

“ For I know the plans I have for you, declares the Lord, plans to prosper you and not to harm you, plans to give you hope and a future”. Jeremiah 29:11

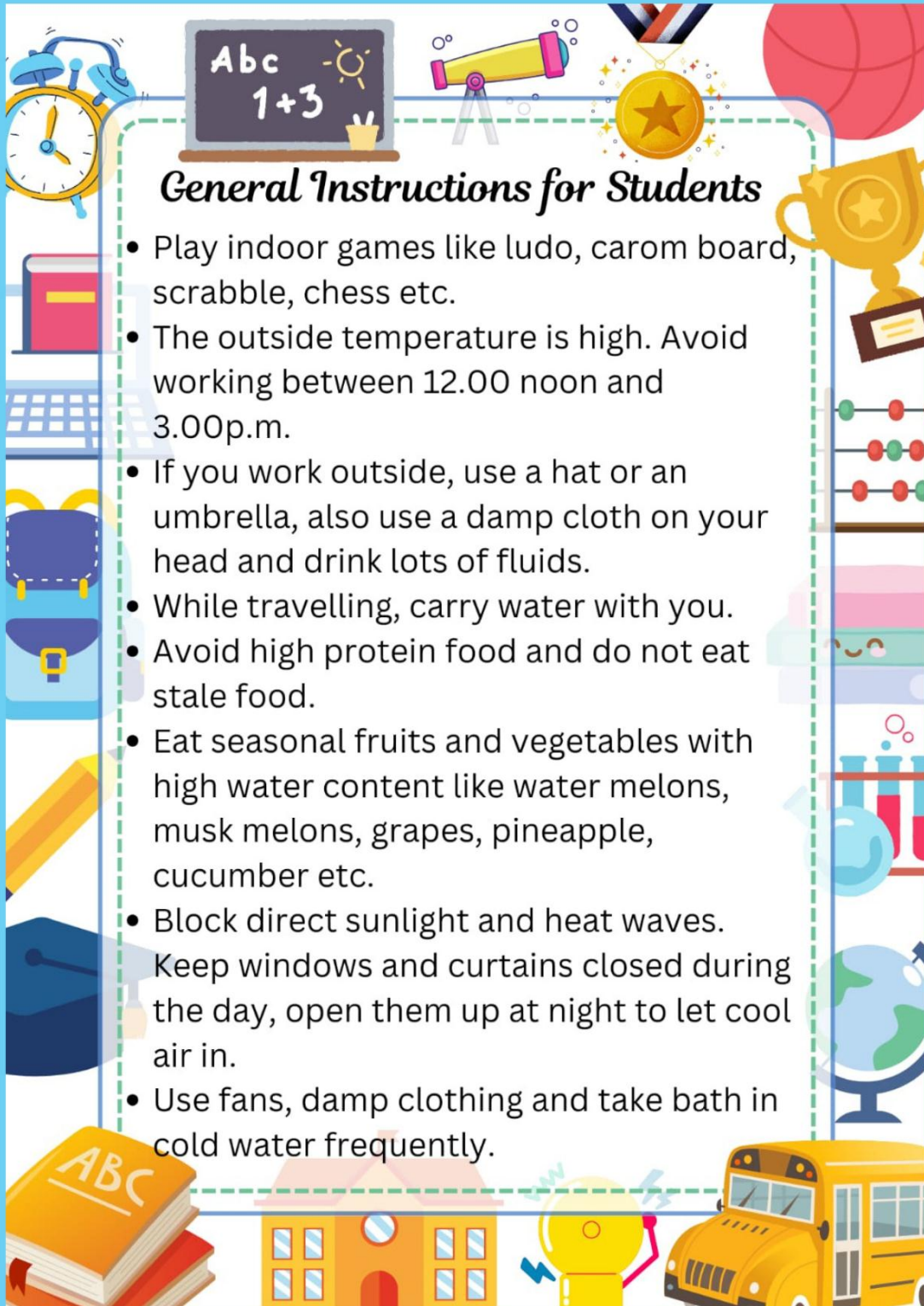


MOUNT CARMEL SCHOOL, CHANDIGARH

HOLIDAYS ASSIGNMENT SESSION 2024-2025 CLASS X

General Instructions for Holidays Homework:-

- Holiday Home Work should be done as per the instructions given.
- Assessment will be done based on originality, creativity, neat handwriting, presentation and submission of work on time.
- Revise all the concepts done so far.
- Parents are requested to encourage their ward to do their homework independently.
- Parents can extend guidance to their children if needed.
- Control Screen time: Do not let children spend too much time playing video games, instead encourage them to take up creative pursuits.
- Help them to understand the need to reduce wastage.



