

**KENDRIYA VIDYALAYA NABARANGPUR**  
**HOLIDAY HOMEWORK (SUMMER VACATION-2023-24)**  
**CLASS IX**

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**Subject: English**

**1. DESCRIPTIVE PARAGRAPH**

- i)** You recently visited the Children's Park, a favourite place for all children, in your city. Write a description of the park in 100-150 words.
- ii)** One of your friends, Raman, is very gentle and polite to you. You regard him as your best friend. Describe him in 100-150 words.

**2. STORY WRITING**

Write a short story with the help of the cues given below. Give a suitable title to the story.

- I) You encountered two strange people. They were different from normal human beings but they were quite interesting and exciting. As Amit/Manisha, using your ideas, write a story in about 150-200 words narrating your experience with them.**

## Subject: Hindi

1. कबीरकीसाखियों को पढ़कर अपनी भाषा में भावार्थ लिखिए ।
2. हिंदीसाहित्यजगतकेउपन्याससम्राट मुंशी प्रेमचंद की प्रमुख रचनाओं ( गोदान, कर्मभूमि, पूस की रात... आदि) को पढ़िए तथा उनकी रचनाओं की क्या विशेषताएं हैं, संक्षेप में लिखिए ।
3. सोशल मीडिया पर निबंध लिखिए ।
4. बोर्ड की परीक्षा की तैयारी आप किस तरह से कर रहे हैं इसके बारे में अपने मित्र को पत्र लिखिए ।
5. मन में सकारात्मक भावनाओं को जागृत रखने के लिए विभिन्न श्रोतों से प्रतिदिन प्रेरणात्मक उद्धरणों को अपनी डायरी में लिखिए ।
6. मनोरंजन तथा शिक्षा हेतु निम्नलिखित कुछ फिल्मों को अपने अवकाश के समय में देखिए । इन फिल्मों से हमें क्या सबक मिलते हैं याद रखिए ।
  - मेरीकॉम
  - ऑलइजवेल
  - भागमिल्खाभाग
  - ब्लैक

## Subject: Sanskrit

१. स्वरसन्धिः- दीर्घ, घगणु, यणसन्धितः पञ्च-पञ्च (5-5) उदाहरणानिलिखत।
२. अकारान्तः पलिंुलिङ्गे (बालकवत) शब्दत्रयस्य (3) रूपाणिलिखत।
३. क्त्वाप्रत्ययप्रयजुयदश (10) उदाहरणानिलिखत।
४. पत्रलेखनद्वयं(2) लिखत।(स्वेच्छया)
५. भू, नीधातुपञ्चलकारेषु(5) रूपाणिलिखत।
६. पठितः प्रथमपाठस्य शब्दार्थाः अभ्यासश्च स्वकक्षापस्तुस्तिकायां लिखत।

## Subject: Maths

1. Find two rational numbers between 0.1 and 0.3
2. Express  $3\frac{1}{8}$  in the form of decimal.
3. Simplify :  $(4+\sqrt{3})(4-\sqrt{3})$
4. Rationalise the denominator of  $\frac{1}{\sqrt{3}-\sqrt{2}}$ .
5. Express  $0.\overline{245}$  as a fraction in the simplest form.
6. If  $x = (2+\sqrt{5})$ , find the value of  $x+1/x$
7. Simplify  $11.\overline{4565} \div 2.\overline{67}$
8. Find the value of x in  $\sqrt[3]{44x-7} - 5 = 0$
9. If  $x = (2+\sqrt{3})$ , find the value of  $x^2 + \frac{1}{x^2}$
10. What is the value of  $3\sqrt{3} + \sqrt{3}$ ?
11. Express 1.363636... in the form p/q, where p and q are integers and q  $\neq$  0.
12. Rationalize the denominator:
  - (a)  $2/\sqrt{3}-1$
  - (b)  $7/\sqrt{2}-\sqrt{5}$
13. If  $x + y = 12$  and  $xy = 32$ , Find the value of  $x^2 + y^2$ .
14. If  $3x + 2y = 12$  and  $xy = 6$ , find the value of  $9x^2 + 4y^2$ .
15. Write the following cubes in the expanded form:
  - (i)  $(3a + 4b)^3$
  - (ii)  $(5p - 3q)^3$
16. If  $x^2+1/x^2 = 27$  find the values of each of the following:
  - (i)  $x + \frac{1}{x}$
  - (ii)  $x - \frac{1}{x}$

17. If  $a + b + c = 15$  and  $a^2 + b^2 + c^2 = 83$ , find the value of  $a^3 + b^3 + c^3 - 3abc$ .

18. Factorize:

(i)  $6ab - b^2 + 12ac - 2bc$

(ii)  $9(2a - b)^2 - 4(2a - b) - 13$

19. If  $x^3 + ax^2 - bx + 10$  is divisible by  $x^2 - 3x + 2$ , find the values of  $a$  and  $b$ .

20. Using factor theorem, factorize each of the following polynomials:

(i)  $x^3 - 6x^2 + 3x + 10$

(ii)  $2y^3 - 5y^2 - 19y + 42$

21. Which one is not a polynomial

(a)  $4x^2 + 2x - 1$

(b)  $y + \frac{3}{y}$

(c)  $x^3 - 1$

(d)  $y^2 + 5y + 1$

22. The number of zeros of  $x^2 + 4x + 2$

(a) 1

(b) 2

(c) 3

(d) none of these

23. The value of  $k$ , if  $(x - 1)$  is a factor of  $4x^3 + 3x^2 - 4x + k$ , is

(a) 1

(b) 2

(c) -3

(d) 3

## CASE STUDY QUESTION :-

### CASE STUDY 1 :

A Mathematics teacher asks students to collect the marks of Mathematics in Half yearly exam. She instructed to all the students to prepare frequency distribution table using the data collected. Ram collected the following marks (out of 50) obtained in Mathematics by students of Class IX

21, 10, 30, 22, 33, 5, 37, 12, 25, 42, 15, 39, 26, 32, 18, 27, 28, 19, 29, 35, 31, 24, 36, 18, 20, 38, 22, 44, 16, 24, 10, 27, 39, 28, 49, 29, 32, 23, 31, 21, 34, 22, 23, 36, 24, 36, 33, 47, 48, 50, 39, 20, 7, 16, 36, 45, 47, 30, 22, 17. 21, 10, 30, 22, 33, 5, 37, 12, 25, 42, 15, 39, 26, 32, 18, 27, 28, 19, 29, 35, 31, 24, 36, 18, 20, 38, 22, 44, 16, 24, 10, 27, 39, 28, 49, 29, 32, 23, 31, 21, 34, 22, 23, 36, 24, 36, 33, 47, 48, 50, 39, 20, 7, 16, 36, 45, 47, 30, 22, 17

- (i) How many students scored more than 20 but less than 30?
- (ii) How many students scored less than 20 marks?
- (iii) How many students scored more than 60% marks?
- (iv) What is the class size of the classes?

