



Std.~IX

Written Work

ENGLISH : 1. Scrap book work

TOPIC – Seek satisfaction in everything!!!

Click pictures of the following and write your emotions when you see them-

Sunrise sunset, blooming flower, trees, your mom while cooking, father when getting ready for office, siblings when dozing off, street dogs, surprise by friends, etc. Appreciate the world around you and be close to find yourself.

Pictures : 20-30

2. Write article on :

a) Cybercrimes (Roll no. 1 - 10)

b) Human Rights (Roll no. 11 - 20)

c) Role of women in growing society (Roll no. 21 - 30)

d) Four Pillars of Democracy (Roll no.31 - 40)

Revise the covered Syllabus.

हिन्दी

: 1. 'ल्हासा की ओर' यात्रा वृत्तांत के आधार पर अपने द्वारा की गई किसी यात्रा का अपने शब्दों में वर्णन कीजिए।

2. देश में होने वाली विभिन्न समस्याओं को ध्यान में रखते हुए किसी एक समस्या पर दो मित्रों के मध्य संवाद लेखन कीजिए।

Revise the covered Syllabus.

MATHS

Chapter 1 Number System :

Q.1 Write the relation between a and b if $x^{a-b} = 1$.

Q.2 Find the value of x and y if $\frac{\sqrt{5}-2}{\sqrt{5}+2} - \frac{\sqrt{5}+2}{\sqrt{5}-2} = x - y\sqrt{5}$

Q.3 Represent 3.7264 on number line using linear magnification.

Q.4 Convert the following decimals into $\frac{p}{q}$ form. Where p and q are integers , $q \neq 0$.

(a) $3.\bar{1}$

(b) $35.10\bar{3}$

(c) $4.3\bar{1}$

(d) $2.\bar{6}$

Q.5 Convert (a+b) into $\frac{p}{q}$ form if $a = 1.3\bar{2}$ and $b = 0.3\bar{5}$.

Q.6 Represent $\sqrt{8.7}$ on number line using compass and ruler.

Q.7 Prove that: $\left[\frac{x^a}{x^b}\right]^c \times \left[\frac{x^b}{x^c}\right]^a \times \left[\frac{x^c}{x^a}\right]^b = 1$

Q.8 Given $4725 = 3^a \times 5^b \times 7^c$

Chapter 3 Coordinate Geometry

- Q.1 Categorize the following point according to their quadrant or axis –
 (a) (-4,3) (b) (0,3) (c) (1,-7) (d) (0,5/3) (e) (1,1) (f) (-0.2,-0.7)
- Q.2 Find out the following for the point (-3,8):
 (a) Abscissa (b) Ordinate
 (c) quadrant (d) Normal distance from X axis
 (e) Normal distance from y axis
- Q.3 Plot the following points on graph , join all these points , what type of figure will you obtain.
 (a) (-2,6) (b) (5,-3) (c) (-3,-3) (d) (3,6)
 Also check whether the points (-2,-5) and (3,9) will lie on the figure or not ?

Chapter 14 Statistics

- Q.1 If the mean of the following distribution is 6, then find the value of p.
- | | | | | | |
|---|---|---|---|----|-----|
| x | 2 | 4 | 6 | 10 | p+5 |
| f | 3 | 2 | 3 | 1 | 2 |
- Q.2 If the mean of five observations $x, x+2, x+4, x+6, x+8$ is 11 find the mean of first three observation.
- Q.3 The mean of 5 numbers is 18. If one number is excluded, their mean is 16, find the excluded number.
- Q.4 The following observations have been arranged in ascending order. If the median of the data is 63, find the value of x . 29, 32, 48, 50, $x, x+2, 72, 78, 84, 95$.
- Q.5 A random survey of the number of children of various age groups playing in a park was found as follows:
- | | | | | | |
|-----------------|-----|------|-------|-------|-------|
| Age(in years) | 5-7 | 7-10 | 10-15 | 15-17 | 17-19 |
| No. of children | 12 | 9 | 10 | 4 | 6 |
- Make a class marks column. Draw the histogram and frequency polygon of the given information on the graph paper.
- Q.6 The mean of the following distribution is 50.
- | | | | | | |
|-------|----|--------|----|---------|----|
| X_i | 10 | 30 | 50 | 70 | 90 |
| F_i | 17 | $5p+3$ | 32 | $7p-11$ | 19 |
- Q.7 The temperature in $^{\circ}F$ on 20 days during the month of June was as follows:
 $70^{\circ}F, 76^{\circ}F, 76^{\circ}F, 74^{\circ}F, 70^{\circ}F, 70^{\circ}F, 72^{\circ}F, 74^{\circ}F, 78^{\circ}F, 80^{\circ}F, 74^{\circ}F, 74^{\circ}F, 78^{\circ}F, 76^{\circ}F, 78^{\circ}F, 76^{\circ}F, 74^{\circ}F, 78^{\circ}F, 80^{\circ}F, 76^{\circ}F$
 Make the frequency distribution table. What is the mean, median and mode of the temperatures for the 20 days of the month of June?