General Instructions for Students

- Play indoor games like ludo, carom board, scrabble, chess etc.
- The outside temperature is high. Avoid working between 12.00 noon and 3.00p.m.
- If you work outside, use a hat or an umbrella, also use a damp cloth on your head and drink lots of fluids.
- While travelling, carry water with you.
- Avoid high protein food and do not eat stale food.
- Eat seasonal fruits and vegetables with high water content like water melons, musk melons, grapes, pineapple, cucumber etc.
- Block direct sunlight and heat waves. Keep windows and curtains closed during the day, open them up at night to let cool air in.
- Use fans, damp clothing and take bath in cold water frequently.

ENGLISH:-

Create a brochure for a city tour(Chandigarh) with an eye-catching cover image that immediately draws the attention of the readers. Outline the best places to visit Chandigarh and the most exciting activities to do. Use bold text and headings to make the brochure easy to read and navigate. The brochure must-have resource for anyone planning to explore the city.

MATHS:-

NOTE: Complete the worksheet neatly on loose sheets (any type) for submission.

CHAPTER 2 – POLYNOMIALS

Q1. If one zero of the quadratic polynomial is $(k - 1)x^2 + kx + 1 = 0$ is -3. Find the value of k .

Q2. If α and β are the zeroes of the polynomial $x^2 + x + 1$, then find the value of $\frac{1}{\alpha} + \frac{1}{\beta}$ and $\alpha^2 + \beta^2$

Q3. If the product of the zeroes of the polynomial $ax^2 - 6x - 6$ is 4 , find the value of a .

Q4. Find k, if the sum of the zeroes of the polynomial $x^2 - (k + 6)x + 2(2k - 1)$ is half their product.

Q5. Find a quadratic polynomial whose zeroes are 1 and -3 . Verify the relation between the coefficients and zeroes of the polynomial.

Q6. If the sum and product of the zeroes of the polynomial $ax^2 - 5x + c$ is equal to 10 each, find the values of a and c.

Q7. If the zeroes of the polynomial $ax^2 + bx + c$ are in ratio 2 : 5 , then prove that $10b^2 = 49ac$

Q8. If α and β are the zeroes of the polynomial $2x^2 - x - 3$, then write the polynomial whose zeroes are α^2, β^2 .

Q9. If the zeroes of the polynomial $x^2 - lx + m$ are -2 and 3. Find l and m.

Q10. If sum of the zeroes of the polynomial $2x^2 - kx + 3$ is 2 , then find k .

CHAPTER 3 – A PAIR OF LINEAR EQUATIONS IN TWO VARIABLES

Q1. Find the value of k for which the system of equations have infinitely many solutions

$$x - ky = 2, 3x + 6y = 6$$

Q2. Find the value(s) of k so that the pair of equations $x + 2y = 5$ and $3x + ky = 15$ has a unique solution .

Q3. Find the value of k so that the equations $3x - y - 5 = 0$ and $6x - 2y - k = 0$ has no solution .

Q4. Check if the pair of linear equations $2ax + by = a, 6ax + 3by = 3a$; a, b not equal to 0 is consistent or inconsistent.

Q5. If $19x + 17y = 55$ and $17x + 19y = 53$, find $x + y$.

Q6. Solve : $101x + 99y = 501$ and $99x + 101y = 499$.

Q7. Solve : $ax + by = 2ab$ and $bx - ay = b^2 - a^2$. (use elimination method)

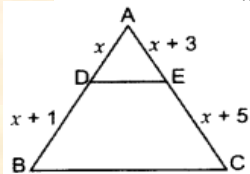
Q8. Solve : $x + y = p - q$, $px - qy = p^2 + q^2$

Q9. Solve the pair of linear equations : $ax + by = 2a - b$ and $x - y = 3$. (use elimination method)

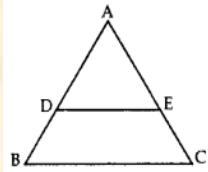
Q10. The expression $ax + by$ has value 2 if $x = 2$ and $y = 1$. It has value 10, if $x = 1$ and $y = -1$ find a and b.