### CASE STUDY 2:

Deepak bought 3 notebooks and 2 pens for Rs. 80. His friend Ram said that price of each notebook could be Rs. 25. Then three notebooks would cost Rs.75, the two pens would cost Rs.5 and each pen could be for Rs. 2.50. Another friend Ajay felt that Rs. 2.50 for one pen was too little. It should be at least Rs. 16. Then the price of each notebook would also be Rs.16, Lohith also bought the same types of notebooks and pens as Aditya. He paid 110 for 4 notebooks and 3 pens. Later, Deepak guess the cost of one pen is Rs. 10 and Lohith guess the cost of one notebook is Rs. 30.

- (i) Form the pair of linear equations in two variables from this situation by taking cost of one notebook as Rs.  $x$  and cost of one pen as Rs.  $y$ .

(a)  $3x + 2y = 80$  and  $4x + 3y = 110$  (b)  $2x + 3y = 80$  and  $3x + 4y = 110$  (c)  $x + y = 80$  and  $x + y = 110$  (d)  $3x + 2y = 110$  and  $4x + 3y = 80$

(ii) Which is the solution satisfying both the equations formed in (i)?

(a)  $x = 10, y = 20$  (b)  $x = 20, y = 10$  (c)  $x = 15, y = 15$  (d) none of these

(iii) Find the cost of one pen? (a) Rs. 20 (b) Rs. 10 (c) Rs. 5 (d) Rs. 15

(iv) Find the total cost if they will purchase the same type of 15 notebooks and 12 pens.

(a) Rs. 400 (b) Rs. 350 (c) Rs. 450 (d) Rs. 420

(v) Find whose estimation is correct in the given statement.

(a) Deepak (b) Lohith (c) Ram (d) Ajay

### **ART INTEGRATED PROJECT :**

ROLL NO 1-10 - TOPIC – TESSELLATION – MAKE DIFFERENT TYPES OF TESSELLATION

ROLL NO 11-20 - TOPIC – DRAW MANDALA ART

ROLL NO 21-30 - TOPIC – COMPARISON OF CLIMATE CONDITION OF SIKKIM & KERALA USING STATISTICAL METHOD

ROLL NO 31-40 TOPIC – GEOMETRY MAP (DESIGN A MAP USING LINES & ANGLES, TRIANGLES OF NABRARANGPUR TOWN )

ROLL NO 41-45 – SQUARE ROOT SPIRAL

**NOTE - (MAKES THE PROJECT & WRITE ALL THE DETAILS IN A4 SHEET PAPER )**

### **MISCELLANEOUS WORK –**

1. Write the table 15-25 & remember it .
2. Complete the home work from ncert books chapter – 1.
3. Utilise your time in innovative ideas & try to make a new project of maths related to our surroundings.

## Subject: Science

### I. EXTRA QUESTIONS

1. Complete the NCERT exemplar Questions of Matter in our surroundings, is matter around us pure ? (Only answers).
2. In text questions of Ch1 and Ch 2

### II. ASSERTION & REASONING

Directions : In each of the following questions, a statement of Assertion is given and a corresponding statement of Reason is given just below it. Of the statements, given below, mark the correct answer as:

**(a)** Both assertion and reason are true and reason is the correct explanation of assertion.

**(b)** Both assertion and reason are true but reason is not the correct explanation of assertion.

**(c)** Assertion is true but reason is false.

**(d)** Both Assertion and Reason are false.

*Q.1.* Assertion : A gas can easily be compressed by applying pressure.

Reason: Since the inter-particle spaces between gases are very large, they can decrease by applying pressure.

*Q.2.* Assertion : Gases exert pressure on the walls of the container.



Reason: The intermolecular force of attraction is very strong in gases.

Q.3. Assertion: It is easier to cook food at sea level as compared to higher altitudes.

Reason: The boiling point of water increases at high altitudes.

Q.4. Assertion : When a solid melts, its temperature remains the same.

Reason: The heat gets used up in changing the state by overcoming the forces of attraction between the particles.

Q.5. Assertion: Ice floats on water.

Reason: Liquids have lower density than solids.

Q.6. Assertion: The rate of evaporation increases with increase in temperature.

Reason: Increase in temperature decreases the kinetic energy of the particles.

Q.7. Assertion: There is a change in the temperature of the substance when there it undergoes a change in state through it is still being heated.

Reason: The heat supplied is either absorbed as a latent heat of fusion or a latent heat of vapourisation.

### III. Question Bank:

Prepare a question bank of 20 questions from CH1 and CH 2 and write the answers for same.

### IV. Chose any topic from the chapter Natural Resource and make a portfolio.

## **Subject:Social Science**

1. Complete all the assignment ie. Home work and class work.
2. Plant a sapling on World Environment Day (5th June) and keep the pictures.
3. Write an essay on 'Climate Change and It's Effect on Human Life
4. Write a summary of last municipal election of Nabarangpur and compare it with features of democratic election.
5. Prepare a project on 'Natural Disaster' by following the guidelines of CBSE. Prepare a questionnaire of the chapters that you have studied. Questions must be from all the chapters. Types of questions could be MCQ, VSA and SA

## **Subject:Art Education**

- 1) Draw any 3 figurative drawing of your choice in your drawing book.
  - For example:- Birds on tree, Animals at ground...etc.
- 2) Draw one (1) Village Scene in your drawing and make it colourful.
  
- 3) Draw (1) Cover Page for our school magazine.
  - Use separate paper sheet for the same.
  - It should be neat and clean.
  - It must be colourful.