Chapter 15 Probability

- Q.1 A tyre manufacturing company kept a record of the distance covered before a tyre needed to be replaced. The table shows the results of 1000 cases.
- | | | | | |
|------------------|----------------|--------------|---------------|-----------------|
| Distance (in km) | less than 4000 | 4000 to 9000 | 9001 to 14000 | more than 14000 |
| Frequency | 20 | 210 | 325 | 445 |
- If you buy a tyre of this company, what is the probability that :
- (a) It will need to be replaced before it has covered 4000 km?
 (b) It will last more than 9000 km?
 (c) It will need to be replaced after it has covered somewhere between 4000 km and 14000 km?
- Q.2 Three coins are tossed simultaneously 200 times with the following frequencies of different outcomes:
- | | | | | |
|-----------|---------|---------|--------|---------|
| Outcome | 3 heads | 2 heads | 1 head | No head |
| Frequency | 23 | 72 | 77 | 28 |
- If the three coins are simultaneously tossed again, compute the probability of getting–
 (a) 2 Heads (b) 3 tails (c) atleast 2 heads.
- Q.3 What will be the probability of choosing a family randomly out of 400 families with 0,1,2,3 children.
- | | | | | |
|-----------------|----|-----|----|----|
| No. of children | 0 | 1 | 2 | 3 |
| No. of families | 30 | 140 | 60 | 70 |
- (a) Family with 0 children (b) Family with 1 children
 (c) Family with 2 children (d) Family with more than 1 child

Q.4 A survey conducted by an organization for the cause of illness and death among the women between the ages 15 - 44 (in years) out of 1000 women worldwide, found the following figures (in number):

S.No.	Causes	Female fatality rate (%)
1.	Reproductive health conditions	175
2.	Neuropsychiatric conditions	125
3.	Injuries	150
4.	Cardiovascular conditions	450
5.	Respiratory conditions	100

Find the probability that the cause of illness or death is-

- (a) Reproductive health conditions
- (b) Cardiovascular or neuropsychiatric conditions
- (c) Not injuries

Revise the covered Syllabus.

SOCIAL SCIENCE

IX A : 3 D model on features made by rivers. (*Ex. : Ox-Bow Lake, Meandee, Delta*)

IX B : Working model- paper mache smoking & foaming volcano

IX C : Model of step farming in hills. (*Mixed Cropping, Inter Cropping*)

Revise the covered Syllabus.

SCIENCE: PROJECTS :

- A. Water conservation- Drip irrigation/Rain water harvesting working model
- B. Automatic/ solar street light- prepare working model
- C. E waste management
- D. Transformation of energy
- E. Sustainable development –Suggestion supportive ideas
- F. Solar system – Solar Eclipse / Lunar Eclipse

IX A : Project B and D
IX B : Project A and F
IX C : Project C and E

Prepare project report and presentation.

Revise the covered Syllabus.

INFORMATION TECHNOLOGY (IT)

- 1. Make the powerpoint presentation on any topic .
- 2. Maintain your practical file.
- 3. Do the question answers of Unit II in copy.
- 4. Learn the solved questions of Unit II given in book.
- 5. Complete the all exercises of Unit I given in book.

Revise the covered Syllabus.

Note : All holiday home-work should be done in a separate File.

Wednesday, 27th June, 2018	→	School re-opens after Summer break.
Timings	→	07:50 a.m. to 01:30 p.m.