CHAPTER – 6 TRIANGLES

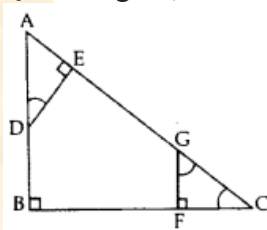
Q1. In $\triangle ABC$, $DE \parallel BC$, find the value of x .



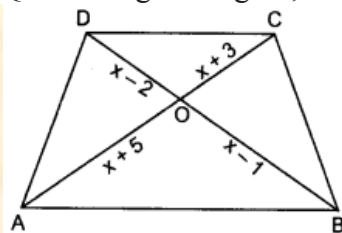
Q2. In the given figure, if $DE \parallel BC$, $AE = 8$ cm, $EC = 2$ cm and $BC = 6$ cm, then find DE .



Q3. In Figure, $AB \perp BC$, $FG \perp BC$ and $DE \perp AC$. Prove that $\triangle ADE \sim \triangle GCF$.

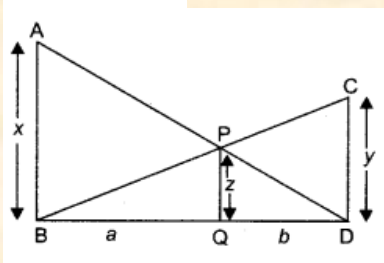


Q4. In the given figure, if $AB \parallel DC$, find the value of x .



Q5. In figure, $AB \parallel PQ \parallel CD$, $AB = x$ units, $CD = y$ units and $PQ = z$ units, prove that

$$\frac{1}{x} + \frac{1}{y} = \frac{1}{z}$$



Do the following activities in the Lab Manual

1. To find the zeroes of a quadratic polynomial geometrically.(Activity 1.2)
2. To verify experimentally a trigonometric identity.(Act2. To verify experimentally a trigonometric identity.(Activity 4.1)
3. To verify the Basic Proportionality Theorem .(Activity 3.1)

SCIENCE:-

1. Plant a sapling at your home on World Environment day (5th June, 2024). Water it regularly and take images of its regular growth. Make a collage of its images.
2. Prepare a model of any of the following:
 - Human Heart
 - Human Digestive System
 - Human Respiratory System
 - Human Excretory System
 - Structure of Nephron

Social Science:-

Project work

Prepare a project file (folder) on any one of the topics given below, paste relevant pictures, newspaper articles etc.

Consumer Rights

OR

Social Issues

OR

Sustainable Development

HINDI:-

(क) छुट्टियों में बिताए गए अविस्मरणीय 15 दिनों को डायरी के रूप में लिखिए।

(ख) वार्षिक पत्रिका हेतु किसी भी विषय पर स्वरचित कहानी, कविता या लेख लिखें।

PUNJABI:-

‘ਘਰ ਦਾ ਪਿਆਰ’ ਵਿਸ਼ੇ ਨੂੰ ਮੁੱਖ ਰੱਖ ਕੇ ਆਪਣੇ ਮਾਤਾ- ਪਿਤਾ, ਭੈਣ-ਭਰਾਵਾਂ ਨਾ ਖਿੱਚੀਆਂ ਤਸਵੀਰਾਂ ਲਗਾਓ ਤੇ ਉਹਨਾਂ ਨਾਲ ਆਪਣੇ ਪਿਆਰ ਨੂੰ ਉਜਾਗਰ ਕਰਦੇ ਕੁਝ ਵਾਕ ਲਿਖੋ।

COMPUTER APPLICATION:-

1. **Subject Enrichment- 5 marks** - (Marks will be included in the marks of Practical File)
Create a Web page in HTML using all the tags of HTML on the topic: “Any 5 festivals of Tripura, Mizoram and Union Territory, Chandigarh. Submit the Printout of the same in Practical file.
2. **Make following Documents for the I.T Practical File:-**
 - a) Make a simple web page displaying all types of lists and also use body tag attributes in the same page.
 - b) Project (that uses most of the concepts that have been learnt)
Pg 221 Project 1 with 2 Links
Each Printout should contain a proper heading and Printout of output and code.

GERMAN:-

Make a model of Berlin Wall of Germany .

The model can be made using Cardboards and Origami Sheets .