ASIAN INTERNATIONAL SCHOOL
SUMMER HOLIDAY HOMEWORK
CLASS IX
SESSION: 2022-2023

SUBJECT	TASK ASSIGNED	21ST CENTURY SKILLS
ENGLISH	**A. Prepare a mind map on the storyline of "The Last Leaf" based on your understanding of the text.** **GUIDELINES:** 1) Place the central theme/main idea or controlling point in the centre of your page. You may find it easier to place your page on the side, in landscape orientation, which is easier for drawing purposes. 2) Use lines, arrows, speech bubbles, branches and different colours as ways of showing the connection between the central theme/main idea and your ideas which stem from that focus. 3. Make illustrations and use descriptive adjectives for the characters. **B. Answer the following questions in 100-150 words each.** 1. "It's not the little girl's fault, Mrs Jones. I think the geography sector was geared a little too quickly." What was wrong with the geography sector? Do you think that a machine can be a good teacher? 2. Robert Frost chose a road that was less travelled by. What does this choice reveal about his character? Do you think people should regret their decisions once they have been made? 3. In what ways does the lost child's journey through the fair symbolize the journey of life? 4. Old Behrman sacrificed his own life to save another life. Discuss. **C. Write a story in about 150-200 words based on the given outline:** Ramu and his son on the thatched roof of their hut- village submerged under flood waters-hungry and thirsty - relief arrives next day- given food to eat-taken to relief camp - happy to see friends and relatives safe - prays to Almighty to give him strength to start life afresh. **GUIDELINES:** ●Use simple language.	• Creative and critical thinking skills • Cognitive skills • Analytical skills • Problem solving skills • Writing skills • Literary skills • Research skills

	●Use suitable adjectives and adverbs in your descriptions. ●Write in the first person or the third person. ●Don't have too many characters in the story. ●Try to describe both the physical appearance and behavioural traits of the characters. Add a few dialogues, if possible. The word count being less, you may not be able to include many. ●Divide your story into 3 paragraphs. This would be an ideal division for a word count of 150-200. ●Give the story an interesting title.	
2ND LANGUAGE (HINDI)	कक्षा-नवीं ग्रीष्मकालीन अवकाश गृहकार्य 1-कला समेकित शिक्षा पर आधारित गृहकार्य- पश्चिम बंगाल तथा तमिलनाडु के किन्हीं तीन-तीन स्वतन्त्रता सेनानियों का सचित्र वर्णन करें। नोट-इस कार्य(प्रश्न सं.2) को A4 पेपर पर करें तथा चैनल फाइल का प्रयोग करें।	• Cognitive Skill(संज्ञानात्मक कौशल)
2ND LANGUAGE (BENGALI)	বাংলার পাঁচজন স্বাধীনতা সংগ্রামী সম্পর্কে প্রজেক্টে রচনা।	• Writing skills • Literary skills • Research skills

MATHEMATICS	●**NUMBER SYSTEM**	• Analytical skill • Numeric literacy
	1) Assertion: 0.468 is a terminating decimal. Reason: A decimal in which a digit or a set of digits is repeated periodically, is called a repeating, or a recurring decimal. a.) Both Assertion and Reason are correct and Reason is the correct explanation for Assertion b.) Both Assertion and Reason are correct and Reason is not the correct explanation for Assertion. c.) assertion is true but the reason is false. d.) both assertion and reason are false. 2) Assertion: -25 is not a rational number. Reason: -25 cannot be written in in the form of p/q. a.) Both Assertion and Reason are correct and Reason is the correct explanation for Assertion b.) Both Assertion and Reason are correct and Reason is not the correct explanation for Assertion. c.) assertion is true but the reason is false. d.) both assertion and reason are false. 3) Assertion: Decimal expansion of every rational number is only terminating. Reason : Decimal expansion of every irrational number is terminating recurring a.) Both Assertion and Reason are correct and Reason is the correct explanation for Assertion b.) Both Assertion and Reason are correct and Reason is not the correct explanation for Assertion. c.) assertion is true but the reason is false. d.) both assertion and reason are false. 4) Assertion: 1/7 and 2/7 in between only five irrational number are present. Reason: Between two rational number limited irrational number are present. a.) Both Assertion and Reason are correct and Reason is the correct explanation	

for Assertion

b.) Both Assertion and Reason are correct and Reason is not the correct explanation for Assertion.

c.) assertion is true but the reason is false.

d.) both assertion and reason are false.

