



H.C.J. ACADEMY
(Affiliated to ICSE/ISC (10+2) Board, New Delhi)
Janaura, Deokali Bypass Road, Ayodhya 224001
Summer Vacation Homework 2025-26

Class- 9th

Date:- 31-May-2025

English –Literature

Who is real hero of the play Julius Caesar. Prove it with your arguments.

Compare cassius and Brutus in about 250 words.

English Language

Note:- Do this Home Work in your fair copy.

i. From Roll no. 01 to 15

In the months of May and June many cities in North India reeled under extreme temperatures. After a month of scorching heat there were light rains followed by a downpour in your city. Describe the scene outside your window before and after the rains that brought respite from a long and intense spell of heat.

ii. From Roll no. 16 to 25.

Describe a family outing or vacation focusing on the journey too. What did you learn from the experience.

iii. From Roll no. 26 to 36.

Narrate an incident from your personal experience when fear made you behave in a weird manner and how you resolved to be more courageous the next time.

Chemistry

Q.1- Complete the following table:-

Acid radical -	Phosphate	Hydroxide	Carbonate	Sulphate	Nitrate
Magnesium	_____	_____	_____	_____	_____
Potassium	_____	_____	_____	_____	_____
Iron (II)	_____	_____	_____	_____	_____
Calcium	_____	_____	_____	_____	_____
Ammonium	_____	_____	_____	_____	_____
Silver	_____	_____	_____	_____	_____
Sodium	_____	_____	_____	_____	_____

Q.2- Make a periodic Table on a chart.

Q.3- Learn & write chemical balancing rule and solve minimum 10 question.

Q.4- Write a some chemical common name, chemical name and it formula. (1 to 50).

Q.5- Calculate molecular formula as given-

- | | | | |
|-----------------------------|-----------------------------------|---------------------|----------------------------|
| (i) H_2SO_4 | (ii) $(\text{NH}_4)_2\text{SO}_4$ | (iii) NH_3 | (iv) SO_2 |
| (v) H_2O | (vi) NaOH | (vii) KOH | (viii) SO_2 |
| (ix) CO_2 | (x) HNO_3 | (xi) HCl | (xii) H_2S |

Q.6- Calculate % of each element in compound –

- | | | | |
|--|-----------------------------|---|--|
| (i) $\text{Na}_2\text{CO}_3 \cdot 2\text{H}_2\text{O}$ | (ii) CaCO_3 | (iii) $\text{C}_6\text{H}_{12}\text{O}_6$ | (iv) $\text{C}_{12}\text{H}_{22}\text{O}_{11}$ |
| (v) H_2SO_4 | (vi) NH_4Cl | | |

Bio

Q. 1 Do you think Biology can help in further increasing the yield of food? If so, how

Q. 2 Differentiate between the following pairs of term

- (a) Protoplasm and cytoplasm
- (b) Centrosome and chromosom
- (c) Prokaryotic and Eukaryotic

Q.3. Explain the plant tissue and Animal tissue

Q .4 Differentiate plant cell and animal cell with diagram

Q .5 why are the cells generally of a small size

Project work - Pollution

Physical Education

- Make any 2 out of project.
- Yoga practice Report: Learn and practice 5 yoga asanas. Document benefits and precautions for each with photos/drawings.
- Poster Making: create a poster on 'Importance of Physical Fitness for Teenagers'.

Hindi

1. 'ऑन लाइन शॉपिंग का बढ़ता चलन' और इसके लाभ हानियों पर, अपना विचार लिखिए।
2. अपने जीवन की किसी एक अविस्मरणीय यात्रा का वर्णन कीजिए। (लगभग-250 शब्दों में लिखिए)

Maths

Q.1- if $x - \frac{1}{x} = 5$ find the value of

(i) $x^2 + \frac{1}{x^2}$ (ii) $x^4 + \frac{1}{x^4}$ (iii) $x^3 - \frac{1}{x^3}$

Q.2- if $x + 2y - 3 = 0$ then find $x^3 + 8y^3 + 6x^2y + 12xy^2 - 125$.

