# ITBP PUBLIC SCHOOL
# HOLIDAY HOMEWORK (2023-24)
# CLASS IX

| Sr. No. | SUBJECT | TOPICS |
|---|---|---|
| 1 | ENGLISH | *"Reading is essential for those who seek to rise above the ordinary." – Jim Rohn*<br><br>Let the books prove to you that they can be your constant companions during this summer; let the books enlighten your path of awareness.<br><br>• Read following stories:<br><br>Iswaran the Storyteller (Moments) and In the Kingdom of Fools (Moments). Write difficult words and their meanings in your notebook and enrich your vocabulary.<br><br>***Prepare an Art-Integrated Project with pairing of States/ Union Territories- Delhi – Lakshadweep, Andaman and Nicobar Islands, to familiarize with culture, tradition and geography of more States and UTs as envisaged in the Ek Bharat Shrestha Bharat Programme (EBSB)***<br><br>·   **Roll no. 1 to 17 –** Collect information and paste pictures related to culture and cuisine of Lakshadweep, Andaman and Nicobar Islands. (Use Scrap Book)<br><br>·   **Roll no. 18 to 36:** Prepare a 'Travel Brochure' that advertises a destination, sightseeing attraction, or tour activity of Lakshadweep, Andaman and Nicobar Islands.<br><br>**Note: The art integrated project work will be assessed as part of the subject enrichment activity for internal assessment.**<br><br>**Words and Expression Part-1**<br><br>**Complete Unit - 1 in Book.** |

| 2 | हिन्दी | गृहकार्य विद्यार्थियों के लिए कई प्रकार से लाभदायक होता है। यह छात्रों को पढ़ने/लिखने/सोचने के कौशल को बनाए रखने में मदद करता है तथा छात्रों को उनके द्वारा सीखी जा रही सामग्री का अभ्यास करने और उसे सुदृढ़ करने की अनुमति देता है। यह दोहराव उन्हें विषय वस्तु की बेहतर समझ और निपुणता विकसित करने में मदद करता है, जिसके परिणामस्वरूप परीक्षण और असाइनमेंट पर बेहतर प्रदर्शन हो सकता है। इन्हीं बिंदुओं को ध्यान में रखते हुए,दिए गए ग्रीष्मावकाश का निर्माण किया गया है,जिसे पूरी लगन से पूर्ण करना हर छात्र की ज़िम्मेदारी है।

❖ लक्षद्वीप आदिवासी / जनजातियों की सचित्र परियोजना बनाते हुए उनकी वेशभूषा,भोजन एवं दर्शनीय स्थलों के बारे में लिखिए।

❖ 'दुःख का अधिकार' पाठ के आधार पर लेखक और बुढ़िया के बीच अपनी कल्पना से संवाद लिखिए। चित्र भी बनाकर अपने कार्य को आकर्षक बनाइए |

❖ घर में उपलब्ध समाचार पत्र एवं पत्रिकाओं को पढ़कर पठन कौशल का अभ्यास करें तथा प्रतिदिन हिन्दी समाचार पढ़कर व सुनकर हर रोज़ पाँच नूतन शब्द चुनकर उनका अर्थ लिखिए।

❖ किन्हीं पाँच भारतीय पर्वतारोहियों के बारे में लिखते हुए सचित्र परियोजना बनाइए।

❖ रैदास के पदों में जिन संत कवियों का परिचय दिया गया है, उनके चित्रों के साथ संक्षेप में उनके परिचय पर आधारित एक पोर्टफोलियो तैयार कीजिए। जैसे- नामदेव, सधना, सैना, तिलोचन आदि।

❖ भयंकर गर्मी में आपने प्रकृति को बचाने व जीवों की रक्षा हेतु क्या उपाय वह योगदान किया, उसका वर्णन करें।

❖ हिंदी लेखन अभ्यास एवं सुधार हेतु एक सुलेख उत्तर पुस्तिका लगाएँ एवं उसमें **20** पेज सुलेख कार्य करें।

❖ 'वीर रस' की किन्हीं दो कविताओं को कक्षा में 'कविता वाचन प्रतियोगिता' हेतु तैयार करें।

❖ पाठ्यक्रम में पढ़ाए गए पाठों एवं करवाए गए कार्य की पुनरावृति एवं अभ्यास पुनः करें तथा उन्हें परीक्षा एक हेतु तैयार करें।

❖ सारा परियोजना कार्य आकर्षक ,सृजनात्मक और कलात्मक होना चाहिए । कार्य को आकर्षक बनाने के लिए आप भिन्न-भिन्न रंगों और चित्रों का प्रयोग कर सकते हैं। सारा कार्य आंतरिक मूल्यांकन के अंतर्गत जाँचा जाएगा।

❖ (दिया गया सारा कार्य रंगीन **A-4** साइज़ शीट की एक फ़ाइल बनाकर अथवा स्क्रैप बुक में करें।)
❖ (हिन्दी सुलेख ग्रीष्मावकाश कार्य उत्तरपुस्तिका में करें।) |

| 3 | MATHS | *"Summer is here and with it come your amazing holidays! But what's a holiday without some homework? So, Do your homework and be a hero this summer!* |

**General Guidelines for Students**:
- Solve the worksheet in Maths notebook. Use black and blue pens to write the questions and answers respectively.
- Complete your notebook work, and revise all the chapters done in class(Ch 1,3) Do your work neat and clean.