5) Assertion: $7\sqrt{5}$, $\sqrt{2}+21$ are the irrational number.

Reason: every integer is an rational number

a.) Both Assertion and Reason are correct and Reason is the correct explanation for Assertion

b.) Both Assertion and Reason are correct and Reason is not the correct explanation for Assertion.

c.) assertion is true but the reason is false.

d.) both assertion and reason are false.

6) Assertion :the rationalizing factor of $2+\sqrt{5}$ is $2-\sqrt{5}$

Reason: the product or quotient of non-zero rational number with irrational number is rational.

a.) Both Assertion and Reason are correct and Reason is the correct explanation for Assertion

b.) Both Assertion and Reason are correct and Reason is not the correct explanation for Assertion.

c.) assertion is true but the reason is false.

d.) both assertion and reason are false.

7) Assertion :$8\sqrt{15}\div 2\sqrt{3}=4\sqrt{5}$

Reason : quotient of non-zero rational number with an irrational number is irrational.

a.) Both Assertion and Reason are correct and Reason is the correct explanation for Assertion

b.) Both Assertion and Reason are correct and Reason is not the correct explanation for Assertion.

c.) assertion is true but the reason is false.

d.) both assertion and reason are false.

8) Assertion :199÷198=19

Reason: if a>0 be a real number and p and q be rational number then ap÷aq=ap-q

a.) Both Assertion and Reason are correct and Reason is the correct explanation for Assertion

b.) Both Assertion and Reason are correct and Reason is not the correct explanation for Assertion.

c.) assertion is true but the reason is false.

d.) both assertion and reason are false.

9)Assertion: (2,3), (3,4), (5,7) are the coprime numbers pair

Reason : Two numbers are co-prime of their HCF is 1.

a.) Both Assertion and Reason are correct and Reason is the correct explanation for Assertion

b.) Both Assertion and Reason are correct and Reason is not the correct explanation for Assertion.

c.) assertion is true but the reason is false.

d.) both assertion and reason are false.

10)assertion: x4. =X5/x 1

Reason: ab/ac= ab-c

a.) Both Assertion and Reason are correct and Reason is the correct explanation for Assertion

b.) Both Assertion and Reason are correct and Reason is not the correct explanation for Assertion.

c.) assertion is true but the reason is false.

d.) both assertion and reason are false.

11) The three rational numbers between 3 and 4 are:

a. 5/2, 6/2, 7/2

b. 13/4, 14/4, 15/4

c. 12/7, 13/7, 14/7

d. 11/4, 12/4, 13/4

12) In between any two numbers, there are:

a. Only one rational number

b. Two rational numbers

c. Infinite rational numbers

d. No rational number

13) $\sqrt{9}$ is _____ number.

a. A rational

b. An irrational

c. Neither rational nor irrational

d. None of the above

14) Which of the following is an irrational number?

a. $\sqrt{16}$

b. $\sqrt{(12/3)}$

c. $\sqrt{12}$

d. $\sqrt{100}$

15) $3\sqrt{6} + 4\sqrt{6}$ is equal to:

a. $6\sqrt{6}$

b. $7\sqrt{6}$

c. $4\sqrt{12}$

d. $7\sqrt{12}$

16) $x = (\sqrt{7}+\sqrt{6})/(\sqrt{7}-\sqrt{6})$

and $y = (\sqrt{7}-\sqrt{6})/(\sqrt{7}+\sqrt{6})$

find $x + y =?$

17) Find 0.787878.... in fraction

18) If $x = 9 - 4\sqrt{5}$, then ($x + 1/x$)

● **STATISTICS**

1) Assertion: Range = Maximum value – Minimum value

Reason: The range of the first 6 multiples of 6 is 9.