*Office will remain open during Summer Vacation.
Contact school office from : 08:00 a.m. to 12:00 Noon.*



Std.~X

Written Work

- ENGLISH** : 1. Prepare self-written articles, poems and stories based on social, national, international and current issues to be published in the daily newspaper, The Times of India.
2. As an editor of an English newspaper, prepare newspaper highlighting all the columns using colourful pictures.

Revise the covered Syllabus.

- हिन्दी** : 1. अपनी पाठ्यपुस्तक 'कृतिका' को पढ़िए तथा उस पर आधारित दिए गए कार्य को नियमबद्ध तरीके से संपादित कीजिए।

1. माता का आंचल 2. जार्ज पंचम की नाक 3. साना-साना हाथ जोड़ें

तीनों पाठों में से किसी एक पाठ को आधार बनाकर कथानक (Script) संवाद के रूप में निर्माण करिए तथा प्रचार-प्रसार हेतु विज्ञापन की सचित्र व रंगीन रचना कीजिए।

2. हिंदी समाचार-पत्र का निर्माण कीजिए तथा यह भी ध्यान रखिए कि उसमें प्रसंग, ज्ञानवर्द्धक, पहेली, लेख, कविता आदि को भी संलग्न करें। (A-3 Size, No. of Pages 4)

Revise the covered Syllabus.

SCIENCE

General Instructions :

- 20 Students will prepare a model and a chart on the allotted topics. there will be 5 groups of 4 students each for model making.
- The model to be prepared should have a strong base.
- The chart related to the model should be made on white pastel sheet.
- 10 students will prepare a subjective project report on the allotted topics. The project report should be made neatly on A3 size ruled coloured drawing sheets.
- Project report to be prepared by the students should be subjective (inclusive of pictures).
The format of the project report is as follows:-
 - Aim
 - Material required
 - Principle
 - Procedure
 - Working
 - Application
 - Cost of the model
 - Supporting pictures
 - Circuit Diagram (if required)
- The project report will be prepared individually by the students.
- 10 students will prepare a magazine which is to be made on A4 size coloured sheets with picture and detailed information about the topic.
- The magazine will be prepared individually by the students.

S. No.	Class X (Model and project topics)	Parameters
1.	Model on energy production-conservation efficient methods (Model)	Energy conservation methods- bio fuels, waste fermentation, energy from water or magnetic electricity etc.
2.	Model on water conservation techniques in agriculture (Model)	Smart fields, drip irrigation, modern irrigation techniques to save water or any other
3.	Model on IT controlled gadgets (Model)	Remote controlled cars, smart phone controlled gadgets or any other.
4.	Report on conservation of resources in industry (Report)	Gasifire, paper industry, automobile industry, aviation industry or any other
5.	Magazine on Energy conservation designs of furniture/buildings/machines (Magazine)	Green buildings (Apple, Google and Teri buildings)

MATHS

Chapter 1 Real Numbers

- Q.1 If the H C F of 657 and 963 is expressible in the form of $657x + 963(-15)$ find x.
- Q.2 Solve $\sqrt{18x} \sqrt{50}$. What type of number is it, rational or irrational?
- Q.3 Prove that $\frac{1}{2-\sqrt{5}}$ is irrational number.
- Q.4 Without actually performing the long division, find if $987/10500$ will have terminating or non-terminating (repeating) decimal expansion. Give reasons for your answer.
- Q.5 Show that cube of any positive integer is of the form $4m$, $4m + 1$ or $4m + 3$, for some integer m.
- Q.6 Find out the largest number which divides 245 and 1037, having remainder 5 in each case?
- Q.7 Three pieces of timber 42m, 49m and 63m long have to be divided into planks of the same length. What will be the greatest possible length of each plank. How many planks are formed?
- Q.8 Find the HCF of the following by Euclid Division lemma.
(a) 129, 545 (b) 504 and 735 (c) 252 and 594

