Class-X English
ASSIGNMENT-1 NELSON MANDELA: LONG WALK TO FREEDOM

I. **Assertion and Reason-Based Questions**

   Choose the correct option for the questions below:

1. Assertion (A): Nelson Mandela believed that courage was not the absence of fear but the triumph over it.

   Reason (R): Mandela always felt fearless in the face of danger.

   (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

2. Assertion (A): Mandela believed every man has twin obligations—towards his family and his people.

   Reason (R): He felt fulfilling one's duty to family was enough for national development.

   (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

3. Assertion (A): Mandela's inauguration as the first black President was held at the Union Buildings.

   Reason (R): The Union Buildings symbolised the triumph of white supremacy.

   (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

4. Assertion (A): According to Mandela, freedom is an individual's birthright.
   Reason (R): He always enjoyed absolute freedom during his childhood.

   (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

II. Long Answer / Competency-Based Question

5. Nelson Mandela speaks of the twin obligations of every man. How did he struggle to achieve them in the face of apartheid? Explain with examples from the text. (100–120 words)

ASSIGNMENT-2
TWO STORIES ABOUT FLYING – PART I (His First Flight)

I. Assertion and Reason-Based Questions

1. Assertion (A): The young seagull was afraid to fly.

   Reason (R): He lacked the ability to flap his wings.

   (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

2. Assertion (A): The young seagull's family left him alone on the ledge.

   Reason (R): They wanted to teach him a lesson and encourage him to fly.

   (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

3. Assertion (A): The seagull's flight was a turning point in his life. Reason (R): He gained confidence and overcame his fear.

   (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

4. Assertion (A): The mother seagull dropped a piece of fish to lure the young one.

   Reason (R): She was trying to teach the value of hunger.

   (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

II. Long Answer / Competency-Based Question

5. What role does the young seagull's fear and eventual courage play in the story? How does it connect to real-life situations involving growth and confidence? (100–

120 words)

ASSIGNMENT-3
TWO STORIES ABOUT FLYING – PART II (Black Aeroplane)

I. Assertion and Reason Based Questions

1. Assertion (A): The pilot flew the Dakota into stormy clouds.

   Reason (R): He was eager to reach home quickly for breakfast.

   (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

2. Assertion (A): The black aeroplane had no record on the radar.

   Reason (R): The pilot hallucinated the black aeroplane due to panic.

   (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

3. Assertion (A): The narrator was guided to safety by another pilot.

   Reason (R): The narrator's plane had lost contact with air traffic control.

   (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

4. Assertion (A): The narrator never got to thank the pilot of the black aeroplane.

   Reason (R): The mysterious pilot and plane vanished after helping him land safely.

   (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

II. Long Answer / Competency-Based Question

5. The story ends on a mysterious note. How does this mystery add to the thrill of the narrative and reflect the theme of hope and guidance in critical times? (100–120 words)

ASSIGNMENT-4 THE THIEF'S STORY

I. Assertion and Reason-Based Questions

1. Assertion (A): Hari Singh planned to rob Anil from the very beginning.
   Reason (R): He was desperate and dishonest by nature.

   (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

2. Assertion (A): Anil's trust in Hari Singh helped transform him.

   Reason (R): Trust and kindness can bring about change in people.

   (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

3. Assertion (A): Hari Singh returned the stolen money.

   Reason (R): He felt guilty and wanted to become an honest man.

   (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

4. Assertion (A): Anil noticed the theft the next morning.

   Reason (R): He pretended not to notice, giving Hari Singh another chance.

   (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

II. Long Answer / Competency-Based Question

5. Hari Singh had a chance to change his life. What made him take the honest path, and how does the story show the power of kindness and trust? (100–120 words)

ASSIGNMENT-5

A TIGER IN THE ZOO (FIRST FLIGHT- POETRY)

I. Assertion and Reason Based Questions

Choose the correct option for the questions below:

1. **Assertion (A):** The tiger in the poem walks silently in his cage, expressing his helpless anger.

   Reason (R): The poet wants to show that wild animals belong in their natural habitat, not in cages.

   (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

2. **Assertion (A):** The poet describes the tiger's stripes as "vivid" to highlight its beauty.

   Reason (R): The vivid stripes make the tiger easy to spot in the forest.

   (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

3. **Assertion (A):** The tiger's presence in the zoo is calm and majestic. **Reason (R):** The poet describes the tiger's "pads of velvet" and "quiet rage".

