

SANT NIRANKARI PUBLIC SCHOOL
H.H.W (2018-19)
CLASS X

Dear Children

Summer vacation is round the corner. It is the time when you can be more candid and creative. It is the time when skills, other than intellectual can be nurtured and developed in your soft and evolving brains. Holiday assignments are focused to let the creative and latent talents, skills and desires of the children come to the surface so that they may be identified and satisfied.

So, dear children, GET... SET... GO...Enjoy doing the activities and ensure timely completion of the given assignments. Remember a well presented Holiday Homework fetches a commendable remark!!!!!!

ENGLISH

A. ANSWER THE FOLLOWING QUESTIONS IN NOT MORE THAN 150 WORDS:-

1. "They had always known a comfortable and cultured life." "If one has got family values one can surmount all the hurdles and emerge as a winner." On the basis of the story "Two Gentlemen of Verona" explain the above statements.
2. "Mrs. Packletide indulges in no more big – game shooting. The incidental expenses are so heavy". LoonaBimberton and Mrs. Packletide are the perfect examples of human folly and greed. One's greed can lead to one's doom and vanity can destroy a person's joy of life. Explain with reference to the lesson " Mrs. Packletide's Tiger."
3. "But he is a bit touched, sir. In the old days he committed many sins and maybe he shed some blood within sacred precincts and is paying for it now." Elaborate the statement with reference to the lesson " The Letter."
4. The poem "The Frog and the Nightingale" is a satire on the growing competition and on the desire of every person to achieve his goal by hook or crook. Give your views about the statement.
5. Family relationships should be firmly grounded on the basis of love,commitment and faith. Falsehood, hypocrisy and greed shatter our sweetest relationships. Elaborate with reference to the lesson "Dear Departed."
6. The proud Ozymandias lies forgotten in the desert. Elucidate.
7. Comment on the immortality of poetry to withstand the forces of decay over time with reference to "Not Marble Nor the Guilded Monuments."

B. WRITING SKILLS

1. Though there is a movement like "SarvshikshaAbhiyan" and enrolling the under privileged children in schools, still there are many children who do not go to school. Write a letter to the Editor of a local newspaper expressing your views and the steps that need to be taken . You are Avyan/ Amita (120-150 words)

SCIENCE (CLASS X)

ASSIGNMENT

CHEMISTRY

- What do you mean by precipitation reaction?
- Oil and fat containing food items are flushed with nitrogen, why?
- Explain in terms of gain or loss of oxygen with example?
- What is meant by balanced chemical equation?
- What is double displacement reaction?
- Identify the reaction Al reacts with iron Oxide to form aluminum oxide and iron?
- Write a balanced chemical equation with state symbols for the following reaction: Solutions of barium chloride and sodium sulphate in water react to give insoluble barium sulphate and solution sodium chloride. .
- What happens when Magnesium metal added to copper sulphate solution? Write balanced reaction.
- Explain following observation and write reasons
 - a) Silver metal do not show any change.
 - b) Some bubbles of the gas are seen when lead is reacted with the acid.
 - C) Grapes hanging on the plants do not ferment but after being plucked from the plant can be fermented under what conditions do these grapes fermented? Is it a chemical or physical change?
- Translate the following statement into the following statement into the following equation and balance also a) Hydrogen gas combines with nitrogen to form ammonia b) Hydrogen sulphide gas burns in air to give water and sulphur di oxide.
- Write the types of decomposition reactions?
- Translate the following statement into the following statement into the following equation and balance also a) Hydrogen gas combines with nitrogen to form ammonia b) Hydrogen sulphide gas burns in air to give water and sulphur di oxide)Lead Nitrate heated strongly.
- What happens when copper powder becomes black when air is passed over it?
- What happens when quicklime added in water?
- A yellow salt on heating decompose to give brown fumes and yellow residue is left behind name and write reaction?
- Rohan had a silver coin which turned black, he kept the coin in a bowl with aluminum foil then he filled the bowl with water and boiled it . After sometimes he found the coin has becomes new .its blackness disappeared? How did it happen?
- Why does tooth decay start when the pH of the mouth is lower than 5.5.
- What effect does the concentration of H⁺ ions have on the acidic medium?
- Why should curd and sour substances not to be kept in brass and copper vessels?
- What is chlor alkali process?
- Do all the basic solutions also contain H⁺ ions?
- Which is the real bleaching agent present in bleaching powder?
- A white chemical compound becomes hard on mixing proper quantity of water it is used for making statues also?
- Which chemical is present in the guard tube to obtain dry HCl gas?
- Which acid is produced in our stomach? What happens when it is in excess?
- What happens when Zinc metal come in contact of HCl?
- What happens when nitric acid pour on eggshell?
- Why acetic acid is considered as weak acid?
- How can you check the PH of the soil?
- Why some farmers advised to use the lime in their field?
- Name the acid present in the sting of bee, lemon juice, and apple
- Give examples of basic and acidic salts?