Chapter 2 Polynomials

- Q.1 Divide $30x^4 + 11x^3 - 82x^2 - 12x - 48$ by $(3x^2 + 2x - 4)$ and verify the result by division algorithm.
- Q.2 Given that $\sqrt{2}$ is a zero of the cubic polynomial $6x^3 + \sqrt{2}x^2 - 10x - 4\sqrt{2}$, find its other two zeroes.
- Q.3 Find the polynomial, sum of whose roots is $\sqrt{2}$ and product is $1/3$.
- Q.4 If $(x+a)$ is a factor of $2x^2 + 2ax + 5x + 10$, Find the value of a.
- Q.5 Compare the following Quadratic Polynomials with form $ax^2 + bx + c$ and find the value of a, b and c. Also factorize the following and find their zeroes. Verify the relationship between zeroes and coefficients.
(a) $5x^2 - 4 - 8x$ (b) $x^2 + 3x - 10$ (c) $x^2 - 2x - 8$
- Q.6 If -2 is a zero of the polynomial $3x^2 + 4x + 2k$, Find the value of k.
- Q.7 Obtain all zeroes of the polynomial $2x^4 - 11x^3 + 7x^2 + 13x - 7$, it being given that the two of its zeroes are $3 + \sqrt{2}$ and $3 - \sqrt{2}$.
- Q.8 Find all zeroes of $x^4 + 4x^3 - 2x^2 - 20x - 15$, if two of its zeroes are $\sqrt{5}$ and $-\sqrt{5}$.

Chapter 14 Statistics

- Q.1 The following table gives the literacy rate (in percentage) of some cities. If the mean literacy rate is 69.43. Find out value of f to nearest integer.
- | | | | | | |
|----------------------|---------|---------|---------|---------|---------|
| Literacy rate (in %) | 45 - 55 | 55 - 65 | 65 - 75 | 75 - 85 | 85 - 95 |
| Number of cities | 3 | 10 | f | 8 | 3 |
- Q.2 A student noted the number of cars passing through a spot on a road for some periods, each of 3 minutes and summarized it in the table given below. Find the value of f, if mode of the data is 44.7. Given that highest frequency of the data is f.
- | | | | | | | | | |
|----------------|--------|---------|---------|---------|---------|---------|---------|---------|
| Number of cars | 0 - 10 | 10 - 20 | 20 - 30 | 30 - 40 | 40 - 50 | 50 - 60 | 60 - 70 | 70 - 80 |
| Frequency | 7 | 14 | 13 | 12 | f | 11 | 15 | 8 |
- Q.3 The following table shows the ages of the patients admitted in a hospital during a year:
- | | | | | | | |
|--------------------|--------|---------|---------|---------|---------|---------|
| Age (in years) | 5 - 15 | 15 - 25 | 25 - 35 | 35 - 45 | 45 - 55 | 55 - 65 |
| Number of patients | 6 | 11 | 21 | 23 | 14 | 5 |
- Draw the less than ogive curve. Find the median of the data and compare it with the point drawn on the less than ogive curve for median of the data.

Chapter 15 Probability

- Q.1 Explain the following events with the help of a practical examples. (take the experiment of throwing a dice)
(a) Equally likely events (b) Sure Event (c) Impossible Event (d) Complementary Event
- Q.2 Three fair coins are tossed simultaneously. Write down the sample space of the experiment. Also find out the probability of the following:
(a) Getting exactly two Heads (b) Getting atleast two heads (c) Getting atleast two heads
(d) No heads at all (e) getting one tail (f) getting exactly 1 tail and 2 heads

- Q.3 Two fair dice are thrown simultaneously, Write down the sample space of the experiment. Find the probability of the following events:
(a) Getting a sum of more than 10 (b) Getting a doublet (c) Getting a sum equal to a prime number
(d) Getting a multiple of 3 on either die (e) Getting a sum of 10
- Q.4 A card is chosen from a well shuffled deck of cards randomly. Find out the probability of the following events :
(a) Getting an ace (b) Getting a black face card (c) Getting a number less than 2 of spade or diamond
(d) Getting a Red card (e) Getting a jack of heart diamond or club (f) getting any of card of any suit
- Q.5 A jar contains 24 marbles, some are green and others are blue. If a marble is drawn at random from the jar, the probability that it is green is $\frac{2}{3}$. Find the number of blue marbles in the jar. Also Find out the probability of getting blue marble from the jar.
- Q.6 An integer is chosen at random from the first two hundreds digit. What is the probability that the integer chosen is divisible by 6 or 8

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SOCIAL SCIENCE:

Make a project on the following topic : Money and credit

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Mrs. Anu Bhatia
Principal

Mrs. Meena Singh
Director Academics