   (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

II. Poetic Devices

4. Identify the poetic device used in the line:

"He stalks in his vivid stripes"

- (a) Alliteration
- (b) Metaphor
- (c) Simile
- (d) Personification

III. Long Answer Question

5. The poet draws a contrast between the tiger's natural behavior in the wild and its restricted movement in the zoo. How does this highlight the theme of captivity and lost freedom? (100–120 words)

ASSIGNMENT-6 HOW TO TELL WILD ANIMALS (FIRST FLIGHT- POETRY)

I. Assertion and Reason Based Questions

Choose the correct option for the questions below:

1. **Assertion (A):** The poem uses humour to describe wild animals and their characteristics.

   Reason (R): The poet wants to make the readers laugh while also helping them identify animals.

(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

2. **Assertion (A):** The poet says you'll know it's an Asian Lion if it roars while killing you.

Reason (R): The poem is serious in tone and meant to warn people about jungle dangers.

(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

3. **Assertion (A):** The poem helps in identifying wild animals based on their behavior and appearance.

Reason (R): Each stanza gives humorous clues about animals like lions, tigers, and bears.

(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

II. Poetic Devices

4. Identify the poetic device used in the line:

"If he roars at you as you're dying then you'll know it is the Asian Lion"

(a) Irony

(b) Personification

(c) Hyperbole

(d) Metaphor

III. Long Answer Question

6. "How to Tell Wild Animals" uses exaggeration and humour to describe encounters with ferocious beasts. How does this style make the poem enjoyable while still being informative? (100–120 words)

ASSIGNMENT-7 FROM THE DIARY OF ANNE FRANK

I. Assertion and Reason Based Questions

1. Assertion (A): Anne Frank decided to keep a diary. Reason (R): She had no real friend to confide in.

   (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

2. Assertion (A): Anne's father was the most adorable person for her.

   Reason (R): He was gentle and supportive during their time in hiding.

   (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

3. Assertion (A): Anne was a shy and introverted girl.

   Reason (R): Her diary entries reveal her social and expressive nature.

(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

4. Assertion (A): The diary became Anne's best friend.

Reason (R): It was a way for her to express thoughts she could not share with others.

(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

II. Long Answer / Competency-Based Question

5. Anne Frank's diary reveals her thoughts, fears, and hopes during a difficult time. How does her writing reflect the power of expression and emotional resilience?

(100–120 words)

ASSIGNMENT-8 WRITING: LETTER TO COMPLAIN

Q1. India is a highly populated country. People lack in maintaining proper sanitation and hygiene as a result they suffer from various diseases. India has a serious sanitation challenge; around 60 per cent of the world's open defecation takes place in India. Poor sanitation causes health hazards including diarrhea, particularly in children under 5 years of age, malnutrition and deficiencies in physical development and cognitive ability. You are Nitish /Nikita, head boy/girl of Anand Public School, Jaipur. Write a letter to the editor of a national daily, highlighting the problem and suggesting practical ways to ensure public sanitation and the right to dignity and privacy. (100-120 words)

Q2. You are Abhinav/Ananya, a resident of A-35, Paschim Puri, New Delhi, and a customer of Reliance Electronics, Pitampura, New Delhi. Write a letter to the Manager complaining about the defective washing machine delivered to you and requesting a replacement at the earliest.

Maths

CLASS X

ASSIGNMENT

CH- REAL NUMBERS

1. Using Prime factorisation , find the HCF of:

(i) 210 and 55   (ii) 300, 540, 890

2. A merchant has 105 litres of oil of one kind, 140 litres of second kind and 175 litres of third kind. He wants to sell the oil by filling the three kinds of oil in tins of equal capacity. What should be the greatest capacity of such tin?