- How acidic medium in mouth can be prevented?
- A baker forget to add a substance while baking cake his cake is not so spongy which chemical he forgot?
- Which sodium compound used in softening of hard water?
- Write the chemical name and formula of bleaching powder?
- How can you differentiate in weak and strong acid?
- Given liquid is acid or base how can you confirm?
- Write reaction of zinc with sodium hydroxide?
- What happens to the PH of the Acid If water added to it?
- What are mineral acids?
- What is litmus solution? How they are obtained?
- Write an example of each acidic and basic salt?
- Write a short note on chlor alkali process?
- A student prepared solutions of acid and base in two separate beakers she forgot to label the solution and litmus paper is not available in the laboratory how will she distinguish both the liquids?
- How do metal carbonate and metal hydrogen carbonate react with acid?
- How would you distinguish between baking powder and washing soda?
- Under what condition a farmer treat his soil with quick lime?
- Which one is stronger acid PH=5, or PH=2.
- A metal compound A react with dilute hydrochloric acid to produce effervescence the gas evolved extinguish the burning candle write the balanced chemical reaction?

BIOLOGY **LIFE PROCESS**

- What is meant by life process?
- What is assimilation?
- Define peristalsis?
- Why basic medium required in small intestine?
- What is the role of villi in small and large intestine?
- What is the role of valves in heart?
- What is meant by double circulation of blood?
- What is role of amylase, pepsin, and trypsin?
- Write the steps involved in photosynthesis?
- Write the difference in artery and vein?
- What is lymph write its role?
- What is transpiration? Why it is necessary evil?
- Which tissue is associated with translocation in plants? Explain?
- How can you proof that carbon di oxide for photosynthesis?
- What is meant by blood pressure? How it is measured?
- What is artificial kidney? Explain its working?
- Explain the working of heart with figure?
- Write the functional unit of brain?
- Draw and explain the parts of neuron.
- Write the functions of cerebrum and medulla.
- What is role of hormone write any three plant hormone?
- What are endocrine glands? Write the role of different glands?
- Write the role of following glands pancreas, thyroid, testis and adrenaline.
- Draw and explain human brain?
- How coordination of different system necessary for proper function?
- What are movements associated with plants explain?

PHYSICS
ELECTRICITY

- Define current, circuit, resistance, resistivity
- Explain ohms law.
- Write the formula if three the resistors in series.
- Write the relation between resistance and area and length?
- Write an activity to prove that current produced is different in different substance.
- Calculate the current produced in circuit if 5400C charge flowing for 6 second.
- How much potential difference developed if 60J work done by 20C charge?
- If two resistors of 4 ohm and 2 ohm connected in series with a battery of 12 volt find the total resistance and current.
- Draw graph verifying ohms law
- What is meant by specific resistivity? Write its relation with R and L and A.
- Calculate current if five resistors of 4 ohms connected in parallel with 12 volt battery

Please do all the Practicals in the lab file as instructed in the class.

SOCIAL SCIENCE (2018 – 2019)

Name: _____ Subject: **Social Science**

Date: ____/____/____

Class: **X**

HOLIDAY HOME WORK

Session (2018 – 2019)

Dear Students,

This summer holiday homework is based on the topic of Natural Disaster which is very much a part of your social sciences curriculum.

Disaster management can be defined as the organization and management of resources and responsibilities for dealing with all humanitarian aspects of emergencies, in particular preparedness, response and recovery in order to lessen the impact of disasters.

India has been traditionally vulnerable to natural disasters on account of its unique geo-climatic conditions. Floods, droughts, cyclones, earthquakes and landslides have been recurrent phenomena. Over the past decade between 1990-2000, an average of about 4344 people lost their lives and about 30 million people were affected by disasters every year. The loss in terms of private, community and public assets has been astronomical.

Significance of doing a project on disaster management in social sciences

As students of social sciences and as conscious citizens, doing a project on disaster management is going to give you a first-hand experience and opportunity to get yourself familiarise not only with the meaning, factors, etc. of disasters but also to learn the essentials of

disaster preparedness and ways to collect relevant information pertaining to disasters and its effective dissemination.

Guidelines to complete your project report

Topic for the project report: Project Report on Disaster management (Survival skills)

Task I: Survival skills

A description about the survival skills required during any natural disasters / calamities.

Methods and techniques of survival skill

The project needs to be done individually in a creative and neat manner.

The project report should be of 15-20 A-4 size sheets filed together and spiraled neatly.

You can cover / design the cover page as per your liking.

The Project needs to be handwritten. For diagrams/ graphs, use fine tip pencil for neatness.

Stick pictures and articles neatly wherever appropriate giving them a fine outline.

The project should be presented in the following format:

Cover page

Acknowledgement

Index

Introduction (A brief synopsis of your entire project report)

Objective

Survival skills (Methods and Techniques)

Pocket guide as a ready reckoner for first aid information

Analysis of your learning from the task

Conclusion (A summary of your project report)

Bibliography (This should include clear mention of websites / URLs visited, newspaper and magazines referred, articles, information from any government department or other experts)

Task II: Prepare a pocket guide on First Aid for your school. Your pocket guide should contain the following:

Aid needed to be given for fractures, poisoning, cuts and burns, heat and cold wave and other threats that are prevalent in your area. Content shared in the pocket guide should be supported with adequate pictures so as to give a clear and elaborate understanding about the topic.

Role of govt./non govt. functionaries

Awareness on Disaster Management

The pocket guide should be such that it can be used as a ready reckoner for any First Aid related information.

