6. निम्नलिखित विषयों पर पत्र लिखिए -
 - (क) बदलते मौसम में ठंड से बचने की सलाह देते हुए अपने छोटे भाई को एक पत्र लिखिए ।
 - (ख) छुट्टियों में अपनी दिनचर्या के विषय में जानकारी देते हुए अपने मित्र को एक पत्र लिखिए ।
7. निम्नलिखित विषयों पर अनुच्छेद लिखिए -
 - वृक्ष एक : लाभ अनेक
 - पर्यावरण संरक्षण
 - विज्ञान के चमत्कार
8. निम्नलिखित विषयों पर संवाद लिखिए -
 - (क) बढ़ते प्रदूषण पर चिंता प्रकट करते हुए दो नागरिकों के मध्य ।
 - (ख) बच्चे परीक्षा परिणाम पर चिंता व्यक्त करते हुए माता -पिता के मध्य ।
9. निम्नलिखित विषयों से संबंधित आकर्षक विज्ञापन तैयार कीजिए -
 - टी. वी. विक्रेता के लिए
 - स्वच्छता का महत्त्व बताते हुए
10. **कोई एक** स्वरचित कविता या कहानी लिखिए ।

Dr GN Pandey

SAINIK SCHOOL BHUBANESWAR 2025-26

AUTUMN VACATION TASK

CLASS - VIII

LOWER HINDI

1. 'टिपटिपवा' कहानी को चित्र कथा के रूप में लिखिए ।
2. 'मिर्च का मज़ा' कविता को याद करके चित्र सहित लिखिए ।
3. अपनी हिंदी पाठ्य पुस्तक से 20 कठिन शब्दों को खोजकर लिखिए ।
4. किन्हीं 30 शब्दों के विलोम शब्द लिखिए ।
5. किन्हीं 20 शब्दों के दो - दो समानार्थी शब्द लिखिए ।
6. निम्नलिखित विषयों पर पत्र लिखिए -
 - (क) अपने घर आने की सूचना देते हुए पिताजी को ।
 - (ख) ठंड से बचने की सलाह देते हुए अपने प्रिय मित्र को ।
7. निम्नलिखित विषयों पर अनुच्छेद लिखिए -
 - परोपकार
 - समय पालन
 - त्योहारों का महत्व
8. निम्नलिखित विषयों पर संवाद लिखिए -
 - (क) परीक्षा परिणाम के ऊपर पिता - पुत्र के मध्य ।
 - (ख) खेल का महत्व समझाते हुए दो मित्रों के मध्य ।
9. निम्नलिखित विषयों से संबंधित आकर्षक विज्ञापन तैयार कीजिए -
 - किसी मोबाइल निर्माता कंपनी की तरफ़ से मिल रही छूट पर ।
 - किसी घड़ी विक्रेता की तरफ़ से मिल रही छूट पर ।
10. कोई एक स्वरचित कविता या कहानी लिखिए ।

Dr GN Pandey

Part A – Theory Questions

1. What is a chart? Why are charts important in spreadsheets?
2. Write the steps to create a chart in MS Excel.
3. Differentiate between Column Chart, Line Chart, and Pie Chart.
4. What are conditional statements in Python? Explain with examples.
5. Differentiate between **if**, **if-else**, and **if-elif-else** statements.
6. Write the syntax of a nested if statement with an example.
7. What is a loop in Python? Why are loops used?
8. Explain the difference between **for loop** and **while loop** with examples.
9. Write any two real-life examples where conditionals and loops are useful in programs.
10. Which chart type is best for showing:
 - a) Percentage distribution
 - b) Comparison between two or more categories
 - c) Continuous data (like temperature over a week)

Part B – Practical / Activity

1. Enter marks of 5 students in 5 subjects. Use formulas and functions to calculate:
 - o Total marks
 - o Average marks
 - o Highest and Lowest marks
2. Create a sales data sheet for 6 months and use:
 - o SUM to find total sales
 - o AVERAGE to find average sales
 - o MAX & MIN to find highest and lowest sales month
3. Represent the sales data using:
 - o Column Chart
 - o Line Chart
 - o Pie Chart
4. Write a program to check whether a given number is positive, negative, or zero.
5. Write a program to print the largest of three numbers using if-elif-else.
6. Write a program to display the multiplication table of a number using a for loop.
7. Write a program to print all even numbers between 1 and 50 using a while loop.
8. Write a program to find the factorial of a number using a loop.
9. Write a program to calculate the sum of digits of a number using while loop.
10. Write a program to check whether a number is prime or not using a loop.

Part C – HOTS (Higher Order Thinking Skills)

1. If you want to compare marks of students in different subjects, which chart will you choose and why?
2. If you want to show the percentage of expenses in your monthly budget, which chart will be most suitable?
3. Why do you think functions save time compared to writing formulas manually?
4. Write a program to display all numbers between 1 and 100 that are divisible by both 3 and 5.
5. Write a program to calculate the grade of a student based on the following conditions:
 - Marks $\geq 90 \rightarrow$ Grade A
 - Marks $\geq 75 \rightarrow$ Grade B
 - Marks $\geq 50 \rightarrow$ Grade C
 - Marks $< 50 \rightarrow$ Grade F

LIBRARY

1. Write a 'Book Review' of your favourite book read from the School Library. Use A4 sheet for the activity. Draw border and write neatly.