**Art integrated activity:**
- Make a chart (A-3 Size) of all the Algebraic Identities in Chapter – 2(Polynomials) and decorate it beautifully with the Art of LAKSHADWEEP (Art Integration).

**Art integrated activity:**
- Construct The Wheel of Theodorus (A-4 Size) and decorate it with the Ancient Art of ANDAMAN AND NICOBAR ISLAND(Art Integration).

**Worksheet**

1. Is P (3, 2) & Q(2, 3) represent the same point?
2. In which quadrant points P(3,0), Q(6,0) , R (-7.0), S (0,-6), lie?
3. If the points A(0, -6), B(0, 2 and C (a, 3) lie on the y-axis, then find the value of a.
4. Find the mirror images of the following point using x-axis & y-axis as mirror.
(i) A(2,3)        (ii) B(2,-3)        (iii) C(-2,3)              (iv) D(-2,-3)
5. What we call the vertical line in Cartesian co-ordinate system.
6. What is the perpendicular distance of the point (3, 4) from
       a) x – axis       b) y – axis
7. Write the abscissa and ordinate of the following points
(-3, 5),   (0, 9),   (-5, 0),   (3,3),   (7, -9),  (12, 13)
8. In which quadrant will the point lie, if:-
(i) ordinate is 3 and abscissa is – 7
(ii) abscissa is – 10 and ordinate is – 4
(iii) Ordinate is 4 and abscissa is – 6.
9. Fill in the blanks:-
(i) The coordinates of the origin 0 are ………………………
(ii) The y coordinate of every point on the x-axis is ……………
(iii) Distance along the x-axis is called ………………………
(iv) Distance along the y-axis is called ………………………
10. Find the value of a and b if:( $3+\sqrt{2})/(3-\sqrt{2})$  =a+b$\sqrt{2}$.
12. If $(\sqrt{7}-1)/(\sqrt{7}+1)$  - $(\sqrt{7}+1)/(\sqrt{7}-1)$=a+b$\sqrt{7}$  ,find the  values of a and b.
13. If x =$\sqrt{2}+1$ ,find the value of $(x-1/X)^2$
14. If x=2-$\sqrt{3}$ find the value of $(x+1/X)^2$
15. $((7\sqrt{3})/\sqrt{(10+\sqrt{3}))}-( (2\sqrt{5})/(\sqrt{6}+\sqrt{5}) ) - ((3\sqrt{2})/(\sqrt{15}+3\sqrt{2}))$
16. If x= 9-4$\sqrt{5}$, find $x^2+1/x^2$
17. Simplify:
a) $12\sqrt[4]{5} \div 2\sqrt[3]{12}$                      b) $[5(81/3+271/3)^3]1/4$
18. Express each of the following decimal in the form p/q

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| | | i 0.32⁻    ii) 0.123⁻    iii) 0.003(52)⁻       iv) 15.7(12)⁻<br>19. Locate √2,√3,√5,√7 on number line.<br>20. If (5x-3)(32x-8) = 225 find x. |
| **4** | **PHYSICS** | 1. If the displacement of an object is proportional to square of time, then the object moves with<br>   (a) uniform velocity<br>   (b) uniform acceleration<br>   (c) increasing acceleration<br>   (d) decreasing acceleration<br>2. The distance time graph of a body coincides with its time axis. The body must be<br>   (a) in uniform motion<br>   (b) at rest<br>   (c) in uniformly accelerated motion<br>   (d) in zig-zag motion<br>3. From the given $v - t$ graph (see below Fig.), it can be inferred that the object is<br>   (a) in uniform motion<br>   (b) at rest<br>   (c) in non-uniform motion<br>   (d) moving with uniform acceleration<br>4. The velocity time graph of a body is parallel to the time axis. The body is<br>   (a) at rest<br>   (b) having uniform acceleration<br>   (c) having zero acceleration<br>   (d) having non-uniform acceleration<br>5. A particle is moving in a circular path of radius $r$. The displacement after half a circle would be:<br>   (a) Zero<br>   (b) $r$<br>   (c) 2 $r$<br>   (d)<br>   2 $r$<br>6. A body is thrown vertically upward with velocity $u$, the greatest height $h$ to which it will rise is,<br>   (a) $u/g$ (b) $u^2/2g$ (c) $u^2/g$ (d) $u/2g$<br>7. The numerical ratio of displacement to distance for a moving object is<br>   (a) always less than 1<br>   (b) always equal to 1<br>   (c) always more than 1<br>   (d) equal or less than 1<br>8. Suppose a boy is enjoying a ride on a *merry-go-round* which |

