

## HOLIDAY HOMEWORK CLASS 10:

### ENGLISH

1. Letter to Editor

2. Story writing

#### SCRAPBOOK ACTIVITIES:

3. Research on, select and write any one poem by the following poets:

a. Robert Frost

b. Walt Whitman

c. Read a story by any one of the following authors and write a critical appreciation/summary of the same:

a. HG Wells

b. Anton Chekov

c. James Herriot

### MATHS

#### CHAPTER- LINEAR EQUATIONS IN TWO VARIABLES

1. For what value of k will the following system of equations have infinitely many solutions:-

i.  $3x + 2y = 1$ ,  $(2k+1)x + (k+2)y = k-1$  (Answer:  $k=4$ )

ii.  $x + (k+1)y = 5$ ,  $(k+1)x + 9y = 8k-1$  (Answer:  $k=2$ )

iii.  $(kx+3y) - (k-3) = 0$ ,  $12x + ky - k = 0$  (Answer:  $k=6$ )

2. For what value of k the following system of equations have no solution:-

i.  $8x + 5y = 9$ ,  $kx + 10y = 15$  (Answer:  $k=16$ )

ii.  $kx + 3y = 3$ ,  $12x + ky = 6$  (Answer:  $k=-6$ )

iii.  $4x + 6y = 11$ ,  $2x + ky = 7$  (Answer:  $k=3$ )

3. Solve for x & y:-

i.  $7x + 5y = 74$ ,  $7x+1 - 5y+1 = 218$  [Hint: Take  $7x=p$  and  $5y=q$ ] (Answer:  $x=2$ ,  $y=3$ )

ii.  $47x + 31y = 63$ ,  $31x + 47y = 15$  (Answer:  $x=2$ ,  $y=-1$ )

iii.  $37x - 39y = 150$ ,  $39x - 37y = 154$  (Answer:  $x=3$ ,  $y=-1$ )

4. 8 men and 12 boys can do a piece of work in 10 days while 6 men and 8 boys can do the same work in 14 days. Find the time taken by a single man and a single boy to do the same work. (Answer: Single man-140 days, single boy-280 days)

5. If twice the son's age in years added to the father's age, the sum is 70. But if twice the father's age is added to the son's age, the sum is 95. Find the ages of father and son.

(Answer: Father's age=40, son's age=15)

6. A motor boat takes 6 hours to cover 100km downstream and 30km upstream. If the boat goes 75km downstream and return back to the starting point in 8 hours, find the speed of the boat in still water and speed of stream. (Answer: speed of stream= 5km/hour, speed of boat in still water= 20km/hour)

7. A passenger train takes 2 hours less for a journey of 300km. If its speed is increased by 5km/hour from its usual speed. Find its usual speed. (Answer: 25km/hr)

8. The sum of a two digit number and the number obtained by reversing the order of its digits is 165. If the digits differ by 3, find the number. (Answer: 69)

## POLYNOMIALS

- Obtain all zeroes of  $x^4+2x^3-7x^2-8x+12$  if two of its zeroes are 2 and -2. (Answer: -3, 1).
- If  $\alpha$  and  $\beta$  are the zeroes of the polynomial  $2x^2-4x+5$ , then find the value of
  - $\alpha + \beta$  (Answer: -1)
  - $\alpha\beta$  (Answer: )
  - $(\alpha-\beta)^2$  (Answer: -6)
  - $\alpha^2 + \beta^2$  (Answer:)
- Find the quadratic polynomial whose zeroes are given below:-
  - 5, 6 (Answer:  $x^2-11x+30$ )
  - $\frac{1}{2}, \frac{1}{3}$  (Answer:  $4x^2-4x-3$ )
  - $\frac{1}{2}, \frac{1}{3}$  (Answer:  $7x^2-22x+32$ )
- If  $\alpha, \beta$  are the zeroes of polynomial  $x^2+8x+6$ , form the polynomial whose zeroes are:-
  - $\frac{1}{\alpha}, \frac{1}{\beta}$  (Answer:  $36x^2-52x+1$ )
  - $\alpha^2, \beta^2$  (Answer:  $6x^2+8x+1$ )
  - $\alpha+1, \beta+1$  (Answer:  $3x^2-32x+32$ )
- Find a quadratic polynomial whose sum of zeroes and products of zeroes are respectively:-
  - $\frac{1}{2}, \frac{1}{3}$  (Answer:  $x^2-2x+1$ )
  - $\frac{1}{2}, -4$  (Answer:  $3x^2-x-12$ )
  - $\frac{1}{2}, -3$  (Answer:  $2x^2-x-6$ )
- Find all other zeroes of the polynomial  $p(x) = 2x^3+3x^2-11x-6$  if one of its zeroes is -3 (Answer: 2,)
- If one zero of  $4x^2-9-8kx$  is negative of the other, find k. (Answer:  $k=0$ )
- If one zero of the polynomial  $(a^2+9)x^2+13x+6a$  is reciprocal of the other, find the value of a. (Answer:  $a= 3$ )
- If  $\alpha$  &  $\beta$  are the zeroes of  $p(x) = x^2-5x+6$  then find the value of  $\frac{1}{\alpha} + \frac{1}{\beta}$  (Answer= -13)