3. Revise the lessons which are already done in the class

4. Read newspaper daily to update and enhance your knowledge

Assignment (2018-19) SOCIAL SCIENCE

Ch. - Sectors of the Indian Economy

Q1} Distinguish between:-

A} Disguised and Seasonal Unemployment

B} Public and Private Sector.

Q2} Why is tertiary sector becoming more important than other sectors in India/ give reasons.

Q3} what are the objectives of NREGA 2005?

CH- Development

Q1] what is BMI?

Q2} Define sustainable development.

Q3} Distinguish between Developed and Developing Countries?

Q4} "The Earth has enough resources to meet of people not the greed." Explain.

Ch-Federalism

Q1} How is federalism practiced in India?

Q2} Describe the language policy of India?

Q3} Explain the difference between Municipal Corporation and Municipalities?

Ch-Power-Sharing

Q1} Give reasons for why power sharing is desirable?

Q2} Give a brief assessment of the diverse population of Sri Lanka?

Q3} What are the different forms of power sharing in modern democracies? Give example of each.

Ch-Water Resource

Q1} What is the need of rainwater harvesting?

Q2} Why did Jawaharlal Nehru proclaim the dams as the "Temples of modern India"?

Q3} What can be the effects of over-population and excessive use of water resources?

Ch- Resource and Development

Q1} Describe the reasons for land degradation in India?

Q2} What are the three stages of resource planning? Describe it.

Q3} Distinguish between Bangar and Khadar soil?

Q4} Distinguish between renewable resources and non-renewable resources?

Ch- Nationalism in India

The civil Disobedience Movement was different from the Non-Cooperation Movement."

Support the statement with examples.

How did the salt satyagraha become an effective tool of resistance against British Colonialism in India during 1930? Explain.

What do you know about the peasant movement in Awadh?

Why did Mahatma Gandhi decide to call off the Civil Disobedience Movement? Explain.

Briefly explain the incident of the Jallianwala Bagh massacre and its effects on Punjab.

Ch-The Nationalist Movement in Indo China

What did French do to create a modern Vietnam?

Who was Ho Chi Minh? What was his contribution to Vietnam?

"during French colonial rule schools in indo-china became important place for political and cultural battles." Justify the statement.

"U.S entry into the war in Vietnam marked a new phase that proved costly to Vietnamese as well as to the Americans." Analyze the statement.

"women were represented as warriors as well as workers in Vietnam in the 1960s." Analyze the statement with examples.

INFORMATION TECHNOLOGY-CLASS X

1. Create an article on "CLEAN INDIA GREEN INDIA" in MS Word, header should contain relevant picture and title of the article. Insert your name, class in footer.
2. Explain the usage of Internet services in real life.
3. List any 3 ISP available in your city and collect information like connectivity type, speed and charges, compare them and tell which is the best ISP and why?
4. Design a Menu card for a Restaurant using shapes /clipart/picture and any other formatting option from available in MS Word.
5. Create a Presentation(10-12 slides)on any two topics:

- Global warming
- Women empowerment
- Social Networking

Use following features:

1. Transition effects for slides
2. Animation effects for text and objects
3. Use tables and format them with different table styles
4. Use charts to represent data in graphical form

VIVA OF 10 MARKS FROM HHW

Drawing Class X (2018-19)

1. On A3 size Ivory sheet make a poster on any Social issue.
2. Make a craft item and submit it for an Art Exhibition.

CLASS-X MATHEMATICS

WORKSHEET 1(CH-1)

1. The decimal expansion of $\frac{6}{1250}$ will terminate after how many places of decimal ?
2. What are the possible values of remainder r, when a positive integer is divided by 3?
3. The product of two consecutive positive integers is divided by 2. Is this statement true or false? Give reasons.
4. Can two numbers have 18 as their HCF and 380 as their LCM ? Give reasons.
5. Without actually performing long division , find if $\frac{980}{10500}$ will have terminating or non terminating (repeating) decimal expansion. Give reason for your answer.
6. A rational number in its decimal expansion is 327.7081. What can you say about the prime factors of q, when number is expressed in the form of p/q ? Give reasons.
7. If HCF of a and b is 12 and the product of these numbers is 1800. Then what is LCM of these numbers ?
8. Explain why $3 \times 5 \times 7 + 5$ is a composite number ?
9. What is the least number that is divisible by all the numbers from 1 to 10 ?
10. Find the sum of $0.\overline{23} + 0.\overline{68}$
11. Show that 12^n can not end with digit '0' for any natural number n.
12. Prove that (i) $\sqrt{2}$ (ii) $\sqrt{3}$ (iii) $\sqrt{5}$ are irrational numbers.
13. Show that $5 - \sqrt{3}$ is an irrational number.
14. Prove that $\sqrt{p} + \sqrt{q}$ is irrational, where p and q are primes.
15. Use prime factorisation method, find the LCM and HCF OF 30, 72, 432
16. Use Euclid division algorithm to find the HCF of : (i) 960 & 432 (ii) 847 & 2160 (iii) 441, 567 and 693.
17. Show that the square of any positive integer cannot be of the form $5q + 2$ or $5q + 3$ for any integer q.

