

N.R.CONVENT SR. SEC. SCHOOL  
HOLIDAY HOME WORK  
CLASS - X



# Science

1. Learn NCERT (Intext +Exercise)question -answer of Ch-1,2,6,7,8 and 14.
2. Write the following practical in your Science lab Manual.

## **Experiments:-**

1. A. ph of samples – Pg. 17  
B. Prepration of acids and bases – Pg. 26
  2. Types of chemical reaction – Pg. 35
  3. Reactivity of Metals -Pg. 43
  4. Ohm,s law – Pg. 53
  5. A. Registers in Series - Pg.65  
B. Registers in Parrallel – Pg.74
  6. Stomata – Pg. 84
3. Students complete your science notebook (question answer of intext and exercise ) of ch-1,2,6,7,8 and 14

# S.Science

1. Complete the writing work of all subject of S.Science i.e
  - a. History ch-1, Rise of nationalism in Europe
  - b. Geography ch-1, Resources and development
  - c. Pol. Science ch-1, Power sharing and federalism
  - d. Economics ch-1, Development
1. Fill the atlas related to following chapters
  - a. History ch-1
  - b. Geography ch-2
1. Make a beautiful collage of our freedom fighters on A-3 size sheet.
2. Make a project file on following topics (any one) by pasting and drawing pictures and write about them – ( at least 7 pages)
  - a. Consumer rights
  - b. Sustainable development



ग्रीष्मावकाश गृहकार्य २०२०-२१

कक्षा दसवी विषय हिन्दी

\* रचनात्मक - कौशल (परियोजना पुस्तिका में करना है)

१. "रस" का विस्तार से वर्णन करो। सभी रसों के चित्र सहित समझाओ।

२. सुरदास और तुलसीदास का जीवन परिचय लिखो। चित्र सहित।

३. निबंध लेखन → \* युवा वर्ग का विदेशों के प्रति बढ़ता मोह  
\* बीता समय फिर लौटता नहीं

४. पत्र लेखन →

\* नगर में बढ़ती भीड़-भाड़ के कारण परिवहन की जटिल समस्या के हल के लिए सड़कों को और अधिक चौड़ा किए जाने की आवश्यकता पर बल देते हुए अपने राज्य के मुख्यमंत्री को पत्र लिखिए।

\* आपके शहर में सभी प्रकार के खाद्य-पदार्थों में मिलावट का धंधा लगातार बढ़ता ही जा रहा है। अपने राज्य के खाद्य मंत्री को पत्र लिखकर इस समस्या के प्रति उनका ध्यान आकृष्ट कीजिए।

५. विज्ञापन लेखन →

\* पर्यावरण के प्रति जागरूकता बढ़ाने के लिए लगभग ५० शब्दों में एक विज्ञापन तैयार कीजिए।

\* "एक्सपर्ट" मोबाइल फोन की बिक्री बढ़ाने हेतु विज्ञापन तैयार कीजिए।

पूरी दुनिया में फैली कोरोना जैसी महामारी का विस्तार पूर्वक वर्णन करो।



# English

- Revise tense, do the given assignments.
- Do practice of unseen passages.
- Write letter to editor of a newspaper about bad condition of city due to corona virus.
- Write letter to editor about evil effects of drinking.
- You are Kritika, a resident of D25, Jodha vihar, Cochi. Write a letter to your local newspaper editor describing how you organized old clothes donation camp for poor people.
- Learn all the chapters and poems done till now(Both literature and supplementary books)and do the related assignments of the chapters.
- Complete your all notebooks.
- Complete all grammar work in fair notebook.

# Computer

1. Write down the steps for booking a movie ticket online (write down in your notebook).
2. Which type of Computer Indian Railways use to interact with the customers for the various online functions like Booking, Cancellation, Showing the current status and so on. (Write down in your notebook).
3. Create a PPT on the following topic and format it using various effects. Divide the students in two groups  
->Odd Roll Number      ->Even Roll Number
  - A. The First group (Odd Roll No.) to prepare a PowerPoint Presentation on the topic-
    1. Web Server                      2. Web Browser                      3. Components of a website
  - B. The Second group (Even Roll No.) to prepare a presentation on the topic-
    1. Components of Web Page
    2. URL & its components
    3. Basic Internet Terminology
    4. Revise Chapter 1 and 2 whatever we have done in the notebook.