a) both Assertion and reason are correct and reason is correct explanation for Assertion

b) both Assertion and reason are correct but reason is not correct explanation for Assertion

c) Assertion is correct but reason is false

d) both Assertions and reason are false

2) Assertion: In the class intervals 10-20, 20-30,30-40.... 20 is included in interval 10-20

Reason: 20 is the upper limit of 10-20

a) both Assertion and reason are correct and reason is correct explanation for Assertion

b) both Assertion and reason are correct but reason is not correct explanation for Assertion

c) Assertion is correct but reason is false

d) both Assertions and reason are false

3) Assertion: the class width for the grouped frequency distribution of the class intervals 0-20, 20-40, 40-60, .. is 20

Reason: Class width is the difference of upper limit & lower limit

a) both Assertion and reason are correct and reason is correct explanation for

Assertion

b) both Assertion and reason are correct but reason is not correct explanation for Assertion

c) Assertion is correct but reason is false

d) both Assertions and reason are false

5) Draw a histogram of the given data

Daily Wages in ₹	Number of Workers
30-40	10
40-50	20
50-60	40
60-70	16
70-80	8
80-90	6

6)

The following histogram shows the height of students within a class:
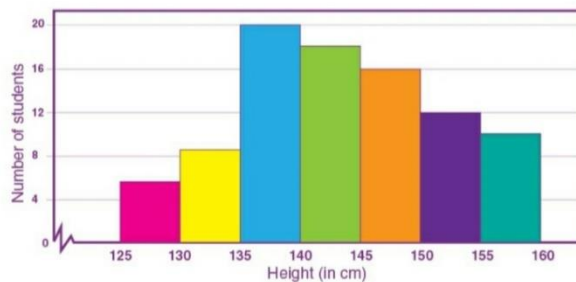
Answer the following questions:

(i) How many students have a height of less than 140 cm?

(ii) How many students have a height greater than 140 cm but less than 155 cm?

19) In a school, on occasion of annual function activities, a competition of spoon running is organised in school's ground. In this competition 20 students started running with spoon in mouth and with closed eyes with a target of 4.135789 m distance, whose decimal expansion is terminating in playground. Therefore, some students failed to reach destination, remaining achieved goal of reaching at final point and they win.

(i) Express 4.135789 in the form of p/q, where p,q∈R.

(ii) What is the name of 4.1353535... type of number system

(iii) Find an irrational number between 4.13 & 4.23

(iv) Without any division say whether 37/50 is terminating or non-terminating

20) The president of society organizes a free medical camp. During the camp the pulse rate of many patients recorded in the some mathematical terms.

i)What is the value of 2.02323...

ii) $\sqrt{18} \times \sqrt{8} \times \sqrt{50}$ =?

iii) Value of 22/7

iv) $4^{2x} = 1/32$ find x

SCIENCE		
	## Multiple Choice Questions 1. Which one of the following sets of phenomena would increase on raising the temperature? (a) Diffusion, evaporation, compression of gases (b) Evaporation, compression of gases, solubility (c) Evaporation, diffusion, expansion of gases (d) Evaporation, solubility, diffusion, compression of gases 2. Seema visited a Natural Gas Compressing Unit and found that the gas can be liquefied under specific conditions of temperature and pressure. While sharing her experience with friends she got confused. Help her to identify the correct set of conditions (a) Low temperature, low pressure (b) High temperature, low pressure (c) Low temperature, high pressure (d) High temperature, high pressure 3. The property to flow is unique to fluids. Which one of the following statements is correct? (a) Only gases behave like fluids (b) Gases and solids behave like fluids (c) Gases and liquids behave like fluids (d) Only liquids are fluids 4. A few substances are arranged in the increasing order of 'forces of attraction' between their particles. Which one of the following represents a correct arrangement? (a) Water, air, wind (b) Air, sugar, oil (c) Oxygen, water, sugar (d) Salt, juice, air 5.Choose the correct statement of the following (a) Conversion of solid into vapours without passing through the liquid state is called vaporization. (b) Conversion of vapours into solid without passing through the liquid state is called sublimation.	• Critical Thinking, • Problem Solving, • Information Literacy

(c) Conversion of vapours into solid without passing through the liquid state is called freezing.

