Dear Students, Class - IX

Warm greetings on the auspicious occasion of Durga Puja! 

A happiness, and good health.

As you enjoy your holidays with family and friends, make sure to also utilize your time productively. Your Holiday Homework has been designed to help you revise important concepts and enhance your skills.

Subject	Holiday Homework
ENGLISH	Notice Writing
	•Your school is closing for Durga Puja from 27 September to 04 October 2025. As the Cultural Secretary, draft a notice informing students about the holidays and reopening date.Wordlimit-50 words.  •Descriptive Paragraph Write a descriptive paragraph (120–150 words) on:  "The Pandal that Impressed Me the Most". Use at least 5 adjectives and 2 figures of speech (simile/metaphor).
	•Dialogue Writing (Holiday Homework) Imagine you meet your friend after the Durga Puja vacation. Write a dialogue between you and your friend in about 8–10 exchanges discussing:
	ΔThe pandals you visited ΔThe cultural programmes you attended ΔHow you celebrated with your family and friends ΔWhat you enjoyed the most during the festival
	Hints for Students:  •Use polite expressions and conversational tone
HINDI	<ol> <li>स्क्रैपबुक या चार्ट पेपर पर अर्थ के आधार पर वाक्य के आठ भेदों की परिभाषा एवं दो- दो उदाहरण लिखें।</li> </ol>

	अथवा
	समास की परिभाषा, भेद एवं भेद की परिभाषा पांच- पांच उदाहरण सहित लिखें। (स्क्रैपबुक या चार्ट पेपर पर।) 2) रसखान के सवैये अर्थ सहित याद करें।
SOCIAL SCIENCE	Geography  Q. Prepare a flowchart of Himalayan and peninsular rivers including its origin, tributaries,major cities and mouth, on a chart paper.  His/pol.
	Q.Explain the reasons for the rise of Hitler? Q.Write the features of a democratic government? Q.Explain the terms in brief:- a) Secular b) Republic c) Democratic
	Economics Q.Prepare a project on "Poverty: Causes, Effects and Remedies." The project must be neat, well-presented, and origin
I.T	Draw and explain Block diagram of CPU.     Write at least 10 MCQ on Topic:     Digital documentation     ICT skills     Communication skills (In practical copy)
A.I	Draw and explain Al project cycle.     Write and explain the Domain of Al .     Write at least 10 MCQ on Topic :     Communication skills     ICT skills     Introduction to Al  (In practical copy )
SCIENCE	CHEMISTRY
	On the project file draw and explain sublimation of Ammonium chloride.

	Differentiate solution, suspension and Colloid in project file.
	PHYSICS
	To solve all <b>physics</b> questions of the Half yearly exam in Homework Copy.
	BIOLOGY
	1) Draw the flow chart of plant and animal tissue on chart paper. Mention their location and function of each.  (Please do this project work in very attractive and innovative way for your good internal marks)  2) Practice term 1 question paper in HW copy.
SANSKRIT	प्रश्न 1. उच्चारण स्थान चाट पेपर में लखकर याद करें। प्रश्न 2. संस्कृत में संख्या 1से 50 तक याद करें लखकर आए। प्रश्न 3. पाठ 2 पाथेयम् से चार श्लोकों को लखकर याद करें।
MATHS	Case-Based Questions Case Study 1: Durga Puja Pandals (Number System)
	During Durga Puja, different pandals are decorated with lights. The electrician uses bulbs that consume rational and irrational units of power. For example, one decorative light consumes units of electricity, while another consumes units.
	Answer the following questions:
	1. Represent both the consumptions on a number line. 2. Which one is a rational number and which one is irrational? Why? 3. If the electrician installs 5 bulbs of each type, what will be the total electricity consumption? Express your answer in

simplified form.

Case Study 2: Pandal Decoration with Cloth (Polynomials)

A decorator is using a cloth to cover a triangular entrance of a pandal. The length of the cloth required can be represented by a polynomial

$$p(x) = 2x3 + 3x2 - 5x + 6$$

## Questions:

- 1. Find and interpret the result.
- 2. Verify whether (x-1) is a factor of p(x) or not
- 3. Factorize using the Factor Theorem.
- 4. If the cost of cloth per unit length is ₹50, find the cost when x=2.

Case Study 3: Food Stalls in Puja Fair (Linear Equations in Two Variables)

In a Durga Puja fair, a food stall sells two items:

Sweets at ₹20 each

Snacks at ₹10 each

On the first day, 10 items were sold for ₹160. On the second day, 8 items were sold for ₹120.

## Questions:

- 1. Form the pair of linear equations in two variables.
- 2. Solve them graphically to find the number of sweets and snacks sold on the first day.
- 3. If the stall owner wants to earn ₹200 on the third day by selling exactly 12 items, form the equation.
- 4. Check whether this condition has a unique solution.

Case Study 4: Puja Mandap Structure (Geometry – Lines & Angles)

The bamboo structure of a pandal is made using intersecting poles. Two poles intersect each other making vertically opposite angles.

## Questions:

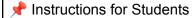
- 1. If one of the angles formed is 60 degrees, find all other angles.
- 2. A pole is standing on the ground making an angle with the base 30 degrees. Another pole leans on it making an angle of 30 degrees with the ground. Are these two poles parallel, perpendicular, or neither? Give reasons.

Case Study 5: Cultural Competition Stage (Mensuration – Heron's Formula)

A triangular stage is prepared for a dance competition during Durga Puja. The sides of the triangular stage measure 13 m, 14 m, and 15 m.

## Questions:

- 1. Find the semi-perimeter of the stage.
- 2. Using Heron's formula, calculate the area of the stage.
- 3. If each participant requires 1 m² of space, how many participants can stand together on the stage?
- 4. If the cost of decorating the stage is ₹200 per square metre, find the total decoration cost.



Attempt all questions in a separate holiday homework notebook.

Use diagrams wherever required.

Kindly complete it neatly and submit it on the first day after the vacation. Wishing you joyful celebrations and a fruitful break!