18. Prove that $\sqrt{2} + 3$ is irrational.
19. On a morning walk, three persons step off together and their steps measure 40cm, 42cm and 45cm. What is the minimum distance each should walk, so that each should cover the same distance in complete steps.
20. Using Euclid division algorithm, find the largest number that divides 1251, 9377 and 15628.

WORKSHEET 2(CH-2)

CLASS-X

MATHEMATICS

1. Find a quadratic polynomial whose zeroes are -3 and 4.
2. Find the zeroes of quadratic polynomial $4x^2 - 12x + 9$.
3. If 1 is a zero of polynomial $p(x) = ax^2 - 3(a-1)x - 1$, then find the value of a.
4. If one of the zero of quadratic polynomial $(k-1)x^2 + kx + 1$ is -3 then find the value of k.
5. If one root of the polynomial $p(x) = 5x^2 + 13x + m$ is reciprocal of the other then find the value of m.
6. If α and β are the zeros of $p(x) = x^2 + x - 1$, then find the value of $\frac{1}{\alpha} + \frac{1}{\beta}$.
7. If one of the zeros of the quadratic polynomial $p(x) = 4x^2 - 8kx - 9$ is equal to its magnitude but opposite in sign of the other, find the value of k.
8. If α and β are the zeroes of quadratic polynomial $f(x) = 2x^2 - 5x + 7$, find the polynomial whose zeroes are 2α and 3β and 3α and 2β .
9. What must be subtracted from $p(x) = 8x^4 + 14x^3 - 2x^2 + 7x - 8$ so that the resulting polynomial is exactly divisible by $g(x) = 4x^2 + 3x - 2$?
10. What must be added to $p(x) = 4x^4 + 2x^3 - 2x^2 + x - 1$ so that the resulting polynomial is divisible by $g(x) = x^2 + 2x - 3$?
11. Obtain the zeroes of the following polynomial and verify the relation between its zeroes and coefficients.
 - (i) $4x^2 + 5\sqrt{2}x - 3$
 - (ii) $5t^2 + 12t + 7$
 - (iii) $2x^2 + \frac{7}{2}x + \frac{3}{4}$
 - (iv) $2x^2 - (1 + 2\sqrt{2})x + \sqrt{2}$
 - (v) $Y^2 + \frac{3}{2}\sqrt{5}y - 5$
 - (vi) $7y^2 - \frac{11}{3} - \frac{2}{3}$
 - (vii) $X^2 + 4\sqrt{3}x - 15$
 - (viii) $Y^3 - 2y^2 - 15y$
12. For each of the following, find a quadratic polynomial whose sum and product of the zeroes are given. Also find the zeroes of these polynomial by factorisation.
 - (i) $\frac{-8}{3}, \frac{4}{3}$
 - (ii) $\frac{21}{8}, \frac{5}{16}$
 - (iii) $\frac{-3}{2\sqrt{5}}, \frac{-1}{2}$
 - (iv) $-2\sqrt{3}, -9$
13. If $\sqrt{2}$ is a zero of polynomial $6x^3 + \sqrt{2}x^2 - 10x - 4\sqrt{2}$, find the other zeroes.
14. If $x - \sqrt{5}$ is a factor of the cubic polynomial $x^3 - 3\sqrt{5}x^2 + 13x - 3\sqrt{5}$, find the other two zeroes of the polynomial.
15. Obtain all other zeroes of $3x^4 + 6x^3 - 2x^2 - 10x - 5$, if two of its zeroes are $\sqrt{\frac{5}{3}}$ and $-\sqrt{\frac{5}{3}}$.

- If the lines given by $3x + 2ky = 2$ and $2x + 5y + 1 = 0$ are parallel, then find the value of k .
- Find the value of c for which the pair of equations $ax - y = 2$ and $6x - 2y = 3$ are parallel, then find the value of k .
- Find the co-ordinates where the line $x - y = 8$ will intersect y -axis.
- Write the number of solutions of the following pair of linear equation: $x + 2y - 8 = 0$, $2x + 4y = 16$
- Is the following pair of linear equations are consistent? Justify your answer.
 - $2ax + by = a$; $4ax + 2by - 2a = 0$
 - $\frac{3}{2}x + \frac{5}{3}y = 7$; $9x - 10y = 14$
 - $\frac{4}{3}x + 2y = 8$; $2x + 3y = 12$
- Solve the following pair of linear equation :
 - $\frac{x}{3} + \frac{y}{4} = 4$
 $\frac{5x}{6} - \frac{y}{8} = 4$
 - $\frac{x}{a} + \frac{y}{b} = a + b$
 $\frac{x}{a^2} + \frac{y}{b^2} = 2, a, b \neq 0$
 - $\frac{2}{\sqrt{x}} + \frac{3}{\sqrt{y}} = 2$
 $\frac{4}{\sqrt{x}} - \frac{9}{\sqrt{y}} = -1$
 - $\frac{2xy}{x+y} = \frac{3}{2}$
 $\frac{xy}{2x-y} = \frac{-3}{10}, x+y \neq 0, 2x-y \neq 0$
 - $7(y+3) - 2(x+2) = 14$
 $4(y-2) + 3(x-3) = 2$
 - $\frac{x+y}{xy} = 2$
 $\frac{x-y}{xy} = 6, x \neq 0, y \neq 0$
 - $3x - \frac{y+7}{11} - 8 = 0$
 $2y + \frac{x+11}{7} = 10$
 - $\frac{2}{x} + \frac{3}{y} = \frac{9}{xy}$
 $\frac{4}{x} + \frac{9}{y} = \frac{21}{xy}, x \neq 0, y \neq 0$
 - (IX)
- Solve graphically each of the following systems of linear equation. Also, find the coordinates of the points where the lines meet the axis of y .
 - $X + 2y - 7 = 0$; $2x - y - 4 = 0$
 - $3x + 2y = 12$; $5x - 2y = 4$
- Solve graphically each of the following systems of linear equation. Also, find the coordinates of the points where the lines meet the axis of x .