## Subject: Computer

1. What is programming language? What are its types?
2. What is language translator? Explain its types?
3. Enquire about Python Programming language and write in details about it.
4. What is Algorithm and Flowchart?
  - Write an algorithm and draw the flow chart to find the area of Rectangle.
  - Write an algorithm and flowchart to find the area of Triangle.
  - Write an algorithm and flowchart to find the volume of cone
  - Write an algorithm and draw the flow chart to find the largest among three numbers.
5. What do you understand by Artificial Intelligence enquire about it in details and give some real life applications of AI in daily life.
6. What is a Chabot? In which area it is used? Give some example
7. What is Google Assistant, Siri, Alexa, Cortana ?
8. What are humanoid robots used for?

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**HOLIDAY HOMEWORK (SUMMER VACATION-2023-24)**  
**CLASS X**

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**Subject : Science**

**1. Exemplar Questions:**

Complete the NCERT exemplar Questions of chapter- Chemical equation and reaction and Life processes.

**2. Mind map:**

Prepare the mind map of

- a. Types of nutrition
- b. Types of equations.

**3. Assertion- Reason questions:**

Following questions consist of two statements – Assertion (A) and Reason (R). Answer these questions selecting the appropriate option given below:

- (a) Both A and R are true and R is the correct explanation of A.
- (b) Both A and R are true but R is not the correct explanation of A.
- (c) A is true but R is false.
- (d) A is false but R is true.

Q.1. Assertion (A) : Decomposition of vegetable matter into compost is an example of exothermic reactions.

Reason (R) : Exothermic reaction are those reactions in which heat is evolved.

Q.2. Assertion (A) : When HCl is added to zinc granules, a chemical reaction occurs.

Reason (R) : Evolution of a gas and change in colour indicate that the chemical reaction is taking place.

Q.3. Assertion (A) : Calcium carbonate when heated gives calcium oxide and water.

Reason (R) : On heating calcium carbonate, decomposition reaction takes place.

Q.4. Assertion (A) : Brown fumes are produced when lead nitrate is heated.

Reason (R) : Nitrogen dioxide gas is produced as a by product due to the decomposition of lead nitrate.

Q.5. Assertion (A) : White silver chloride turns grey in sunlight.

Reason (R) : Decomposition of silver chloride in presence of sunlight takes place to form silver metal and chlorine gas.

Q.6. Assertion (A): Pungent smelling gas is produced when sulphur burns in air.

Reason (R) : Sulphur trioxide is formed on reaction of sulphur with oxygen.

Q.7. Assertion (A) : In a reaction of copper with oxygen, copper serves as a reducing agent.

Reason (R) : The substance which gains oxygen in a chemical reaction acts as a reducing agent.

Q.8. Assertion (A) : In electrolysis of water, the volume of hydrogen liberated is twice the volume of oxygen formed.

Reason (R) : Water (H<sub>2</sub>O) has hydrogen and oxygen in the ratio of 1:2 by volume.

Q.9. Assertion (A): Corrosion of iron is commonly known as rusting.

Reason (R) : Corrosion of iron occurs in presence of water and air.

Q.10. Assertion (A) : The balancing of chemical equations is based on law of conservation of mass.

Reason (R) : Total mass of reactants is equal to total mass of products.

#### **4. Balancing equations:**

Take 15 skeleton equations, and solve those in both Hit and trial and ABCD method.

5. Chose any topic from chapter Management of Natural Resource and make a write up adding necessary photos and information's.

## Subject : Maths

1) What will be the least possible number of the planks, if three pieces of timber 42 m, m and 63 m long have to be divided into planks of the same length?

(a) 5 (b) 6 (c) 7 (d) none of these

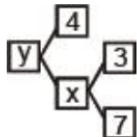
2) If two positive integers a and b are written as  $a = x^3y^2$  and  $b = xy^3$ ; x, y are prime numbers, then HCF (a, b) is

(a) xy (b)  $xy^2$  (c)  $x^3y^3$  (d)  $x^2y^2$

3) Given that  $\text{LCM}(91, 26) = 182$ , then HCF (91, 26) is:

(a) 13 (b) 26 (c) 7 (d) 9

4) The values of x and y in the given figure are:



(a)  $x = 10$ ;  $y = 14$  (b)  $x = 21$ ;  $y = 84$  (c)  $x = 21$ ;  $y = 25$  (d)  $x = 10$ ;  $y = 40$

5) The least number that is divisible by all the numbers from 1 to 10 (both inclusive)

(a) 10 (b) 100 (c) 504 (d) 2520

6) 4 Bells toll together at 9.00 am. They toll after 7, 8, 11 and 12 seconds respectively. How many times will they toll together again in the next 3 hours?

7) Find The largest number which divides 70 and 125, leaving remainders 5 and 8 respectively?

8) Prove that  $(5 + 3\sqrt{2})$  is an irrational number. Given that  $\sqrt{2}$  is irrational.

9) Prove that  $\sqrt{3}$  is irrational.

10) Find Two natural numbers whose sum is 85 and the least common multiple is 102.

11) If one zero of the quadratic polynomial  $x^2 + 3x + k$  is 2, then the value of k is:

(a) 10 (b) -10 (c) 5 (d) -5

12. The zeroes of the quadratic polynomial  $x^2 + 10x + 16$  are:

(a) both +ve (b) both -ve

(c) one +ve and one -ve (d) both equal

13. A quadratic polynomial, whose zeroes are -4 and -5, is

(a)  $x^2 - 9x + 20$  (b)  $x^2 + 9x + 20$

(c)  $x^2 - 9x - 20$  (d)  $x^2 + 9x - 2$

14. The graph of the polynomial  $ax^2 + bx + c$  is an upward parabola if:

(a)  $a > 0$  (b)  $a < 0$  (c)  $a = 0$  (d) None

15. Graph of a quadratic polynomial is a

(a) straight line (b) circle

(c) parabola (d) ellipse

16. The sum and the product of the zeroes of polynomial  $6x^2 - 5$  respectively are

(a) 0,  $-6/5$  (b) 0,  $6/5$  (c) 0,  $5/6$  (d) 0,  $-5/6$

17. Find the quadratic polynomial, the sum of whose zeroes is 8 and their product is 12. Hence, find the zeroes of the polynomial.