is moving with a constant speed of 10 m/s. It implies that the boy is

(a) at rest

(b) moving with no acceleration

(c) in accelerated motion

(d) moving with uniform velocity

9. Area under a $v - t$ graph represents a physical quantity which has the unit

(a) $m^2$

(b) m

(c) $m^3$

(d) m/s

10. Four cars A, B, C and D are moving on a levelled road. Their distance versus time graphs are shown in below Fig.. Choose the correct statement

(a) Car A is faster than car D.

(b) Car B is the slowest.

(c) Car D is faster than car C.

(d) Car C is the slowest.

11. Slope of a velocity – time graph gives

(a) the distance

(b) the displacement

(c) the acceleration

(d) the speed

12. In which of the following cases of motions, the distance moved and the magnitude of displacement are equal?

(a) If the car is moving on straight road

(b) If the car is moving in circular path

(c) The pendulum is moving to and fro

(d) The earth is revolving around the Sun

S HORT ANSWER QUESTIONS

13. The displacement of a moving object in a given interval of time is zero. Would the distance travelled by the object also be zero? Justify you answer.

14. How will the equations of motion for an object moving with a uniform velocity change?

15. A car starts from rest and moves along *the x*-axis with

constant acceleration 5 m/s$^2$ for 8 seconds. If it then continues with constant velocity, what distance will the car cover in 12 seconds since it started from the rest?

16. A motorcyclist drives from A to B with a uniform speed of 30 km/h and returns back with a speed of 20 km/h. Find its average speed.

17. Draw a velocity versus time graph of a stone thrown vertically upwards and then coming downwards after attaining the maximum height.

20. A girl walks along a straight path to drop a letter in the letterbox and comes back to her initial position. Her displacement–time graph is shown in below figure. Plot a velocity– time graph for the same.

Fill In The Blanks:

21. When s-t graph is parallel to x-axis, the body is_____.

22. When v-t graph is parallel to x-axis, the body is_____.

23. The slope of v-t graph for a body in uniformly accelerated motion is_____.

24. The slope of displacement-time graph for a car parked in a parking area is_____.

25. Acceleration is a _____ quantity.

TRUE/FALSE:

26. Velocity of an object in uniform circular motion is constant.

27. A car moving on a crowded road with a number of traffic red signals is in non-uniform Motion.

28. Displacement of a body can be positive or zero, but never negative.

29. Angular displacement is measured in radians.30. Define motion.

31. Distinguish between distance and displacement

32. Define acceleration also write down its S.I unit

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| | | NUMERICALS

33. An object travels 16m in 4seconds and then another 16m in next 2seconds. What is the average Speed of object?

34. Usha swims in 90m long pool. She covers 180m in one minute by swimming from one end to Other and back along the same straight path. Find the average speed and average velocity of Usha.

35. Derive the equation for velocity-time relationship $(v = u + at)$ by graphical method

36. A sprinter in a 100m race covers 4m in the first second, 30m in the next 4s, 52m In another 4s and finishes the race in 10s.

    a) Calculate Average velocity

    b) In which time interval, is the average velocity attained by the sprinter maximum?

    c) Plot the distance- time graph for the motion of sprinter. |
| 5 | CHEMISTRY | # CHAPTER 1 ( MATTER IN OUR SURROUNDS)

OBJECTIVE QUESTIONS:-

1) The process for the change of a solid state directly into its vapour is called:

    a) Evaporation

    b) Ebulliion

    c) Condensation

    d) Sublimation

2) The process of evaporation causes

    a) Temperature to rise

    b) Heating

    c) Cooling |

d) None of these

3) As the pressure of air decreases, the boiling point of liquid:

    a) Increases

    b) Decreases

    c) Remains fixed

    d) None of these

4) The conversion of a gas into liquid is called:

    a) Gasification

    b) Sublimation

    c) Condensation

    d) Freezing

5) The temperature at which solid changes into liquid is called :

    a) Melting point

    b) Boiling point

    c) Eutectic point

    d) Critical point

6) The force that bind the particles of matter together :

    a) Intermolecular space

    b) Bond

    c) Intermolecular force

    d) Nuclear force

7) The smell of perfume spread out by a process known as:

    a) Evaporation

    b) Diffusion

    c) Condensation

d) Fussion

8) Ice floats on the surface of water because:

    a) It is heavier than water

    b) The density of water is same as that of ice

    c) Ice is lighter than water

    d) None of these

9) Which of the following statements do not express the property of solid:

    a) The particle of a solid have energy

    b) The interparticles forces of attraction in a solid are very weak

    c) A solid melts at a fixed temperature.

    d) The fluidity of a solid is very high

        i) (a) and (b) only

        ii) (a), (b) and (d)

        iii) (b) and (c) only

        iv) (c) and (d) only

FILL IN THE BLANKS:

10) A substance is a form of matter that has a ------------------- composition.