- (i) $X + 2y = 5$; $2x - 3y = -4$
- (ii) $2x + 3y = 8$; $x - 2y = -3$
- (iii) $3x + 2y - 4 = 0$; $2x - 3y - 7 = 0$
- (iv) $3x - 2y - 11 = 0$; $2x - 3y + 10 = 0$

9. Determine graphically , the vertices of the triangle formed by the lines $y = x$; $3y = x$; $x + y = 8$

10. The cost of 4 pens and 4 pencil boxes is Rs.100. Three times the cost of a pen is Rs.15 more than the cost of a pencil. Form a pair of linear equations for the above situation. Find the cost of pen and pencil box.

11. Ankita travels 14 km o her home partly by rickshaw and partly by bus. She takes half an hour if sh travels 2km by rickshaw and and the remaining distance by bus. On the other hand, if she travels 4km by rickshaw and the remaining distance by bus, she takes 9 minute longer. Find the speed of the rickshaw and of the bus.

12. A two digit number is four times the sum of the digits and twice the product of the digits. Find the number.

13. Two years ago, a father was five times as old as his son. Two years later his age will be 8 more than three times the age of his son. Find the present ages of father and the son.

14. A person, rowing at the rate of 5 km/h in still water, takes thrice as much time in going 40km upstream as in going 40 km downstream. Find the speed of the stream.

15. The car hire charges in a city comprises of a fixed charge together with a charge for the distance covered. For a journey of 12 km, the charge paid is Rs. 89 and for a journey of 20km, the charge paid is Rs 145. What will a person have to pay for travelling a distance of 30 km?

WORKSHEET 4 (CH-4)

1. Is $x = -2$ a solution of the equation $x^2 - 2x + 8$.
2. Is $x = -4$ a solution of the equation $2x^2 + 5x - 12 = 0$
3. For what value of k are the roots of the following quadratic equation are real and equal:
 - (i) $3x^2 + 2kx + 27 = 0$
 - (ii) $Kx^2 + 4x + 1 = 0$
 - (iii) $(k - 12)x^2 + 2(k - 12)x + 12 = 0$
 - (iv) $(k + 1)x^2 - 2(k - 1)x + 1 = 0$
4. Write he nature of roots of quadratic equation : $4x^2 + 4\sqrt{3}x + 3 = 0$
5. Solve for x :
 - (i) $4\sqrt{3}x^2 + 5x - 2\sqrt{3} = 0$
 - (ii) $2x^2 + 7x + 5\sqrt{2} = 0$
 - (iii) $X^2 - (\sqrt{2} - 1)x + \sqrt{2} = 0$
 - (iv) $9x^2 - 6a^2x + (a^4 - b^4) = 0$
 - (v) $16x^2 - 8a^2x + (a^4 - b^4) = 0$
 - (vi) $36x^2 - 12ax + (a^2 - b^2) = 0$
 - (vii) $\frac{1}{a+b+x} = \frac{1}{a} + \frac{1}{b} + \frac{1}{x}$
 - (viii) $\frac{x-1}{x-2} + \frac{x-3}{x-4} = 3\frac{1}{3}$
 - (ix) $\frac{x+1}{x-1} - \frac{x-1}{x+1} = \frac{5}{6}$

- (x) $\left(\frac{x}{x+1}\right)^2 + 2\left(\frac{x}{x+1}\right) - 24 = 0$
- (xi) $9\sqrt{\frac{x}{x+4}} - 11 = -2\sqrt{\frac{x+4}{x}}, x \neq 0, -4$
- (xii) $\left(x^2 + \frac{1}{x^2}\right) + \left(x + \frac{1}{x}\right) - 4 = 0, x \neq 0$
- (xiii) $4\left(x - \frac{1}{x}\right)^2 - 2\left(x + \frac{1}{x}\right) - 4 = 0, x \neq 0$
- (xiv) $\sqrt{(3x^2 + x + 5)} = x - 3$
- (xv) $2x^{\frac{2}{3}} - x^{\frac{1}{3}} = 28$
- (xvi) $4^x - 3 \cdot 2^{x+3} + 128 = 0$
- (xvii) $5^{1+x} + 5^{1-x} = 26$
- (xviii) $9x^2 - 9(a+b)x + (2a^2 + 5ab + 2b^2)$
- (xix) $a(a^2+b^2)x^2 + b^2x - a = 0$
- (xx) $12abx^2 - (9a^2 - 8b^2)x - 6ab = 0$

6. A train covers a distance of 90 km at a uniform speed. Had the speed been 15 km per hour faster, it would have taken half an hour less for the same journey. Find the original speed of the train.
7. Two trains leave a railway station at the same time. The first train travels due west and the second train due north. The first train travels 35 km/h faster than the second train. If after two hours, they are 130 km apart, find the average speed of each train.
8. The speed of a boat in still water is 8 km/hr. It can go 15 km upstream and 22 km downstream in 5 hours. Find the speed of the stream.
9. A piece of cloth costs Rs.35. If the piece were 4m longer and each metre costs Rs. one less, the cost would remain unchanged. How long is the piece?
10. Two pipes running together can fill a cistern in four minutes. If one pipe takes 15 minutes more than the other to fill the cistern, find the time taken in which each pipe would fill the cistern.