(d) Conversion of solid into liquid is called sublimation.

6. The boiling points of diethyl ether, acetone and n-butyl alcohol are 35°C, 56°C and 118°C respectively. Which one of the following correctly represents their boiling points in kelvin scale?

(a) 306 K, 329 K, 391 K

(b) 308 K, 329 K, 392 K

(c) 308 K, 329 K, 391 K

(d) 329 K, 392 K, 308 K

7. Which condition out of the following will increase the evaporation of water?

(a) Increase in temperature of water

(b) Decrease in temperature of water

(c) Less exposed surface area of water

(d) Adding common salt to water

8. In which of the following conditions, the distance between the molecules of hydrogen gas would increase?
(i) Increasing pressure on hydrogen contained in a closed container
(ii) Some hydrogen gas leaking out of the container
(iii) Increasing the volume of the container of hydrogen gas
(iv) Adding more hydrogen gas to the container without increasing the volume of the container

(a) (i) and (iii)

(b) (i) and (iv)

(c) (ii) and (iii)

(d) (ii) and (iv)

Short Answer Type Questions

1. A sample of water under study was found to boil at 102°C at normal temperature and pressure. Is the water pure? Will this water freeze at 0°C? Comment.
2. A student heats a beaker containing ice and water. He measures the temperature of the content of the beaker as a function of time. Which of the following (Fig. 1.1) would correctly represent the
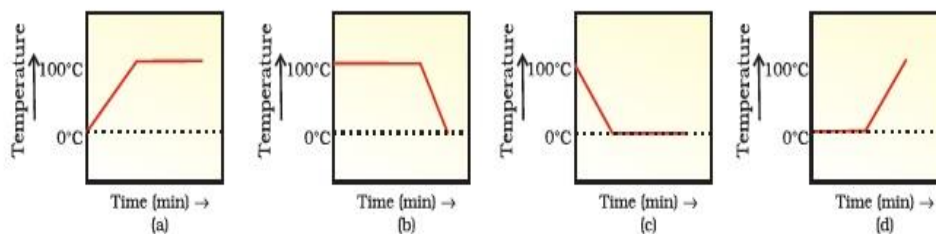
result? Justify your choice.

Fig. 1.1

3. Alka was making tea in a kettle. Suddenly she felt intense heat from the puff of steam gushing out of the spout of the kettle. She wondered whether the temperature of the steam was higher than that of the water boiling in the kettle. Comment.

4. Look at Fig. 1.3 and suggest in which of the vessels A,B, C or D the rate of evaporation will be the highest? Explain.
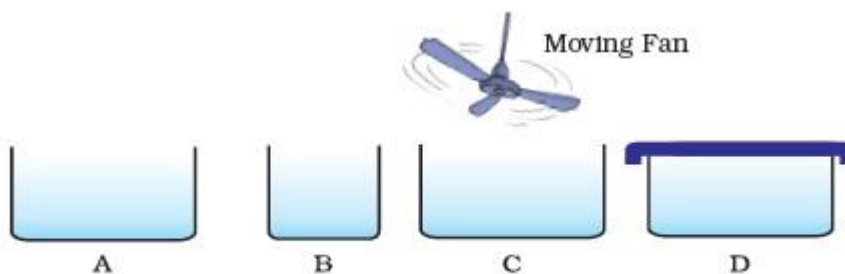

Fig. 1.3

LONG ANSWER TYPE QUESTIONS :

1. You are provided with a mixture of naphthalene and ammonium chloride by your teacher. Suggest an activity to separate them with well labelled diagram.

2. Comment on the following statements:

(a) Evaporation produces cooling.
(b) Rate of evaporation of an aqueous solution decreases with increase in humidity.
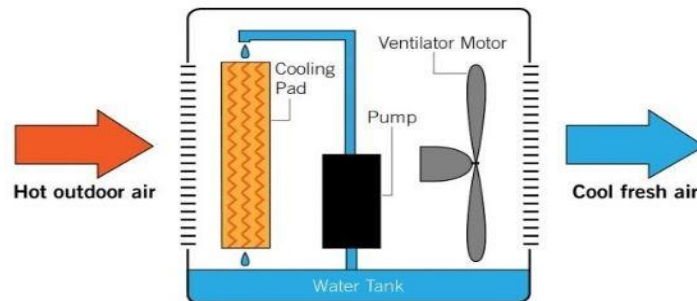(c) Sponge though compressible is a solid.