11) Matter is made up of very small---------------------.

12) The matter in our surrounding exists in three state-_____,_____and_____ ____.

13) Intermolecular force of attraction are _____ in solid, _____liquids and _____ in gasses.

14) The change of solid into liquid is called _____.

15) The change of liquid into vapours is called_____.

16) The change of solid directly into gas is called_____.

17)  Evaporation takes place in the from the_____ of the liquid, while boiling takes place from the _____ of the liquid.

18) Rapid evaporation depends on the _____ area exposed to atmosphere.

19) Density is measured in_____.


MARK THE STATEMENT TRUE AND FALSE:

20) Matter as no mass. [      ]

21) A substance as a definite composition.   [      ]

22) All the material substances contain small particles. [     ]

23) The intermolecular forces in the liquid state of a substance are stronger than those in its solid state . [    ]

24) The space between the particles of solid is called intermolecular space.

25) The volume of gas expands  on heating.

26) The conversion of a gas directly into solid is called condensation. [      ]


VERY SHORT ANSWER QUESTION:

27) What does occupy some space , has mass and other resistance ?

28) What are the different states of matter?

29) What is the space occupied by matter called?

30) What is intermolecular force of attraction?

31) A substance has definte shape and volume. What it is called?

32) Can a solid flow?

33) Is the boiling point of water on the mountain top the same as that on the ground?

34) Water is cooled to $0^0C$ . What do except to happen?

35) What happen when the gas is cooled?

36) What happens when ammonium chloride heated?

37) 25ml each of water and alcohol are taken in a two separate dishes and left exposed to air. What do you expect to observe?

38) What is the fourth state of matter ?

SHORT ANSWER TYPE QUESTION:

39) Define matter . Gives some example .

40) What is a substance?

41) Mention three points of difference between a solid and a liquid.

42) What is sublimation? Give three examples of substances which sublime on heating.

43) What is the freezing point of a liquid?

44) Define latent heat of fusion.

45) Define latent heat of vaporisation.

46) How can you show that evaporation causes cooling?

47) What is condensation ? How is the condensation of a gas carried out?

48) Give reason for each of the following.

   a)  The smell of hot sizzling food reaches you at a distance, but to get the smell of cold food you have to go near it.

   b)  Camphor disappear without leaving any residue .

   c)  A gas exerts pressure on the walls of the containing vessel.

   d)  Sponge is compressible , though it is solid.

   e)  The temperature of a substance does not change at its melting point.

   f)  Boiling water and steam both have the same temperature $100^0C$ but steam causes much more severe

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| | | burns than boiling water.<br><br>LONG ANSWER TYPE QUESTIONS:<br><br>49) Mention some points of difference between a solid and a liquid.<br><br>50) Mention the characteristic properties of a gas.<br><br>51) Can air be compressed? Mention an activity to justify your answer.<br><br>52) Explain evaporation and boiling . What is the main difference between the two?<br><br>53) Give reasons for the following.<br><br>     a) You feel cool when you touch a piece of ice.<br><br>     b) You prefer to wear cotton clothes during summer .<br><br>Water stored in an earthen vessel becomes cool. |
| 6 | BIOLOGY | 1. Prepare a portfolio on NATURAL RESOURCES AND THEIR SUSTAINABLE USE.<br>2. Make a working model on the given topic. |
| 7 | GEOGRAPHY | • Write a poem or paragraph showing the importance of wildlife.<br>• Write the script of a street play giving the importance of tree plantation and wildlife.<br>• Prepare a PPT presentation on natural vegetation and wildlife of Andaman and Nicobar and Lakshdweep Island. |
| 8 | HISTORY | Make a comparative project on Andaman and Nicobar islands and Delhi.<br>Use these following points :<br>1. Geo- political importance of both UTs<br>2. Historical background<br>3. Tourism and other economic activities. |
| 9 | ECONOMICS | |
| 10 | POLITICAL SCIENCE | |
| 11 | IT | 1. **Do some research work on AI with application.**<br>2. **Know more about IoT**<br>3. **Do some research on pQuantum computer** |