ASSIGNMENT (HOLIDAY HOMEWORK)

CLASS - X<sup>th</sup>

SUBJECT : MATHS.

CHAPTERS : POLYNOMIALS, L.E IN TWO VARIABLES

1. Find the zeroes of the following quadratic polynomials and verify the relationship between the zeroes and coefficients.

(i)  $x^2 - 2x - 8$

(ii)  $4s^2 - 4s + 1$

(iii)  $6x^2 - 3$

(iv)  $3x^2 - x - 4$

2. Find the zeroes of the following quadratic polynomial and verify the relationship between the zeroes and the coefficients.

(i)  $4\sqrt{3}x^2 + 5x - 2\sqrt{3}$

(ii)  $abx^2 + (b^2 - ac)x - bc$

(iii)  $v^2 + 4\sqrt{3}v - 15$

(iv)  $4x^2 + 5\sqrt{2}x - 3$

3. If  $\alpha$  and  $\beta$  are the zeroes of polynomial  $3x^2 + 5x - 2$ , then form a quadratic polynomial whose zeroes are  $2\alpha$  and  $2\beta$ .

4. If  $\alpha$  and  $\beta$  are two zeroes of the polynomial  $3x^2 - 4x + 1$  find a quadratic polynomial whose zeroes are  $\frac{\alpha^2}{\beta}$  and  $\frac{\beta^2}{\alpha}$ .

5. If  $\alpha$  and  $\beta$  are the zeroes of the quadratic polynomial  $3x^2 + 2x + 1$ , then find a quadratic polynomial whose zeroes are  $\frac{1-\alpha}{1+\alpha}$  and  $\frac{1-\beta}{1+\beta}$ .

6. If  $\alpha$  and  $\beta$  are the zeroes of polynomial  $2x^2 - 5x + 7$ , find the quadratic polynomial whose zeroes are  $2\alpha + 3\beta$  and  $3\alpha + 2\beta$ .

7. If  $\alpha$  and  $\frac{1}{\alpha}$  are the zeroes of the polynomial  $4x^2 - 2x + (k-4)$ . Find the value of 'k'.
8. If  $\alpha$  and  $\beta$  are the zeroes of quadratic polynomial  $x^2 - (k+6)x + 2(2k-1)$ . Find 'k' if  $\alpha + \beta = \frac{1}{2} \cdot \alpha\beta$ .
9. If  $\alpha$  and  $\beta$  are the zeroes of Polynomial  $P(x) = 2x^2 + 5x + k$ , satisfying the relation  $\alpha^2 + \beta^2 + \alpha\beta = \frac{21}{4}$ . Find the value of 'k'.
10. If  $\alpha$  and  $\beta$  are the zeroes of quadratic Polynomial  $P(x) = ax^2 + bx + c$ , then find the values of.
- $\alpha - \beta$
  - $\alpha^2 - \beta^2$
  - $\alpha^2 + \beta^2$
  - $\frac{1}{\alpha} + \frac{1}{\beta}$
  - $\frac{1}{\alpha^2} + \frac{1}{\beta^2}$
  - $\alpha^3 + \beta^3$
  - $\alpha^3 - \beta^3$
  - $\frac{1}{\alpha^3} + \frac{1}{\beta^3}$
  - $\frac{\alpha^2}{\beta} + \frac{\beta^2}{\alpha}$
  - $\alpha^4 + \beta^4$
  - $\frac{\alpha^3}{\beta} + \frac{\beta^3}{\alpha}$
11. If  $\alpha$  and  $\beta$  are the zeroes of Polynomial  $2x^2 - 4x + 5$  find the value of
- $\alpha^2 + \beta^2$
  - $\frac{1}{\alpha} + \frac{1}{\beta}$
  - $(\alpha - \beta)^2$
  - $\frac{1}{\alpha^2} + \frac{1}{\beta^2}$
  - $\alpha^3 + \beta^3$
12. If one zero of a quadratic Polynomial  $(a^2 + 9)x^2 + 13x + 6a$  is reciprocal of the other, find the value of a.
13. If  $\alpha, \beta$  are the zeroes of Polynomial  $P(x) = x^2 - 5x + 4$  find the value of  $\frac{1}{\alpha} + \frac{1}{\beta} - 2\alpha\beta$ .