Q.3- if $x - \frac{1}{x} = 3 + \sqrt{2}$, find value of $\frac{1}{4} \left(x^2 - \frac{1}{x^2} \right)$

Q.4- factorise $(a^2 - b^2)(c^2 - d^2) - 4abcd$

Q.5- factorise $125a^2 - 27b^2 + 75a^2b - 75a^2b$

Q.6- solve by elimination, substitution, cross-multiplication method action method.

$$\frac{3x-7}{2} - \frac{2y-8}{3} = -1, \quad \frac{5-x}{3} - \frac{3-2y}{7} = 1$$

Q.7- solve, $\frac{1}{2(x+24)} + \frac{5}{3(3x-2y)} = \frac{-3}{2}$

$$\frac{5}{4(x+2y)} - \frac{3}{5(3x-2y)} = \frac{61}{60}$$

Q.8- In a two alight number the sum of the digit is 7. If the number with the order of the digit reversed is 28 greater than twice the unit is digit of the original number find number.

Q.9- A Boat sails a distance of 44km in 4 hours with the current. It takes 4 hour 48 minutes longer to cover the same distance against the current. find speed of boat in still water and speed g current.

Q.10- In a triangle ABC, $\angle C = 3\angle B = 2(\angle A + \angle B)$. Find all angles in degree.

NOTE:- Do in Fair copy.

Physics

1. The pith of a screw gauge is 0.5 mm and the head scale is divided in 100 parts. what is the least count of screw gauge?
2. The thimble of a screw gauge has 50 divisions. The spindle advances 1mm when the screw is turned through two revolutions.
 - (i) What is the pitch of the screw gauge?
 - (ii) What is the least count of the screw gauge?
3. The pitch of a screw gauge is 1 mm and its circular scale has 100 divisions. in measurement of the diameter of a wire, the main scale reads 2 mm and 45th mark on circular scale coincides with the base line. Find:
 - (i) the least count, and
 - (ii) The diameter of the wire.
4. When a screw gauge of least count 0.01 mm is used to measure the diameter of a wire, the reading on the sleeve is found to be 1 mm and the reading on the thimble is found to be 27 divisions. (i) what is the diameter of the wire in cm? (ii) If the zero error is + 0.005 cm, what is the correct diameter?
5. A screw gauge has 50 divisions on its circular scale and its screw moves by 1 mm on turning it by two rotations. when the flat end of the screw is in contact with the stud, the zero of circular scale lies below the base line and 4th division of circular scale is in line with the base line. Find: (i) the pitch, (iii) the least count and (iii) the zero error, of the screw gauge.

History

- Create a travel brochure of places in the Ramayana (Ayodhya, Panchavati, Lanka)
- Include Pictures, maps, mythological significance.
- cross topic: Combines History, Geography , Literature.

OR

- Task: Make Madhubani or Wasli style art based on scenes from the Ramayana.
- Integration: Art & culture with literature.

Geography

Q.1- Draw a neat diagram to show the following-

- a. Parallels of latitudes
- b. Temperate zones
- c. Earth's Grid

Q.2- With help of a diagram explain the characteristics of the revolute of the Earth?

Q.3- Draw a neat picture of volcanic mountain label any two materials ejected during an eruption.

Commerce-

- ❖ Basic Accounting terms
- ❖ Accounting principal
- ❖ Define the term 'CLEAR'
- ❖ Explain 'CLEAR' rule'
- ❖ Solve numerical problem from Question 1 to 25.
- ❖ Explain a case related with commercial activity witch you found from your surroundings.

Economics

Task – 1) (i). Form 40 MCQ from lesson (1 to 4).

(ii). Write the biography of Adam smith.

(iii). Explain the different economic entities.

Task-2) – Project work:-

- i. Observes your house or your neighbour's house and classify their activities in economic and non economic activities.
- ii. Visit any sector (Primary, Secondary and Tertiary) of economy and prepare a questionnaire, which type of work they are performing in economy, and how they are helping in the growth of the economy.

Computer

Java program to make Simple Calculator using following intimation mentioned below.

Description : Perform addition, subtraction multiplication, division.

Concept used: Switch case, user defined methods or member methods.

HAPPY SUMMER VACATION