3. Express each of the following integers as the product of its prime factors:

(i) 1386   (ii) 2184

4. Find LCM and HCF of the following pairs of integers and verify that LCM × HCF = Product of integers:

(i) 63 and 168   (ii)) 510 and 92

5. Find LCM and HCF of the following pairs of integers by applying prime factorization method:

(i) 12, 15 and 21   (ii) 225, 336 and 360

6. The HCF and LCM of two numbers are 145 and 2175 respectively. If one of these numbers is 725, find the other number.

7. The product of two numbers is 20736 and their HCF is 54. Find their LCM.

8. The LCM of two numbers is 192 and their product is 3072. Find their HCF.

9. Show that the following numbers are irrational:

(i) $\sqrt{5}$ (ii) $2 + \sqrt{3}$

10. Without actually performing the long division, state whether the following rational number will have terminating decimal expansion or a non-terminating repeating decimal expansion:

(i) 13/ 121   (ii) 19 /45   (iii) 108 /250   (iv) 517 /2000

11. Write down the decimal expansions of the following rational numbers by writing their denominators in the form $2^m \times 5^n$ where m, n are non-negative integers.

(i) 5/ 8   (ii) 17 /2000

1. For what values of a and b will the equations $x + 2y = 1$ and

   $(a - b)x + (a + b)y = a + b - 2$ have an infinite number of solutions?

2. For what value of k, the following pair of equations has no solution?

   $Kx + 3y = k - 3$; $12x + ky = k$

3. Determine graphically whether the following pairs of equations are

   consistent or inconsistent:

   $X - 5y = 6$, $2x - 10y = 12$

4. Solve for x and y:

   i) $2(x + 3) + 3(y - 1) = 8$

           $3(x -- 2) + 2(y + 2) = 3$

   ii) $mx - ny = m^2 + n^2$

           $x - y = 2n$

5. A railway half ticket costs half the full fare, but the reservation charges
   are the same on a half ticket as on a full ticket. One reserved first class
   ticket from the station A to B costs Rs.2530. Also, one reserved first class
   ticket and one reserved first class half ticket from station A to B costs
   Rs.3810. find the full first class fare from station A to B, and also the
   reservation charges for a ticket.

6. Write an equation of a line passing through the point representing
   solution of the pair of linear equations $x + y = 2$ and $2x - y = 1$. How
   many such lines can we find?

CH- Quadratic Equations

Q1. Find the value of k in each of the following quadratic equations, for which the given value of x is a root of the given quadratic equation.

(a) $3x^2 - kx - 2 = 0$, x = 2   (b) $14x^2 - 27x + k = 0$; x = 5/2

Q2. Solve the following quadratic equations:

(a) $\sqrt{3}x^2 + 10x + 7\sqrt{3} = 0$ (b) $4x^2 - 4a^2x + (a^4 - b^4) = 0$

Q3. The sum of two numbers is 15. If the sum of their reciprocals is 3/10. Find the numbers.

Q4. The product of two consecutive odd numbers is 483. Find the numbers.

Q5. The numerator of a fraction is one more than its denominator. If its reciprocal is subtracted from it, the difference is 11/30. Find the fraction.

Q6. A two digit number is such that the product of the digits is 14. When 45 is added to the number, then the digits interchange their places. Find the number.

Q7. The sum of ages of a son and his father is 35 years and the product of their ages is 150. Find their present ages.

Q11. The age of a father is equal to the square of the age of his son. The sum of the age of the father and five times the age of the son is 66 years. Find their present ages.

Q12. The hypotenuse of a right angled triangle is 6m more than twice the shortest side. If the third side is 2m less than the hypotenuse, find the sides of the triangle.

Q13. A rectangular field is 16m long and 10m wide. There is a path of uniform width all around it, having an area of 120 sq.cm. Find the width of the path.

ASSIGNMENT
Polynomials

Q.1. If one zero of $2x^2 - 3x + k$ is reciprocal to the other, then find the value of k.

Q.2. If the sum of the squares of zeroes of the quadratic polynomial $t(x) = -x^2 + 4x + k$ is 20, then find the value of k.

Q.3. If one zero of the polynomial $(a^2 + 9)x^2 + 13x + 6a$ is reciprocal of the other, then find the value of a.

Q.4. If α and β are zeroes of the quadratic polynomial $p(x) = -x^2(k - 6)x + 2(2k - 1)$, then find the value of k, if $\alpha + \beta = \dfrac{\alpha\beta}{2}$.

Q.5. If the zeroes of the polynomial $x^2 + px + q$ are double in value to the zeroes of $2x^2 - 5x - 3$, then find the value of p and q.