18. If  $\alpha$  and  $\beta$  are zeroes of  $x^2 - 4x + 1$ , then find the value of  $1/\alpha + 1/\beta - \alpha\beta$  is

19. If  $\alpha, \beta$  are the zeroes of the polynomial

$p(x) = x^2 - 16$ , then  $\alpha\beta(\alpha + \beta)$

20. If  $\alpha, \beta$  are zeroes of  $x^2 - 6x + k$ , what is the value of k if  $3\alpha + 2\beta = 20$ ?

21. Find the value of 'k' such that the quadratic polynomial  $3x^2 + (2k+1)x - (k+5)$  has the sum of zeroes as half of their product.
22. Find the zeroes of the quadratic polynomial  $6x^2 - 3 - 7x$  and verify the relationship between the zeroes and the coefficient of the polynomial.
23. During a sale, Colom pencils were being sold in pack of 24 each and crayons in pack of 32 each. If you want full packs of both the same number of pencils and crayons, how many of each would you need to buy?
24. Explain why  $(17 \times 5 \times 11 \times 3 \times 2 + 2 \times 11)$  is a composite number?
25. Amita, Sneha, and Raghav start preparing cards for all persons of an old age home. In order to complete one card, they take 10, 16 and 20 minutes respectively. If all of them started together, after what time will they start preparing a new card together?

### **CASE STUDY BASED QUESTIONS :-**

#### **CASE STUDY 1 :**

To enhance the reading skills of the grade X students, the school nominates you and two more of your friends to set up a class library. There are two sections – Section A and Section B of grade X. There are 32 students in Section A and 36 students in Section B.

- (i) What is the minimum number of books you acquire for the class library, so that they can be distributed equally among students of Section A and Section B?  
 (a) 144 (b) 128 (c) 288 (d) 272
- (ii) If the product of two positive integers is equal to the product of their HCF and LCM is true then, the HCF of (32,36) is  
 (a) 2 (b) 4 (c) 6 (d) 8
- (iii) 36 can be expressed as a product of its primes as :  
 (iv)  $7 \times 11 \times 13 \times 15 + 15$  is a  
 (a) Prime number (b) Composite number  
 (c) Neither prime nor Composite  
 (d) None of these
- (v) If p and q are positive integers such that  $p = a \times b \times b$  and  $q = a \times a \times b$ , where a, b are prime numbers, then LCM of (p,q) is  
 (a) ab (b)  $a \times a \times b \times b$  (c)  $a \times a \times a \times b \times b$  (d)  $a \times a \times a \times b \times b \times b$



### **CASE STUDY 2 :**

Junk food is unhealthful food that is high in calories from sugar or fat, with little dietary fibre, protein, vitamins, minerals, or other important forms of nutritional value. A sample of few students have taken. If  $\alpha$  be the number of students who take the junk food,  $\beta$  be the number of students who take healthy food such that  $\alpha > \beta$  and  $\alpha$  and  $\beta$  are the zeroes of the quadratic polynomial  $f(x) = x^2 - 7x + 10$ , then answer the following questions:

- (i) Name the type of expression of the polynomial in the above statement?
- (ii) Find the number of students who take junk food.
- (iii) Find the number of students who take healthy food.
- (iv) Find the quadratic polynomial whose zeroes are -3 and -4
- (v) If one zero of the polynomial  $x^2 - 5x + 6$  is 2 then find other zero

### ART INTEGRATED PROJECT :-

ROLL NO ASSIGNED	TOPIC- MATHS ART INTEGRATED PROJECT OF STATES	REMARKS
1-5	KERALA	SEARCH DETAILS ABOUT THE STATES AND MAKES AN
6-10	SIKKIM	

11-15	MADHYA PRADESH	PROJECT ON IT ON A4 SHEET PAPER OR COLOUR PAPER AND SUBMIT IT AFTER THE BREAK.
16-20	PUNJAB	
21-25	DADRA & NAGAR HAVELI	
26-30	HIMACHAL PRADESH	
31-35	TAMIL NADU	
36-40	JAMMU & KASHMIR	

### MISCELLANEOUS WORK –

1. Write the table 15-25 & remember it .
2. Complete the home work from ncert books chapter – 1,2 .
3. Utilise your time in innovative ideas & try to make a new project of maths related to our surroundings.
4. PRACTICE MATHS IN YOUR LEISURE TIME .

## Subject : Hindi

1. सूरदास के पदों को पढ़कर अपनी भाषा में भावार्थ लिखिए।
2. हिंदी साहित्य जगत के उपन्यास सम्राट मुंशी प्रेमचंद की प्रमुख रचनाओं ( गोदान, कर्मभूमि, पूसकीरात...आदि) को पढ़िए तथा उनकी रचनाओं की क्या विशेषताएं हैं, संक्षेप में लिखिए।
3. सोशल मीडिया पर निबंध लिखिए।
4. बोर्ड की परीक्षा की तैयारी आप किस तरह से कर रहे हैं इसके बारे में अपने मित्र को पत्र लिखिए।
5. मन में सकारात्मक भावनाओं को जागृत रखने के लिए विभिन्न श्रोतों से प्रतिदिन प्रेरणात्मक उद्धरणों को अपनी डायरी में लिखिए।
6. मनोरंजन तथा शिक्षा हेतु निम्नलिखित कुछ फिल्मों को अपने अवकाश के समय में देखिए । इन फिल्मों से हमें क्या सबक मिलते हैं याद रखिए ।

- मेरीकॉम
- ऑलइजवेल
- भागमिल्खाभाग
- ब्लैक

## **Subject :Computer (AI)**

1. Solve IX AI question paper.
2. What are myths about entrepreneurship.
3. List the Sustainable Development Goals laid by UN
4. List various types of intelligence.
5. Difference between human intelligence and artificial intelligence.
6. Name the humanoid robots you know and list few real time application of AI .

## **Subject: Art Education**

1) Draw any one(1) perspective drawing of one point in your drawing book.

For example:- Street Light on Road/ Trees at Garden...etc.

Note:-

- You can take help of Google.
- It is must to apply shading with pencil or colours.

2) Draw your school front view in your drawing and make it colourful.

3) Draw (1) Cover Page for our school magazine.

- Use separate paper sheet for the same.
- It should be neat and clean.
- It must be colourful

# KENDRIYA VIDYALAYA NABARANGPUR

## CLASS-X- S.St. --- Summer Holiday Homework 2023-24

**Q.1- All the students write in their notebook (i.e. Important points, Textbook Question & Answer) from all those chapters of S. St. which have already completed before Summer vacation till 1<sup>st</sup> May 2023.**

**(Memorize and understand it and keep repeating it, so that you don't have problems during PT—1 EXAM.)**

**Q.2- Prepare any social science based ONE PROJECT REPORT**

**Every student has to compulsorily undertake any one project on the following topics:**

**Consumer Awareness**

**OR**

**Social Issues**

**OR**

**Sustainable Development**

with the help of your S. St. Text book + Internet + magazine etc. you can do it...)