14. If the polynomial  $x^4 + 2x^3 + 8x^2 + 12x + 18$  is divided by another polynomial  $x^2 + 5$ , the remainder comes out to be  $Px + Q$ . Find  $P$  and  $Q$ .
15. If the polynomial  $6x^4 + 8x^3 - 5x^2 + ax + b$  is exactly divisible by polynomial  $2x^2 - 5$ , then find the value of  $a$  and  $b$ .
16. If the polynomial  $x^4 + 6x^3 + 16x^2 - 25x + 10$  is divided by another polynomial  $x^2 - 2x + k$  the remainder comes out to be  $x + a$ , find the value of  $k$  and  $a$ .
17. Divide  $3x^2 - x^3 - 3x + 5$  by  $x - 1 - x^2$  and hence verify division algorithm.
18. Find all the zeroes of a cubic polynomial  $2x^3 + x^2 - 6x - 3$  if two of its zeroes are  $-\sqrt{3}$  and  $\sqrt{3}$ .
19. Obtain all the zeroes of  $3x^4 + 6x^3 - 2x^2 - 10x - 5$  if two of its zeroes are  $\sqrt{\frac{5}{3}}$  and  $-\sqrt{\frac{5}{3}}$ .
20. If two zeroes of polynomial  $P(x) = x^4 - 6x^3 - 26x^2 + 138x - 35$  are  $2 \pm \sqrt{3}$ . Find the other two zeroes.
21. Find ' $k$ ' so that  $x^2 + 2x + k$  is a factor of  $2x^4 + x^3 - 14x^2 + 5x + 6$ . Also find all the zeroes of the two polynomials.
22. If  $x^2 - 1$  is the factor of  $ax^4 + bx^3 + cx^2 + dx + e$ . Show that  $a + b + c + d + e = 0$ .
23. Obtain all the zeroes of  $x^4 - 7x^3 + 17x^2 - 17x + 6$  if two of its zeroes are 1 and 2.
24. Find all the zeroes of polynomial  $2x^4 - 3x^3 - 5x^2 + 9x - 3$  if two of its zeroes are 1 and 2.
25. Divide  $2x^4 - 9x^3 + 5x^2 + 3x - 8$  by  $x^2 - 4x + 1$  and verify the division algorithm.

26. On comparing the ratios  $\frac{a_1}{a_2}$ ,  $\frac{b_1}{b_2}$  and  $\frac{c_1}{c_2}$ , find out whether the following pairs of linear equations are consistent or inconsistent.

(i)  $3x + 2y = 5$  ;  $2x - 3y = 7$

(ii)  $2x - 3y = 8$  ;  $4x - 6y = 9$

(iii)  $\frac{3}{2}x + \frac{5}{3}y = 7$  ;  $9x - 10y = 14$

(iv)  $5x - 3y = 11$  ;  $-10x + 6y = -22$

27. Solve  $2x + 3y = 11$  and  $2x - 4y = -24$  and hence find the value of 'm' for which  $y = mx + 3$ .

28. Solve the following equations by equating their coefficients.

(i)  $4x - 3y - 8 = 0$  ;  $6x - y - \frac{29}{3} = 0$

(ii)  $7x - 8y - 11 = 0$  ;  $8x - 7y - 7 = 0$

(iii)  $3x + 2y = \frac{11}{3}$  ;  $-7x + 5y = \frac{31}{3}$

(iv)  $4x + 7y = 20$  ;  $21x - 13y = 21$

(v)  $23x - 17y + 11 = 0$  ;  $31x + 13y - 57 = 0$

29. Solve for x and y.

$$217x + 131y = 913$$

$$131x + 217y = 827$$

30. Solve for x and y.

$$\frac{148}{x} + \frac{231}{y} = \frac{527}{xy}$$

$$\frac{231}{x} + \frac{148}{y} = \frac{5610}{xy}$$



31. Solve for 'x' and 'y':

$$\begin{aligned} \text{(i)} \quad 5x + 31y &= 103 \\ 31x + 5y &= 77 \end{aligned}$$