WORKSHEET 6 (CH-15)

1. A die is thrown once. What is the probability of getting
- An even number
 - An odd number
 - A prime number
 - A composite number
 - A number less than 4
 - A number less than or equal to 5
 - A number greater than or equal to 3
 - A number seven
2. Cards are marked with numbers 13,14,15,.....,60 are placed in a box and mixed thoroughly. One card is drawn at random from the box. Find the probability that the number on the card drawn is
- Divisible by 5
 - An even number
 - A number which is a perfect square
 - A prime number
 - A number which is divisible by 2 or 3

- (vi) A number which is divisible by 2 and 3
 - (vii) A number which is not divisible by 10
3. One card is drawn from a well shuffled deck of 52 cards Find the probability of getting
- (i) A king of red colour
 - (ii) A face card
 - (iii) A queen
 - (iv) A red face card
 - (v) A spade
 - (vi) A jack of hearts
 - (vii) A queen of diamond
 - (viii) Spade or an ace
 - (ix) Neither king nor queen
 - (x) Red card
 - (xi) Not red card
 - (xii) A king or a jack
4. Two dice are thrown simultaneously, find the probability of getting :
- (i) 5 will not come up either side
 - (ii) 5 will come up at least once
 - (iii) Same number on both the dice.
 - (iv) Different numbers on both the dice.
 - (v) Doublet of a number
 - (vi) Sum is less than 5
 - (vii) Prime number comes on first.
 - (viii) Odd numbers on both the dice
 - (ix) Numbers having a sum less than or equal to 12
 - (x) Two coming on the first die and multiple of three on the other.
5. Two coins are tossed simultaneously. Find the probability of
- (i) Getting at least one head
 - (ii) One head
 - (iii) At most one head
 - (iv) At least one tail
 - (v) One tail
6. What is the probability that the leap year selected at random will contain 53 Sundays?
7. What is the probability that the year selected at random will contain 53 Sundays?
8. A bag contains 5 black, 7 red and 3 white balls. A ball is drawn at random from the bag, find the probability that the ball drawn is:
- (i) Red
 - (ii) either black or white
 - (iii) not black
9. Kajal and Priyanka are two friends. They were both born in 1991. What is the probability that they have
- (i) same birthdays?
 - (ii) Different birthdays?
10. A bag contains 24 marbles out of which x marbles are red.
- (i) If one marble is drawn at random from the bag, what is the probability that it is a black marble.
 - (ii) If 4 more black marbles are put in the bag, the probability of drawing a black marble will be $\frac{9}{8}$ times that of the probability of black marble coming in part (i). Find x .

WORKSHEET 6 (CH-8)

1. Find the maximum value of $\frac{1}{\sec\theta}$, $0^\circ \leq \theta \leq 90^\circ$
2. Evaluate $\cos 48^\circ \cos 42^\circ - \sin 48^\circ \sin 42^\circ$
3. In $\triangle ABC$ right angled at C , find the value of $\cos(A + B)$
4. Evaluate $:\frac{\sin 18^\circ}{\cos 72^\circ} + \frac{\tan 26^\circ}{\tan 64^\circ}$
5. If $\cos A = \frac{4}{5}$ then find the value of $\tan A$
6. If $\sin A = \frac{a}{b}$ then find the value of $\cos A$
7. If $A + B = 90^\circ$ and $\tan A = \frac{3}{4}$, what is $\cot B$?
8. If $\cos(A + B) = 0$, then evaluate $\sin(A - B)$
9. What is the value of $(\tan 1^\circ \tan 2^\circ \tan 3^\circ \dots \dots \dots \tan 89^\circ)$?
10. If $\cos 9A = \sin A$ and $9A < 90^\circ$, then what is the value of $\tan A$?
11. If $4\tan A = 3$, then evaluate $\left(\frac{4\sin\theta - \cos\theta}{4\sin\theta + \cos\theta}\right)$
12. If $\sin\theta - \cos\theta = 0$, then find the value of $\sin^4\theta + \cos^4\theta$.
13. Evaluate $\sin(45^\circ + \theta) - \cos(45^\circ - \theta)$
14. Prove that $\sqrt{(1 - \cos^2\theta)\sec^2\theta} = \tan\theta$
15. If $\cos A + \cos^2 A = 1$, then $\sin^2 A + \sin^4 A = 1$
16. $\frac{\cos A}{1 + \sin A} + \frac{1 + \sin A}{\cos A} = 2\sec A$
17. $\sqrt{\frac{\sec\theta - 1}{\sec\theta + 1}} + \sqrt{\frac{\sec\theta + 1}{\sec\theta - 1}} = 2\operatorname{cosec}\theta$
18. $\sqrt{\sec^2\theta + \operatorname{cosec}^2\theta} = \tan\theta + \cot\theta$
19. If $\operatorname{cosec}\theta + \cot\theta = p$, then prove that $\cos\theta = \frac{p^2 - 1}{p^2 + 1}$.
20. Prove that $\frac{1 + \sec\theta - \tan\theta}{1 + \sec\theta + \tan\theta} = \frac{1 - \sin\theta}{\cos\theta}$.