\*\*\* In the project report student will be mentioned It's Objectives , how it help in enhancing the life skills of the student, mention some art work or drawing , etc.\*\*\*

**Q.3- All the student related to this class will prepare a Very short type (VSA) Question Bank from each S.ST. portion (300 QUESTION for each portion ) according to the details given below.**

**\*\*\*\* (copy paste is not allowed ...only hand written Q. Bank will be acceptable)**

Questions will be VSA type / MCQ / 1 Word answer / FILL in the blanks types/true-false / Assertion Reason TYPE/ Matching type will be acceptable

(Be sure that no one copy to each other's question banks)

Roll no.1 to 10 (from HISTORY portion 300 Q. )

Roll no. 11 to 20 (from Geography portion 300 Q. )

Roll no. 21 to 30 ( from Civics/Political science chapters 300 Q.)

Roll no. 31 and onwards (from Economics chapters 300 Q.)

**Q.4- On World Environment Day ( 5th June 2023) Do the plantation with your family and click some photo and paste it in your Assignment copy.**

HELLO STUDENTS--- YOU CAN ALSO ENJOY THE SUMMER VACATION WITH FUN AND LEARN / READING- WRITING OR WATCHING SOCIAL ISSUES/HISTORY BASED MOVIE -- LIKE.....

**SOCIAL ISSUES / HISTORY BASED MOVIE- suggested movies any 3)**

-1- Gandhi, 2- The Rising: Balad of Mangal Pandey, 3- Netaji Subhas chandra bose: the forgotten hero, 4- Dr. Baba Saheb Ambedkar, 5- The Legend of Bhagat Singh, 6- JAI Bhim, 7- Article-15, 8- Mulk, 9- Shudras 10- Gargi, 11- Rang De Basanti , 12- JANA GANA MANA, 13- JAYA JAYA JAYA... JAYA HEY or any of your choice but it must be relevant to social science syllabus

**READING PURPOSE-- Suggested Books- (ANY 3)**

- 1- Discovery of India, 2- wings of fire , 3- My experiment with truth, 4- the jungle book , 5- Malgudi Days, 6- Biography of famous politician + sports persons + social workers + warriors etc...

**(BY— MR. DEEPAK KUMAR & AMIT KUMAR YADAV , TGT- S.ST.)**

**— (KV NABARANGPUR)**

Class X - Project Work	10 periods.	5 marks
<p>Every student has to compulsorily undertake one project on</p> <p><b>Consumer Awareness OR Social Issues OR Sustainable Development</b></p> <p><b>Objectives:</b> 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 an interdisciplinary perspective.</p> <p>It should also help in enhancing the Life Skills of the students.</p> <p>Students are expected to apply the Social Science concepts that they have learnt over the years in order to prepare the project report.</p> <p>If required, students may go out for collecting data and use different primary and secondary resources to prepare the project.</p> <p>If possible, various forms of art may be integrated in the project work.</p>	<p>The students need to develop the following competencies:</p> <p>Collaboration</p> <p>Use analytical skills</p> <p>Evaluate the situations during disasters.</p> <p>Synthesize the information</p> <p>Find creative solutions</p> <p>Strategize the order of solutions</p> <p>Use right communication skills</p>	

**Guidelines:**

The distribution of marks over different rubrics relating to Project Work is as follows:

S. No.	Rubrics	Marks
a	Content accuracy, originality and collaborative skills	2
b	Competencies exhibited and Presentation	2
c	Viva	1

- The project carried out by the students should subsequently be shared among themselves through interactive sessions such as exhibitions, panel discussions, etc.
- All documents pertaining to assessment under this activity should be meticulously maintained by the schools.
- A Summary Report should be prepared highlighting:
  - objectives realized through individual work and group interactions;
  - calendar of activities;
  - innovative ideas generated in the process
  - list of questions asked in viva voce.
- 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.
- The Project Report can be handwritten or digital.
- The Project Work needs to enhance cognitive, affective and psychomotor skills of the learners. It will include self-assessment and peer assessment, and progress of the child in project-based and inquiry-based learning, art integrated activities, experiments, models, quizzes, role plays, group work, portfolios, etc., along with teacher assessment. (NEP-2020)
- Must be done at school only as specific periods are allocated for project work.
- The Project work can culminate in the form of Power Point Presentation/Exhibition/Skit/albums/files/song and dance or culture show /story telling/debate/panel discussion, paper presentation and whichever is suitable to Visually Impaired Candidates.
- Records pertaining to projects (internal assessment) of the students will be maintained for a period of three months from the date of declaration of result for verification at the discretion of Board. Sub judice cases, if any or those involving RTI / Grievances may however be retained beyond three months.



**KENDRIYA VIDYALAYA NABARANGPUR  
(BHUBANESWAR REGION)**

**ART INTEGRATED PROJECT WORK 2023 - 24**

**Provided by Central Board of Secondary Education**

**Subject - Social Science )For 10th (**

**Based on Punjab ( Paired state for Odisha )**

**Topic- Glorious History+ Agriculture work +Monuments + Religion +River System+ Role in sports and Army etc.....**

Annexure Sr. No.	Topics	Class Group instruction	Cl
1.5.3	** - Planning and organizing Punjab state festivals like Lohri & Baisakhi.... and celebrations of the community, cultural evenings, musical concerts, and other performances including regional and folk (traditional art forms).	<b>Students group can Choose only 3 topics and Prepare an Art Integrated Project Report.</b>	
1.5.4	** - Participating in study visits in Punjab state like - museums, botanical gardens, zoological garden, Attari Border and Gurudwara, etc., for greater awareness of the environment and cultural variations and write your experience in 250 words	**Choose your Group according to your choices.  **In a group only 4 to 5 student may be involved.	
2.2.2	Songs for community singing -- Five folk or tribal songs of Punjab regions, indicating time of the year, occasion and the function with which they related. Writing down the same with its meaning and knowledge of its rhythm <b>OR</b> Five devotional songs (Bhajans, Shlokas, Hymns,Shabad Kirtan) in PUNJABI LANGUAGE <b>OR</b> Three songs in Punjabi languages other than your mother tongue	**Keep in mind that each group timely submit their work in single file (except project report... it will be differ for each students and merged in same file separately of each students)	
2.3.1	** - To collect photographs of great musicians, with a write-up on their introduction, and all types of musical instruments (photographs/ illustrations) and the artists who play them. (To be pasted in the scrap-book).		