Q.6. Find the zeroes of the following polynomial by factorization method and verify the relations between the zeroes and their coefficients

(i) $7y^2 - \dfrac{11}{3}y - \dfrac{2}{3}$ (ii) $3x^2 + 10\sqrt{7}\,3x + \sqrt{}$ (iii)

$\sqrt{}\quad 3x^2 + -\sqrt{8}\,2\sqrt{3}x$

Q.7. If the sum of the zeroes of the polynomial $p(x) = (a + 1)x^2 + (2a+3)x + (3a+4)$ is -1, then find the product of its zeroes.

Q.8. If $(x + a)$ is a factor of two polynomials $x^2 + px + q$ and $x^2 + mx + n$, then prove that $a = \dfrac{n - q}{m - p}$

Q.9. Can the quadratic polynomial $x^2 + kx + k$ have equal zeroes for some odd integer $k > ?$

Q.10. If the zeroes of the polynomial $ax^2 + bx + b = 0$ are in the ratio m : n, then

Q.11. If α and β are the zeroes of the quadratic polynomial $f(x) = px^2 + qx + t$, then evaluate:

$\dfrac{1}{\alpha} + \dfrac{1}{\beta}$, $p\alpha + q$, $p\beta + q$

ASSIGNMENT

PROBABILITY

Q.1. Cards marked with numbers 5 to 75 are placed in a box and mixed thoroughly. One card is drawn from the box. Find the probability that the number on the card is odd.

Q.2. A number is chosen from 1 to 100. Find the probability that it is a prime number.

Q.3. A die is thrown once. Find the probability of getting a number which is not a factor of 36.

Q.4. A number x is selected at random from the numbers 1, 4, 9, 16 and another number y is selected at random from the numbers 1, 2, 3, 4. Find the probability that the value of xy is more than 16.

Q.5. Find the probability that a non-leap year selected at random will contain 53 Sundays.

Q.6. The probability of guessing the correct answer to certain question is $p/12$. If the probability of not guessing the correct answer to same question is 3/4 then find the value of p.

Q.7. A girl calculates that the probability of her winning the first prize in a lottery is 0.08. If 6000 tickets are sold then how many tickets has she bought?

Q.8. Amrish wakes up in the morning and notices that his digital clock reads 07:25 am. After noon, he looks at the clock again.
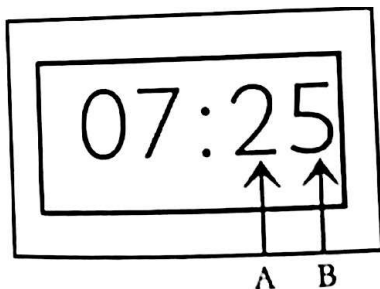
What is the probability that:

(A) the number in column A is 4?

(B) the number in column B is 8?

Q.9. A number x is chosen at random from the numbers –4, –3, –2, –1, 0, 1, 2, 3, 4. What is the probability that $|x| < 2$.

Q.10. Two friends were born in the year 2000. What is the probability that they have the same birthday?

Q.11. An integer is chosen at random between 1 and 100. Find the probability that it is

(i) divisible by 8   (ii) not divisible by 8.

Q.12. A number is selected from the numbers 2, 3, 3, 5, 5, 5, 7, 7, 7, 7, 9, 9, 9, 9, 9 at random. Find the probability that the number selected is   (i) their median.

(ii) their mode.

Q.13. In a game, the entry fee is ₹5. The game consists of tossing a coin 3 times. If one or two heads show, Sweta gets her entry fee back. If she tosses 3 heads, she receives double the entry fee. Otherwise, she will loss. For tossing a coin three times, find the probability that she   (i) losses the entry fee.

 (ii) gets double entry fee.   (iii) just gets her entry fee.

ASSIGNMENT

CH-COORDINATE GEOMETRY

1. Find out the value of a, when the distance between the points P (–3, –14) and Q (p, –5) is 9 units.
2. Find out the value of m when the points (5, 1), (–2, –3) and (8, 2m) are collinear.
3. In what ratio does the x-axis divide the line segment that joins the points (–4, – 6) and (–1, 7)? Find out the coordinates of the point of division.
4. Name the type of the triangle formed by the points S (–5, 6), T (–4, –2) and U (7, 5).
5. Determine the ratio at which the line 2x + y – 4 = 0 divides the line segment joining to the points A(2, –2) and B(3, 7).
6. Find out the centre of the circle passing through the points (6, -6), (3, -7) and (3, 3).
7. Show that the triangle PQR formed by the points P (√2, √2), Q (-√2, √2) and R (-√6, -√6) is an equilateral triangle.
8. **Find the ratio in which the line segment joining the points (– 3, 10) and (6, – 8) is divided by (– 1, 6).**