## Class X-SCIENCE

- Make a portfolio on topic ( Life Processes) of Biology.
- Revise chapter 1( Chemistry) for multiple assessments
- Complete practical files as per experiments done.

## SOCIAL SCIENCE- CLASS X (2019-20)

- A 1. Every student has to compulsorily undertake any one project on the following topics:  
Consumer Awareness OR Social Issues OR Sustainable Development
- Objective: The overall objective of the project work is to help students gain an insight and pragmatic understanding of the theme and see all the Social Science disciplines from interdisciplinary perspective. It should also help in enhancing the Life Skills of the students. Students are expected to apply the Social Science concepts that they have learnt over the years in order to prepare the project report.  
If required, students may go out for collecting data and use different primary and secondary resources to prepare the project. If possible, various forms of art may be integrated in the project work.

3. The distribution of marks over different aspects relating to Project Work is as follows:

S. No.	Aspects	Marks
a.	Content accuracy, originality and analysis	2
b.	Presentation and creativity	2
c.	Viva Voce	1

4. The projects carried out by the students in different topics should subsequently be shared among themselves in their respective class through interactive sessions such as exhibitions, panel discussions, etc.

5. All documents pertaining to assessment under this activity should be meticulously maintained by concerned schools.

6. A Summary Report should be prepared highlighting: • objectives realized through individual work and group interactions;

7. It is to be noted here by all the teachers and students that the projects and models prepared should be made from eco-friendly products without incurring too much expenditure.

8. The Project Report should be handwritten by the students themselves.

**B** Students also need to collect information about the Lok Sabha Elections from the News Papers

and Magazines for the interactive bulletin board activity which will be done in the class after the summer break.

ग्रीष्मावकाशकालीन गृह-कार्य:-(2019-2020)

विषय – संस्कृत-कक्षा – 10

1. किसी भी विषय पर संस्कृत-गीत स्मरण करें।
2. सचित्र लघु कथा –  
संस्कृत-भाषा में 10 वाक्यों में एक लघु कथा सचित्र अपनी उत्तर-पुस्तिका में लिखें।
3. पाठित व्याकरणिक विषयों का अभ्यास करें।

### **French**

- 1) 2 exercises of every grammar topic taught in NB
- 2) Description of how they will spend the vacations and they will come and speak.(80 to 90 words).
- 3) Write about the education system of France by going beyond the school book information.
- 4) Write any fable of your choice in passe compose and imparfait around 100 words decorated and written creatively.

### **ART**

Topic-Make any folk art of India

Size-A3

### **Vocational Subject**

## **MEDIA**

Create a portfolio on the topic how vocational subject media or digital art is helpful in education and career. What are the applications of this field.

## **IT**

- 1 Using MS outlook, schedule a calendar for the month of October in your Fixture. Use separate colour themes for holidays, educational and fun activities. Also set at least 2 to 3 appointments. One of them with the teacher and the other with the counselor. Mark the appointment with the teacher as recurring one.
- 2 Complete the Excel worksheet and paste the hand-out in practical file.
- 3 Design a chart based on the chapter – Network as per the specific topic assigned to you.

## **FOOD PRODUCTION**

Pictorial presentation of of different types of nutrients (Project Work)