<b>5.1.2</b>	** - Write about Punjab state famous festivals and their culture, tradition , food ,costumes etc. in 500 words. ( A-4 sheets with some Pictures)	***- Each group member can take help of other group to complete their project work timely.
<b>5.2.1</b>	** - Write 2 Song/small stories and 5 slogans about Punjab in Punjabi language with the help of internet	
<b>(5.3.1, 5.3.2, 5.3.3, 5.3.4, 5.1.5)</b>	<p>** -Creation of scrap book that documents the different dance style of Punjab and odisha.</p> <p>**Chart tabulation of costume , identification of dance in Quiz format etc</p> <p>**Dance as the means of communication &amp; how it's affects the social ,cultural, artistic and moral contexts</p>	

**\*\*\*\*\* Important instructions \*\*\*\*\***

- In your Art integrated Report these topics should be mentioned –
- Index, About Project & why this project selected by you & your group.
- How did you make this project?
- How was the Experience?
- Teacher's Acknowledgment.
- Conclusion, Bibliography.....
- Art integrated project must be submitted by students **in group**.

**Compulsory for each and everyone....**

**Last date of submission :- 20-08-2023**

## Guidelines for the Art-Integrated Project Work:

- Projects taken up by students should be age-appropriate and enable them to be developed as independent thinkers and learners.
  - At least one Art-Integrated Project in each subject shall be taken up by all students of classes IX and X. For classes IX and X, the *art integrated project work will be assessed as part of the subject enrichment activity in all the subjects* for internal assessment.
  - **Students will take up integration with any form of Indian Art - visual or performing**, as it will be helpful to students to easily understand the project that is culturally connected to them. Teachers need to facilitate learning of the chosen Indian art form and ensure that the students are able to creatively integrate the art form(s) being used in the project.
  - In **minimum one project work** of students from classes I –X, it is mandatory to integrate any art form of the paired State/UT, as defined under **Ek Bharat Shrestha Bharat Programme**. Since during the last 3 years' students are doing project work involving the same pair of States and UTs, the Board has prepared pairing of States and UTs for academic purpose as given in the **Annexure-I** for Art-Integrated Project work of students in the session 2023-24. This will give an opportunity to the students of CBSE Schools to familiarize with culture, tradition and geography of more States and UTs as envisaged in the Ek Bharat Shrestha Bharat Programme (EBSB).
  - The project should be taken up in an eco-friendly manner, using readily available local resources without any financial burden on parents or guardians.
  - The Project should be done by students in groups with up to **4-5** students in each group.
  - While creating projects, it may also be seen that it should not be so pro- art that it becomes difficult for the subject teacher to take it forward and guide the students. The projects should be simple and doable for the subject teachers and students without the assistance of art teachers/artists or others.
-

केन्द्रीय विद्यालय नबरंगपुरम्  
वर्षम्-2023-24  
ग्रीष्मावकाशस्य गृहकार्यम्

कक्षा- दशमी विषय:- संस्कृतम्

प्रश्नाः-

१. अव्ययानि- अत्र, उच्चैः, कुत्र, अद्य, इदानीम् एतेभ्यः शब्देभ्यः प्रत्येकस्य वाक्य द्वयं निर्माणं कुरुत ।
२. पत्रलेखनं द्वयं स्वेच्छया लिखत ।
३. तत्पुरुष समासस्य पञ्च उदाहरणानि लिखत ।
४. षट् कारकाणां प्रत्येकस्य एकैकं वाक्यं रचयत ।
५. पर्यावरणं विषये दश वाक्यानि लिखत ।
६. सन्धि/सन्धि विच्छेदं वा कुरुत।
  - क. .... + अनन्ताः = ह्यनन्ताः
  - ख. स्यात् + ..... + ..... = स्यान्नैव
  - ग. धूमम् + मुञ्चति = .....
  - घ. .... + नगरात् = अस्मान्नगरात् ।
  - ङ. प्रकृतिः + ..... = प्रकृतिरेव ।
७. रेखांकित - पदमाधृत्य प्रश्ननिर्माणं कुरुत ।
  - क. मानवाय जीवनं कामये।
  - ख. अस्मात् नगरात् बहुदूरम् माम् नय।
  - ग. वायुमण्डलं दूषितं जातम्।
  - घ. उद्याने पक्षीणां कलरवं चेतः प्रसादयति।
  - ङ. प्रस्तरतले लतातरुगुल्माः पिष्टाः न भवन्तु।

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## SUBJECT- ENGLISH

1. Learn and write all the textual questions with their answers taught in the class.
2. Write all the definitions of key words or unfamiliar words of:
  - First Flight- Ch 1,2 & 3
  - Foot Prints Without Feet- Ch 1
3. In this modern world, prices have touched the sky. Everything has become costly. Write an article on 'Price Hike'. You can take help from the following hints.

Hints:

- hike in price is continuously increasing
  - the poor suffer a lot
  - people are unable to get basic necessities Middle class people suffer, for they want to live a cozy life.
  - some people cannot afford to send their children to schools
  - situation must be controlled
4. Taking help from the information given below, write a letter to the Editor of a national daily complaining about the lawlessness and chaos prevailing in your area. Hints:  
many incidents of thefts and robberies
    - chain snatching and eve-teasing
    - criminals having free time
    - police patrolling inadequate
    - law and order must be maintained

You are Maya/ Mohan Sharma of 12, Ramjas Road, Karol Bagh.

5. Write and Prepare a debate on the topic 'Human desires can destroy the world' with reference to the lesson 'Fire and Ice.