<u>Science</u>

CHEMISTRY ASSIGNMENT
CHAPTER 1: CHEMICAL REACTIONS AND EQUATIONS, CHAPTER 2: ACIDS, BASES AND SALTS

Q1. Eight identical, iron blocks are placed on the ground in the two arrangements X and Y as shown below. The block arrangements are kept moist by sprinkling water every few hours. Which of the arrangements is likely to gather more rust after ten days? Justify your answer.
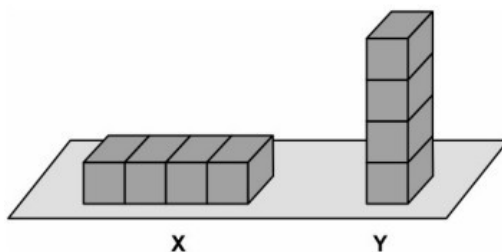
Q2. The diagram below shows the set-up in which electrolysis of water takes place
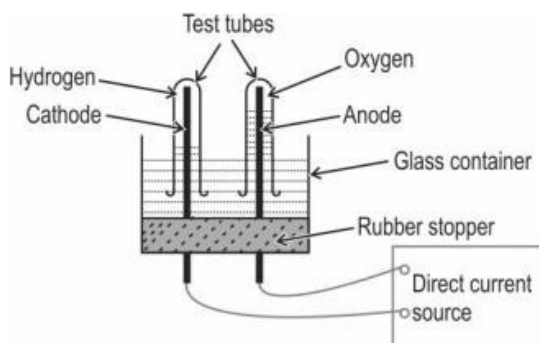
(a) What type of reaction takes place?

(b) Explain why this is an example of an endothermic reaction?

(c) The test tube containing hydrogen is removed carefully from the apparatus. A lit match stick is brought near the mouth of this test tube. The gas burns with an explosive "pop" sound. Write a balanced chemical equation for this reaction and indicate whether energy is absorbed or released.

Q3. 1g of copper powder was taken in a china dish and heated. What change takes place on heating? When hydrogen gas is passed over this heated substance, a visible change is seen in it. Give the chemical equation of reactions, the name and the colour of the products formed in each case.

Q4. No chemical reaction takes place when granules of a solid, A, are mixed with the powder of another solid, B. However, when the mixture is heated, a reaction takes place between its components. One of the products, C, is a metal and settles down in the molten state while the other product, D floats over it. It was observed that the reaction is highly exothermic.

(i) Based on the given information make an assumption about A and B and write a chemical equation for the chemical reaction indicating the conditions of reaction, physical state of reactants and products and thermal status of reaction.

(ii) Mention any two types of reaction under which above chemical reaction can be classified.

Q5. A silver article generally turns black when kept in the open for a few days. The article when rubbed with toothpaste again starts shining.

(a) Why do silver articles turn black when kept in open for a few days? Name the phenomenon involved.

(b) Name the black substance formed and give its chemical formula

Q6. Colours shades A pH paper changes its colour depending on the pH value of the substance it is dipped in. The picture shows the different colours of a pH paper.

Colours shades

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14

increase in acidity   neutral   increase in basicity
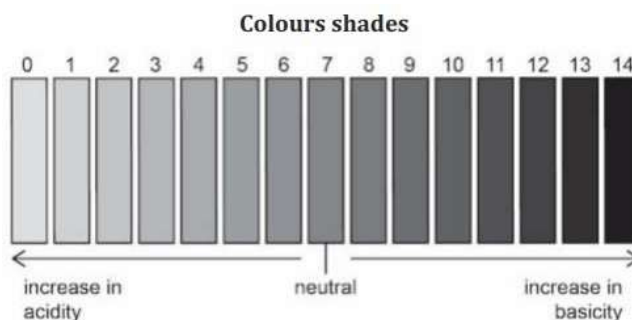
Leena tested the pH value of the four liquids using the pH paper. The table shows the shade of the pH paper after it is dipped separately in the four liquids.

	Liquid 1	Liquid 2	Liquid 3	Liquid 4
Shade of the pH paper	Colour 9	Colour 12	Colour 5	Colour 3

a) Which liquid has the lowest concentration of hydrogen ions?

b) Leena was advised by her teacher to wear gloves and use forceps while dipping the pH paper in the liquids. What was the reason for this advice?

c) What should be the colour of a pH paper after it is dipped in distilled water?