CASE STUDY BASED QUESTION :

Evaporative cooling is a ducted cooling system placed on top of your roof. Ducts that are connected to the rooms in your house receive cold air that travels through these ducts. In **Melbourne**, evaporative cooling is the most popular form of air conditioning because of its cost-efficiency. Evaporative cooling also gives you a lot of freedom and control in terms of your home's temperature and humidity levels.

Residents of **Melbourne** gravitate toward this type of unit because of our hot and dry climate. While that type of climate may be a challenge for other types of air conditioning units, **evaporative** cooling systems can work well in this environment.

i.) Evaporation is surface phenomenon. True or false

a.) True

b.) False

ii.) As temperature increases the rate of evaporation is

a.) increases

b.) decreases

c.) remains constant

d.) None of these

iii.) The rate of evaporation increases with

a.) Increase in wind speed

b.) Decrease in wind speed

c.) Does not have any effect from wind speed

d.) None of these

iv.) What happens when you pour some acetone (nail polish remover) on your palm?

v.) We are able to sip hot tea from saucer than from cup. Why?

Assignment: PHYSICS

Directions:

1. Solve the following problems in your **Physics copy.**

2. Write the questions down with a **black pen** and write the answers with a **blue pen**.

3. Draw a line after every problem using **ruler** and **pencil**.

4. Use **pencil** for drawing diagrams.

Questions:

1. Give one example of each of the following cases and explain with diagrams

   a) Zero displacement but non-zero velocity.

   b) Zero velocity but non-zero acceleration.

   c) Constant speed but varying velocity.

   d) Non-zero distance covered but zero displacement.

   e) Displacement equal to the distance covered.

2. Is uniform accelerated motion uniform motion? Explain.

3. We know that,

$$average\ velocity = \frac{total\ displacement}{total\ time}$$

In which specific condition we can say that,

$$average\ velocity = \frac{initial\ velocity - final\ velocity}{2}$$

4. We know that,

$$v = st$$

We also know that,

$$v = u + at$$

How can we have two different formulae for finding v? Explain?

5. A moving train is brought to rest within 20 seconds by applying brakes. Find the initial velocity, if the retardation due to brakes is $2m/s^2$.

6. A racing car has uniform acceleration of $4m/s^2$. What distance will it cover in 10 seconds after start?

7. A body starts to slide over a horizontal surface with an initial velocity of 0.5 m/s. Due to friction, its velocity decreases at the rate of 0.05 m/s^2. How much time will it take for the body to stop?

SUB- BIOLOGY

A. MULTIPLE CHOICE QUESTIONS-

1. Chromosomes are made up of

   i)   DNA

   ii)   Protein

   iii)   DNA and protein

   iv)   RNA

2. Plasmolysis in a plant cell is defined as-

   i)   Breakdown of plasma membrane in hypotonic medium

   ii)   Shrinkage of cytoplasm in hypertonic medium

   iii)   Shrinkage of nucleoplasm

   iv)   None of them

3. The undefined nuclear region of prokaryotes are also known as-

   i)   Nucleus

   ii)   Nucleolus

   iii)   Nucleic acid

   iv)   Nucleoid

B. REASON ASSERTION BASED QUESTIONS-

Two statements are given- one labelled Assertion (A) and other labelled as Reason (R). Select the correct option.

a) Both A and R are true and R is the correct explanation of A

b) Both A and R are true and R is not the correct explanation of A

c) A is true and R is false

d) A is false and R is true

1. A- Plasma membrane is selectively permeable.

R- It allows all the molecules to pass through it easily.

2. A- All cells come from pre-existing cells.

R- Cells divide to produce cells of their own kind.