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Subject : MATHS

1. Let  $A = \{1,2,3\}$  and consider the relation  $R = \{(1,1),(2,2),(3,3),(1,2),(2,3),(1,3)\}$  then R
2. Let us define a relation R in R as  $aRb$  if  $a \geq b$ . Then R is
3. Let  $A = \{1,2,3\}$ . Find the number of equivalence relations containing  $(1, 2)$ . is
4. Is the relation  $R = \{(1,1),(2,2),(3,3)\}$  on  $\{1,2,3\}$  is equivalence ?
5. If  $A = \{1,2,3\}$ ,  $B = \{4,6,9\}$  and R is a relation from A to B defined by 'x is smaller than y'. The range of R is
6. Let  $f: R \rightarrow R$  defined by  $f(x) = 3x$ . show that f is one-one.
7. If a relation R on the set  $\{1,2,3\}$  be defined by  $R = \{(1,2)\}$ . Can we say that R is transitive?
8. Given set  $A = \{1,2,3\}$  and a relation  $R = \{(1,2), (2,1)\}$ , what order pair we have to include to R that R will be transitive?
9. Let  $A = \{0, 1, 2, 3\}$  and define a relation R on A as follows:  $R = \{(0, 0), (0, 1), (0, 3), (1, 0), (1, 1), (2, 2), (3, 0), (3, 3)\}$ . Is R reflexive? symmetric? transitive?
10. Let  $f: R \rightarrow R$  be the function defined by  $f(x) = 4x - 3 \forall x \in R$ . Then show that f is onto.
11. Prove that the function  $f: R \rightarrow R$ , given by  $f(x) = 2x$ , is one-one and onto.
12. In each of the following cases, state whether the function is one-one, onto or bijective. Justify your answer. (i)  $f: R \rightarrow R$  defined by  $f(x) = 3 - 4x$  (ii)  $f: R \rightarrow R$  defined by  $f(x) = 1 + x^2$
13. Let  $A = R - \{3\}$  and  $B = R - \{1\}$ . Consider the function  $f: A \rightarrow B$  defined by  $f(x) = \frac{x-2}{x-3}$ . Is f one-one and onto? Justify your answer
14. Prove that function  $f: R^+ \rightarrow [7, \infty)$  given by  $f(x) = 16x^2 + 24x + 7$ , where  $R^+$  is the set of all positive real numbers is Bijective .
15. Prove that if  $f: R - \{\frac{7}{5}\} \rightarrow R - \{\frac{3}{5}\}$  is defined by  $F(x) = \frac{3x+4}{5x-7}$  is bijective.

Exercise

1.1 q no. 2,4,8,9,12

Exercise

1.2 q no. 3,4,7,9,10

Exercise

2.1 q no. 4,5,7,11,14

Exercise

2.2 q no. 1,4,6,7,11,13,15,17,18

Miscellaneous exercise

q no. 1,4,7,9

Exercise

3.1 q no. 1,5

Exercise

3.2 q no. 3(i,iv), 5, 7(ii), 10,15,17

- Make MCQ questions from chapter 1, 2 and 3.(atleast 15 from each chapter) . Make answer key with solution if needed.
- Complete activity no 1,2 and 3.
- Make chart of trigonometric functions formula , inverse trigonometric functions formula, differentiation formula and learn them.
- A art integrated project of any topic of class XIIthmaths(atleast 20 pages).( Don't copy, cut,pasteand print)

**Subject : BIOLOGY (044)**

(Do it in separate holiday H.W.copy)

1. Do all the textual question answers of chapter 2 and 3.
2. Make all the well labelled diagram of chapter 2 and 3.
3. Solve all the board questions of last 5 years which are of chapter 2 and 3. Mention year also.
4. Solve all the case based questions of chapter 2 and 3 ,sent earlier.
5. Make 40 MCQ's of your own from chapter 2 and 3.
6. Do NCERT Exemplar questions also from chapter 2 and 3.



## Subject : ENGLISH

1. Revise the TWO lessons and ONE poem done in class.
2. Read the newspaper daily with special emphasis on school based reports. Cut out at least 10 different newspaper reports and use them as a ready reference for report writing. Pay attention to the language used try to get a fair idea of how reports must be written.
- 3- You have realized the necessity of education and financial independence of women for their family, society and in turn for the nation. Write a letter to the editor, The National Times, highlighting your ideas on the importance of education of women leading to a better status for them. You are Tarun/Taruna B-7/9, Mall Road Delhi. You are Sreeja/Thomas.
- 4-Debate—for/against –"Private cars should be banned in the congested commercial areas of the cities"
- 5- Speech :Your PGT English Ms Geetha is a short story writer also. 'Sky is not Far' is a collection of her latest short stories. This book won a national award. Write a speech that you will deliver in her honour in the morning assembly in 150-200 words.
- 6- Cultural Society Sunshine Public School, Nellore organized an Adult Literacy Camp in its neighbourhood. Write a report in 150-200 words on the camp for your school newsletter. You are PV Sunitha, Secretary.
- 7- Hard Work and Punctuality are essential for a happy and successful life.They help in meeting the desired targets of life. You are Kavya/Kanha. Write an article in 150-200 words highlighting the importance of hard work and punctuality in a student's life.
- 8- Make PPT on any two lessons from your English book VISTAS.
- 9- Prepare a Write up in about 2000 words on G20 ( Prepare it in a Project file)

## Subject : CHEMISTRY

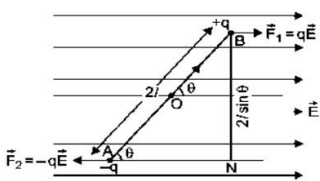
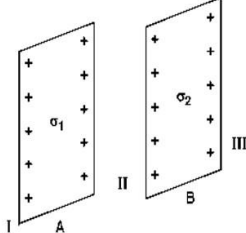
1. Benzene and toluene form nearly ideal solution. At a certain temperature, calculate the vapour pressure of solution containing equal moles of the two substances .  
(Hint:- $P_o$  benzene -150 mm of Hg ,  $P_o$  toluene- 55 mm of Hg )
2. Define azeotropes with one example of each type ?
3. what is the maximum value of van't Hoff's factor :
4. Give reason (i) Aquatic species are more comfortable in cold waters than in warm waters.  
(ii) To avoid bends scuba divers use air diluted with helium?
5. Calculate the molarity of a solution prepared by mixing 500ml of 2.5 M urea solution and 500ml of 2M urea solution?
6. Under what condition is Van't Hoff factor less than one ?
7. Gases tend to be less soluble in liquids as the temperature is raised. Why?
8. A and B liquids ,on mixing, produce a warm solution, which type of deviation from Raoult's law is there?
9. Explain :- Ionic compounds are soluble in water but are insoluble in a non polar solvents?
10. Addition of  $HgI_2$  to  $KI(aq)$ . shows decrease in vapour pressure. Why?
11.  $N_2$  and  $O_2$  gases have KH values 76.48 kbar and 34.86 kbar respectively at 293 K temperature. Which one of these will have more solubility in water?
12. Account for the following . (a)  $CaCl_2$  is used to clear snow from roads to hill stations . (b) Ethylene glycol is used as antifreeze solution in radiators of vehicles in cold countries ?
13. Why do colligative properties of solution of a given concentration are found to give abnormal molecular weight of solute. Explain with the help of suitable examples?
14. State Henry's law .
15. Osmotic pressure of a 0.0103 molar solution of an electrolyte was found to be 0.75 atm at  $27^\circ C$ . Calculate Van't Hoff factor.
16. An aqueous solution of 3.12 g of  $BaCl_2$  in 250g of water is found to boil at  $100.0832^\circ C$ . Calculate the degree of dissociation of  $BaCl_2$ . Given that the value of  $K_b(H_2O)=0.52K/m$ ?