ग्रीष्मावकाश कार्य (2018-19)

विषय - हिंदी 'ब'

कक्षा - दसवीं

सामान्य निर्देश : संपूर्ण कार्य एक अलग रजिस्टर में सफाई से करना है।

(क) अपठित-बोध

पिछले पाँच वर्षों के बोर्ड परीक्षा के हिन्दी के प्रश्न-पत्र इंटरनेट के माध्यम से निकाल कर दिए गए 5 गद्यांश और 5 पद्यांश हल कीजिए।

(ख) व्यावहारिक व्याकरण

प्र.1. निम्नलिखित वाक्यों को निर्देशानुसार बदलिए:

- (क) उसने ईश्वर से कुछ माँगने की मुद्रा में अपने हाथ ऊपर उठाए। (मिश्र वाक्य में)
- (ख) गायें और बकरियाँ भी घास खा रही हैं। (संयुक्त वाक्य में)
- (ग) मैंने कल एक ऐसा बच्चा देखा जो बहुत स्वस्थ था। (सरल वाक्य में)
- (घ) बालिकाएँ नाच-गा रही हैं। (संयुक्त वाक्य में)
- (ङ) वे मेरे चाचा जी हैं और पलंग पर लेटे हैं। (मिश्र वाक्य में)
- (च) जब विद्यालय पहुँचा घंटे बज चुकी थी। (सरल वाक्य)
- (छ) किसान के बैल खूँटे से खुल गए और खेत में चरने लगे। (सरल वाक्य में)
- (ज) चोर दुकान का ताला तोड़कर भाग गया। (संयुक्त वाक्य में)
- (झ) मैंने एक कमजोर लड़की को बहुत से कपड़े धोते देखा। (मिश्र वाक्य में)
- (ञ) रात के दस बजे, मैंने पढ़ना बंद कर दिया। (मिश्र वाक्य में)
- (ट) सूर्य के छिपने पर अँधेरा छा गया। (संयुक्त वाक्य में)
- (ठ) अध्यापक अपने शिष्य को अच्छा बनाना चाहता है। (मिश्र वाक्य में)

प्र.2. प्रश्नों के उत्तर दीजिए-

- (क) पद किसे कहते हैं उदाहरण सहित स्पष्ट करो?
- (ख) शब्द एवं पद में अंतर बताइए?
- (ग) तत्सम और तद्भव शब्दों में अंतर बताइए?
- (घ) विकारी शब्द क्या है?

- प्र.3. निम्नलिखित मुहावरों के अर्थ लिखकर वाक्य बनाइए:
- | | |
|------------------|------------------------|
| (क) आँख का तारा | (झ) पानी-पानी होना |
| (ख) प्राण निकलना | (ञ) नौ नकद न तेरह उधार |
| (ग) खून जलाना | (ट) हिम्मत हारना |
| (घ) तूती बोलना | (ठ) काम तमाम करना |
| (ङ) तलवार खींचना | (ड) पापड़ बेलना |
| (च) खून खौलना | (ढ) तार-तार होना |
| (छ) आपा खोना | (ण) दबदबा होना |
| (ज) लाज रखना | |

- प्र.4. निम्नलिखित वाक्यों को शुद्ध करके पुनः लिखिए-
- (क) अपन को तुम्हारी बात अच्छी नहीं लगी।
(ख) क्या तुम्हें चारों वेदों का नाम ज्ञात है?
(ग) गुफा में महान अंधेरा है।
(घ) पंचों ने जो निर्णय लिया वह सभी को मान्य था।
(ङ) मेघ पानी बरसाते हैं।
(च) गुलाम अली गाने की कसरत करते हैं।
(छ) पिताजी ने पुस्तक पढ़ा।
(ज) बाढ़ द्वारा फसल तबाह कर दी।
(झ) कपड़े ये किसके हैं?
(ञ) सड़क में भारी भीड़ जमा है।
(ट) मेरे को मत रोको।
(ठ) वह रोज कार्यालय को जाता है।
(ड) उन्हें सब पता चल जाएगा।
(ढ) वनों का सुन्दर शोभा अवर्णनीय है।
(ण) फूलों का लाल गुच्छा ले आइए।

(ग) पाठ्यपुस्तक

(2) अंक वाले प्रश्न

- प्र.1 प्रश्नों के उत्तर पठित पाठों के आधार पर दीजिए:-
- (क) बड़े भाई साहब अंग्रेजी के बारे में क्या संदेश देते रहते थे?
(ख) लेखक ने बड़े भाई साहब के नरम व्यवहार का क्या फायदा उठाया?
(ग) अनुभव को महत्त्वपूर्ण सिद्ध करने के लिए बड़ा भाई कौन-कौन से उदाहरण देता है?