C. CASE- BASED QUESTIONS-

1. Each cell has an outermost covering called cell membrane, which separates the contents of cell from its external environment. It is selectively permeable in nature. Plant cells have another rigid covering outside the plasma membrane called cell wall, which is made up of cellulose and provides structural strength to plants.

Based on the above passage answer the following questions.

(a) Cell wall is not found in the cell of

   i)   Bacteria

   ii)   Fungi

   iii)   Small plants

   iv)   Worms

(b) Plasma membrane is made up of

   i)   Lipids

   ii)   Proteins

   iii)   Cellulose

   iv)   Both (i) and (ii)

(c) Which of the following statements is correct?

i)   Cell wall is non-living whereas plasma membrane is living

ii)   Cell wall is living whereas plasma membrane is nonliving.

iii)   Both cell wall and plasma membrane are living.

iv)   Both cell wall and plasma membrane are nonliving.

2. All organisms are made up of cells. Each cell arises from the preexisting cells. These cells become specialized to perform different specialized functions after division. Cell is the basic fundamental, structural and functional unit of living organisms. Some cells have fixed shape whereas some keep changing their shapes.

Based on the above passage answer the following questions.

(a) Who first discovered cells with the help of primitive microscope?

     i)   Robert Brown

     ii)   Robert Hooke

     iii)   Purkinje

     iv)   Virchow.

(b) Identify the cells having changing shapes?

     i)   WBC

     ii)   Plant cell

     iii)   Paramecium

     iv)   None of the above.

(c) He expanded the cell theory by suggesting all cells arise from pre-existing cells

     i)   Purkinje

     ii)   Schleiden

     iii)   Schwann

     iv)   Virchow

D. DIAGRAM BASED QUESTION

i) Identify the cell organelle that is dark stained. Mention any one importance of that organelle.

ii) Name any 2 stains that can be used to colour the cells.

iii) Identify the part of the cell that is lightly stained. Mention its nature and function.

| SOCIAL SCIENCE | 1. **Disaster Management: 2022 AMARNATH FLOODS**

✓(Project content should be covered within 15 pages including coversheet, acknowledgement, Content, Bibliography)

✓Omit using Colours like–Red, pink, orange

✓Colours which could be used – Blue, Brown, Green, Violet, Black

✓You can use newspaper clippings, maps, diagrams and other relevant material.

✓The project has to be a handwritten project.

✓Project should be done in Practical Sheets and tied in a lace file provided by the school

GUIDELINES

The project should be done in the following chronology:

✓Cover Page –Name, Class, Section, Roll

✓Acknowledgement | • Social Skill
• Critical Thinking
• Creative
• Informative |

✓Content

✓Introduction –

✓Definition of Cyclone

✓Causes of Cyclone

✓Extent of damage to agriculture

✓Steps taken by the Govt. to combat drought

✓Organizations working to help the farmers

✓Dos and don'ts for next time to avoid such disasters

✓Conclusion

✓Bibliography

(Project should contain relevant information as guided above with pictures)

2. **THE FRENCH REVOLUTION** popularized many symbols .Each symbol depicted some basic value.

Draw and mention the symbols and their related values. .(**To be done on project papers : Portfolio**)

2. **POLITICAL SCIENCE**

1. What is democracy?

2. What are the features of democracy?

3. What steps were taken by General Pervez Musharraf in Pakistan to empower himself?

4. Why Pakistan cannot be called a democracy under General Musharraf?

5. How election in India is different from Mexico?

6. Giving examples from Mexico, prove that although having a democratic system, they are not practicing democracy.

7. "Election in China do not represent people's verdict." Explain.

8. "The principle of One person, One vote, One value is not followed in every country." Elaborate.

ASIAN INTERNATIONAL SCHOOL
SUMMER HOLIDAY HOMEWORK
CLASS IX
SESSION: 2022-2023

INFORMATION TECHNOLOGY	1. What is information technology? 2. What do you mean by BPO? 3. What do you mean by technology certification? 4. Explain the role of IT in education. 5. Write about BPM industry in India.	• Writing skills • Literary skills

N.B: Details of the Projects have been uploaded on ERP as well as shared on the official class What'app group.