17. Calculate the mass percentage of benzene ( $C_6H_6$ ) and carbon tetrachloride ( $CCl_4$ ) if 22 g of benzene is dissolved in 122 g of carbon tetrachloride?
18. The mole fraction of  $CH_3OH$  in an aqueous solution is 0.02 and its density is  $0.994\text{gcm}^3$ . Determine its molarity and molality?
19. What is the molar concentration of particles in human blood if the osmotic pressure is 7.2 atm at normal body temperature of  $37^\circ\text{C}$ ?
20. Mention unit of ebullioscopic constant ?

# KENDRIYA VIDYALAYA NABARANGPUR

SUB:- PHYSICS CLASS XII 2023-24

## PRACTICE PAPER UNIT- I-ELECTRIC CHARGES AND FIELDS

S N	Question	Ma rks
1	Two-point charges + Q and + q is separated by a certain distance. If + Q > + q then in between the charges the electric field is zero at a point (a) closer to + Q      (b) exactly at the mid-point of line segment joining + Q and + q. (c) closer to + q      (d) nowhere on the line segment joining + Q and + q.	1
2	<b>Assertion:</b> A metallic shield in form of a hollow shell may be built to block an electric field. <b>Reason:</b> In a hollow spherical shield, the electric field inside it is zero at every point. a- Both assertion and reason are correct and the reason is the correct explanation of assertion. b- Both assertion and reason are correct and reason is not a correct explanation of assertion. c- Assertion is correct but the reason is incorrect d- Assertion is incorrect but the reason is correct.	1
3	Electric lines of force about a negative point charge are (a) circular anticlockwise      (b) circular clockwise (c) radial, inwards      (d) radial, outwards	1
4	The electric field at a point on equatorial line of a dipole and direction of the dipole moment (a) will be parallel      (b) will be in opposite direction (c) will be perpendicular      (d) are not related	1
5	Two identical metallic spheres of exactly equal masses are taken. One is given a positive charge 'q' and other an equal negative charge. Are their masses after charging equal?	2
6	An electric dipole free to move is placed in an electric field. What is the action on it, when it is placed in (a) a uniform electric field (b) a non-uniform electric field?	2
7	Derive a relation for the intensity of electric field at an equatorial point of an electric dipole.	3
	<p><b>Case study-based questions (questions no 8- 11)</b></p> <p>In a uniform electric field of strength E, the net electric force is zero; but a torque equal to pE sin θ acts on the dipole (where θ is the angle between directions of dipole moment p and electric field E). This torque tends to align the dipole along the direction of electric field. Torque in vector form <math>\vec{\tau} = \vec{p} \times \vec{E}</math></p> <div style="text-align: right;">  </div> <p>8. When is the torque applied is maximum? <span style="float: right;">1</span></p> <p>9. What is the direction of torque applied <span style="float: right;">1</span></p> <p>10. What is net force and net when an electric dipole is placed in uniform electric field? <span style="float: right;">2</span></p> <p style="text-align: center;"><b>OR</b></p> <p>10. What is net force and net when an electric dipole is placed in non-uniform electric field? <span style="float: right;">2</span></p>	4
11	<p>(a) A point charge (+Q) is kept in the vicinity of uncharged conducting plate. Sketch electric field lines between the charge and the plate.</p> <p>(b) Two infinitely large plane thin parallel sheets having surface charge densities <math>\sigma_1</math> and <math>\sigma_2</math> (<math>\sigma_1 &gt; \sigma_2</math>) are shown in the figure. Write the magnitudes and directions of the net fields in the regions marked II and III.</p> <div style="text-align: right;">  </div>	5

1 2	Derive an expression for the electric field at a point on the axial position of an electric dipole.
13	Derive an expression for the electric field at a point on the equatorial position of an electric dipole.
14	State Gauss theorem and apply it to find the electric field at a point due to (a) a line of charge (b) A plane sheet of charge (c) A Charged spherical conducting shell
15	State Coulomb's law and express it in vector form. Derive it using Gauss theorem. 8. Derive an expression for the torque on an electric dipole in a uniform electric field.
16	Derive an expression for force and torque on an electric dipole in a uniform electric field.
17	Derive the expression for the electric potential at any point along the axial line of an electric dipole
18	Two point charges, $q_1 = 10 \times 10^{-8} \text{C}$ , $q_2 = -2 \times 10^{-8} \text{C}$ are separated by a distance of 60 cm in air. Find at what distance from the 1st charge, $q_1$ would the electric potential be zero.

## कक्षा – 12वी (हिंदी -अ)

ग्रीष्म कालीन अवकाश गृहकार्य

1. काव्य या गद्य की किसी भी विधा (लेखन शैली) में अपना आत्मपरिचय लगभग 100 शब्दों में लिखिए ।
2. किसी भी विषय पर एक मौलिक कहानी की रचना कीजिए।
3. आत्म परिचय / दिन जल्दी ... कविता के आधार पर समय समायोजन का महत्त्व विषय पर सारगर्भित लेख लिखिए ।
4. गद्य भाग में पढ़ाए गए सभी पाठों की पुनरावृत्ति करें तथा प्रश्न उत्तर याद करें।
5. अपने पाठ्य पुस्तक में से कोई 2 कविता याद कीजिए। तथा उनका भावार्थ अपने शब्दों में लिखिए ।

## **Subject : Computer Science**

1. Complete the notes of functions as per the PPT shared.
2. What do you understand by platform independent language?
3. Python is dynamic typed language. Justify your reason.
4. Write the down functions that are used with lists and explain with example.