- (घ) बड़े भाई साहब अंग्रेजी के बारे में क्या नसीहत देते थे?
- (ङ) लेखक की खेल कूद के प्रति रुचि की तुलना किससे की गई है?
- (च) कलकत्तावासियों के लिए 26 जनवरी 1931 का दिन क्यों महत्वपूर्ण था?
- (छ) खुला चैलेंज देकर ऐसी सभा पहले कभी नहीं की गई थी। आशय स्पष्ट कीजिए।
- (ज) 26 जनवरी 1931 के दिन को अमर बनाने के लिए क्या-क्या तैयारियाँ की गईं?
- (झ) धर्मतल्ले के मोड़ पर आकर जुलूस क्यों टूट गया?
- (ञ) सुभाष बाबू के जुलूस में स्त्री समाज की क्या भूमिका थी?
- (ट) पुलिस कमिश्नर के नोटिस और कौंसिल के नोटिस में क्या अंतर था?
- (ठ) निकोबार के लोग तताँरा को क्यों पसंद करते थे?
- (ड) वामीरो ने तताँरा को बेरूखी से क्या जवाब दिया?
- (ढ) तताँरा की तलवार के बारे में लोगों का क्या मत था?
- (ण) क्रोध में तताँरा ने क्या किया?

(5) अंक वाले प्रश्न

- (क) वामीरो की प्रतीक्षा में बैठे तताँरा की प्रेम व्याकुलता स्पष्ट करें।
- (ख) दोनों को देखकर वामीरो की माँ तथा गाँव वालों ने क्या किया? इसका तताँरा पर क्या प्रभाव पड़ा?
- (ग) 'डायरी' का एक पन्ना पाठ का संदेश क्या है?
- (घ) 'बड़े भाई साहब' पाठ में लेखक ने समूची शिक्षा के किन तौर-तरीकों पर व्यंग्य किया है? क्या आप उनके विचार से सहमत हैं?
- (ङ) 'बड़े भाई साहब' पाठ के आधार पर बड़े भाई साहब के चरित्र की कोई पाँच विशेषताएँ बताइए?

पठित कविताओं के आधार पर उत्तर दीजिए (2 अंक वाले प्रश्न)

- (क) दीपक दिखाई देने पर अँधियारा कैसे मिट जाता है? साखी के संदर्भ में स्पष्ट कीजिए?
- (ख) मीठी वाणी बोलने से औरों को सुख और अपने मन को शीतलता कैसे प्राप्त होगी?
- (ग) अपने स्वभाव को निर्मल रखने के लिए कबीर ने उपाय सुझाया है?
- (घ) मीरा की प्रमुख रचनाओं के विषय में आप क्या जानते हैं?
- (ङ) 'मीरा के काव्य का मूल स्वर प्रेम है'। कैसे?

(5 अंक वाले प्रश्न)

- (क) मीरा की भक्ति पर टिप्पणी करें।
- (ख) मीराबाई श्याम की चाकरी क्यों करता है और इसके पीछे मीरा का कौन-सा मनोभाव प्रकट हुआ है?
- (ग) कबीर की सखियों से हमें क्या शिक्षा मिलती है?
- (घ) कबीर की भाषा-शैली पर टिप्पणी कीजिए?
- हरिहर काका पाठ के आधार पर उत्तर दीजिए**
- (क) 'हरिहर काका' कहानी का उद्देश्य स्पष्ट कीजिए?
- (ख) 'हरिहर काका' कहानी से यह स्पष्ट होता है कि सहृदयता, सद्भावना और भाई-चारा जैसे मूल्य वर्तमान समाज से लगभग समाप्त हो गए हैं, आप इनकी पुनर्स्थापना के लिए क्या करना चाहेंगे?
- (ग) आप के पड़ोस में अगर किसी के साथ काका जैसा व्यवहार हो तो आप क्या करेंगे?
- (घ) संयुक्त परिवार में सुखपूर्वक रहने के लिए आप किन-किन मूल्यों को आवश्यक मानते हैं और क्यों?
- (ङ) हरिहर काका पाठ में किन सामाजिक बुराइयों को बताया गया है विस्तार से बताइए।

(घ) लेखन

- प्र.1. कोई 5 औपचारिक पत्र लिखिए। (पिछले 5 वर्षों के प्रश्न पत्रों से)
- प्र.2. किन्हीं 5 विषयों पर आकर्षक विज्ञापन तैयार कीजिए। (पिछले 5 वर्षों के प्रश्न पत्रों से)
- प्र.3. निम्नलिखित विषयों पर संक्षिप्त अनुच्छेद लिखिए।
भारत का विकास, राष्ट्रीय एकता और अखंडता, परिश्रम का महत्त्व, दहेज प्रथा एक अभिशाप, मोबाइल फोनों का बढ़ता चलन, आतंकवाद
- प्र.4. निम्नलिखित संवादों को संक्षेप में लिजिए।
1. इंटरनेट की उपयोगिता और दुरुपयोग पर।
 2. फिल्म देखकर लौटे दो मित्रों के बीच
 3. महंगाई की बढ़ती समस्या पर दो महिलाओं के बीच।