2. The Hindu young world invites students to send in drawings, prose and poems to be featured in its Scrapbook pages. Send entries to youngworld@thehindu.co.in along with your Name, class, school, city and a passport size photograph.

Note: 1. Drawing must be in JPG format only.

2. Text contribution should not be more than 200 words and be sent as Word document.

3. Cadets should retain the hard copy of his/her original work and submit in the school library.

A cadet can use one of these topics for their creative work of drawing, poem or prose. The topics are given only for reference; cadets are free to choose any other topic of their choice.

All contribution must be the original work of the cadet.

Ser No	Topic	Ser No	Topic
1	My Garden	19	Deepawali
2	MY School Library	20	Indian festivals
3	Friendship	21	Importance of trees
4	My family	22	New Year
5	My school Life	23	Christmas
6	India of My dreams	24	Children's Day
7	Independence Day	25	World book day
8	My dream	26	World heritage day
9	The missile man of India	27	World Sparrow Day
10	My village	28	World Water day
11	MY FAVOURITE TEACHER	29	Republic Day
12	My best friend	30	Martyrs' Day
13	My Mother	31	World WETLAND DAY 2 Feb
14	Nature	32	National Science Day
15	Climate change	33	Holi
16	Save water	34	World Wildlife day
17	Rainy season	35	Unity in Diversity
18	Dusshera	36	Cleanliness

2. The children Magazine Champak invites students to send in drawings, prose ,poems,Jokes , Riddles ,Stories to be featured in its Magazine. Send entries with your Name, age, school, and Address To:

Delhi Press
703, B Wing, INS Tower,
Opp. Trident Hotel , GBlock,BKC,
Bandra(East) Mumbai-400051

NOTE:-----

1. Cadets should retain the hard copy of his/her original work and submit in the school library.
2. All contribution must be the original work of the cadet.
3. A cadet can use one of the topics given in activity 1 above for their creative work of drawing, poem or prose. The topics are given only for reference; cadets are free to choose any other topic of their choice
3. Answer the following question based on General Knowledge. Use your library note book for the assignment
 1. What does "DC" mean in Washington DC?
 2. Name any one country which is present in both Asia and Europe.
 3. Which continent is considered the hottest in the world?
 4. Which bank is known as the "Banker's Bank"?
 5. Who invented electricity?Ans:
 6. Who was the first Indian to win an individual Olympic gold medal?
 7. Which gas is most abundant in the Earth's atmosphere?
 8. What is the chemical symbol for gold?
 9. What is the full form of GPS
 10. Which instrument is used to measure atmospheric pressure?
 11. How many MBs are there in 1 GB?
 12. Where is the World Health Organisation situated?
 13. When does National Science day celebrate?
 14. Kuala Lumpur is the capital of which country?
 15. Who wrote the national song of India?
 16. Where is the Sundarbans, the world's largest mangrove forest, located?
 17. Which war ended with the Treaty of Versailles?
 18. What is the center of an atom called?
 19. Who is known as the Bard of Avon?
 20. Who wrote 'The Adventures of Tom Sawyer'?
 21. Which novel begins with the line 'Call me Ishmael'?
 22. What is the name of the mission that aims to return humans to the Moon?
 23. Which country recently launched the Mars mission named 'Tianwen-1'?
 24. Who is the current Secretary-General of the United Nations?
 25. Which country hosted the 2024 Summer Olympics?

SAINIK SCHOOL BHUBANESWAR

CLASS VIII (CHEMISTRY)

AUTUMN VACATION TASK FOR 2025

1. Why does a smell of perfume spread quickly in a room?
2. Explain in detail the characteristics of solids, liquids, and gases.
3. Why do liquids take the shape of the container?
4. Make a table classifying 10 household substances as elements, compounds, or mixtures.
5. How can you separate a mixture of iron filings and sulfur powder?
6. Differentiate between elements, compounds, and mixtures, highlighting their key characteristics and providing examples for each.
7. Discuss the importance and applications of elements, compounds, and mixtures in our daily lives.
8. Define solute, solvent, and solution. Provide an example of each.
9. Explain the process of dissolution. What factors affect the rate of dissolution?
10. Explain the concept of solubility and the various factors that affect it.
11. A stone sculpture weighs 225 g and has a volume of 90 cm³. Calculate its density and predict whether it will float or sink in water.
12. Reema has a piece of modeling clay that weighs 120 g. She first moulds it into a compact cube that has a volume of 60 cm³. Later, she flattens it into a thin sheet. Predict what will happen to its density.

13. A group of students is experimenting. They have two beakers, A and B, each containing 100 mL of water. In beaker A, they add 5 grams of salt and stir. In beaker B, they add 20 grams of salt and stir. They observe that all the salt in beaker A dissolves, but in beaker B, some salt remains at the bottom, even after stirring vigorously.

- (a) Why did all the salt dissolve in beaker A, but not in beaker B?
- (b) What kind of solution is formed in beaker A?
- (c) What about beaker B (considering the undissolved salt)?