$$\text{(ii)} \quad 31x + 43y = 117$$

$$43x + 31y = 105$$

$$\text{(iii)} \quad 99x + 101y = 499$$

$$101x + 99y = 501$$

$$\text{(iv)} \quad 254x + 309y = -55$$

$$309x + 254y = -55$$

32. Solve the following L.E. by cross multiplication method.

$$\text{(i)} \quad 2x + 3y = 7 \quad ; \quad 6x - 5y = 11$$

$$\text{(ii)} \quad 3x - 5y = 20 \quad ; \quad 7x + 2y = 17$$

$$\text{(iii)} \quad 7x - 2y = 3 \quad ; \quad 11x + \frac{3}{2}y = 8$$

$$\text{(iv)} \quad 6x + 5y = 11 \quad ; \quad 9x + 10y = 21$$

33. Solve the following equations

$$\text{a)} \quad x + y = a + b \quad ; \quad ax - by = a^2 - b^2$$

$$\begin{aligned} \text{b)} \quad a(x+y) + b(x-y) &= a^2 - ab + b^2 \\ a(x+y) - b(x-y) &= a^2 + ab + b^2 \end{aligned}$$

$$\text{c)} \quad \frac{x}{a} + \frac{y}{b} = 2 \quad ; \quad ax - by = a^2 - b^2$$

$$\text{d)} \quad \frac{x}{a} + \frac{y}{b} = a + b \quad ; \quad \frac{x}{a^2} + \frac{y}{b^2} = 2$$

34. Solve the following equation.

$$ax + by = 1$$

$$bx + ay = \frac{(a+b)^2}{a^2+b^2} - 1$$



35. Solve the following pair of equations by cross multiplication method.

$$2(ax - by) + a(4b) = 0$$

$$2(bx + ay) + b - (4a) = 0$$

36. For what value(s) of  $a$  and  $b$  does the following pair of linear equation have an infinite number of solutions

$$2x + 3y = 7 \quad ; \quad (a-b)x + (a+b)y = 3a+b-2$$

37. For what value of  $k$  the following equation has no solution.

$$3x + y = 1 \quad ; \quad (2k-1)x + (k-1)y = 2k+1$$

38. Find the value of ' $k$ ' for which the pair of equations has no solution

$$kx + 3y = k-2 \quad ; \quad 12x + ky = k$$

39. Find the value of  $a$  and  $b$  for which the pair of equation has infinitely many solution.

$$2x - 3y = 7 \quad (a+b)x - [(a+b)-3]y = 4a+b$$

40. For what value of ' $p$ ' the system of equation has no solution.

$$3x + y = 1 \quad ; \quad (2k-1)x + (k-1)y = 2k+1$$

→ For what value of  $k$  the following equations has infinitely many solutions

$$41. \quad x + (k+1)y = 4 \quad ; \quad (k+1)x + 9y = 5k+2$$

$$42. \quad 2x + 3y = 7 \quad ; \quad (k-1)x + (k+2)y = 3k$$

$$43. \quad x + (k+1)y = 5 \quad ; \quad (k+1)x + 9y = 8k-1$$

$$44. \quad (k-3)x + 3y = k \quad ; \quad kx + ky = 12$$

45. For what value of  $P$ , the following system of equation has no solution.

$$\frac{x+Py+3}{x-y-3} = -\frac{3}{2} ; \quad 3x+2y=5$$

46. If  $4a+3b=65$ ; and  $a+2b=35$ . Find the value of  $a/b$ .

47. Solve the following equations.

(i)  $\frac{x}{3} - \frac{2}{x+y} = 1$

$$\frac{x}{4} + \frac{3}{x+y} = 3$$

(ii)  $\frac{14}{x+y} + \frac{3}{x-y} = 5 ; \quad \frac{21}{x+y} - \frac{1}{x-y} = 2$

(iii)  $\frac{x+7}{3} - y = \frac{y-1}{2} + x = \frac{1}{6}(x+y)$

(iv)  $\frac{1}{2(x+2y)} + \frac{5}{3(3x-2y)} = \frac{3}{2}$

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

48. Solve ;  $2\frac{y}{x} + 3 = 2y$  ;  $5\frac{y}{x} + 8 = \frac{31}{6}y$ .

49.  $\frac{x+y}{xy} = 2$  ;  $\frac{x-y}{xy} = 6$ . Find  $x$  and  $y$ .

50. Find  $u$  and  $v$ .

$$2u+15v=17uv$$

$$5(u+v) = 36uv$$



Work from NCERT

1. Practice chapter - 2 (Polynomials)

Exercise - 2.2

Exercise - 2.3

Exercise - 2.4

2. Practice chapter - 3 (L.E in two variables)

Exercise - 3.2

Exercise - 3.3

Exercise - 3.4

Exercise - 3.5

Exercise - 3.6

Note:- - Test will be taken from above syllabus  
after opening of school.

- Do all questions properly in your notebook.



Stay  
HOME  
Stay  
SAFE