Q7. Madhav took 10 g of a green salt powder in a covered beaker. He heated the beaker for 15 minutes. Madhav noticed that the salt powder turned whitish after 15 minutes. He also found some droplets on the inner surface of the beaker cover.
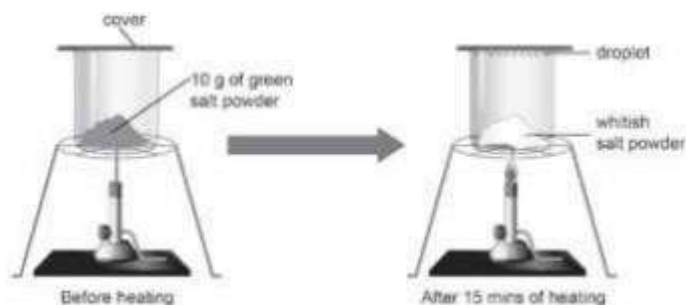
Madhav added a few drops of water to the whitish powder, the powder again turned green.

a) What can be concluded about the green salt powder from Madhav's activity?

b) Madhav repeated the same activity but kept the beaker uncovered.

c) Madhav repeated the same experiment with copper sulphate crystals. Explain the color change.

d) Write the chemical equation involved in both the reactions above.

Q8. Mike placed an electric circuit separately in a dilute acid and a dilute base.
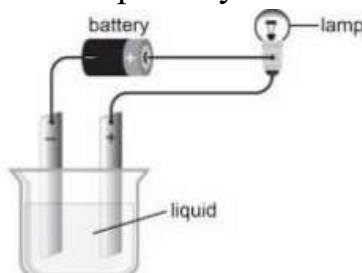
Mike observed whether the lamp in the circuit glowed or not for each liquid.

a) Which property of acids and bases was Mike trying to test through his experiment?

b) Will the lamp glow if the circuit is placed in distilled water? Explain your answer.

c) Acid + Metal →Salt + X . What is X in the equation?

Q9. Give reason:

a) Why should curd and other sour foodstuffs not be kept in the metal container?

b) Rubbing the leaf of dock plant reduces the effect of nettle sting.

c) Sodium acetate is a basic salt.

Q10. Write the chemical formulae and name of the following 'common name' of compounds:

a) Slaked lime

b) Quick lime

c) Bleaching powder

d) Baking soda

e) Baking powder

f) Washing soda

g) Caustic soda

h) Gypsum

i) Plaster of Paris

j) Table salt

k) Marble

l) Vinegar

m) Milk of magnesia

n) Green vitrol

o) Blue vitrol

p) Chloroform

PHYSICS

Assignment -1 Que1. Case Study-Based Question.

Ravi was doing an experiment with a concave mirror in the lab. He placed a lit candle 25 cm in front of the mirror. He observed a sharp, inverted image formed on a screen 50 cm away on the same side of the mirror.

a) What is the focal length of the mirror? [Ans -16.67 cm]

b) What is the nature of the image formed? [Ans Real and inverted]

c) If Ravi moved the candle closer to 10 cm from the mirror, describe the change in the image. [Ans 25 cm]

Que2. An object is placed at a distance of 30 cm from a concave mirror of focal length 15 cm. Use the mirror formula to find the position and nature of the image. Also calculate the magnification. [Ans. v = -30 cm & m = -1]

Que3. A convex mirror used in a vehicle has a focal length of 20 cm. An object is 60 cm from the mirror. Find the image distance and state whether the image is real or virtual, magnified or diminished. [Ans. v = 15 cm & m= 0.25]

Que4. State the type of mirror used in the following and give one reason for your answer:

(a) Rear-view mirror of a vehicle

(b) Solar furnace

Que5. If the magnification produced by a mirror is +1, what can you say about the type of mirror and position of the object?

Que6. The image formed by a mirror has a magnification of -0.5. Name the type of mirror and state the position of the object.

Que7. An object is placed at a distance of 20 cm from a concave mirror of focal length 10 cm.

(a) Find the position and nature of the image. [Ans. v = -20 cm]

(b) Also, calculate the magnification. [Ans. m = -1]

Que8.(a)Define magnification.

(b)A concave mirror forms a real and inverted image of an object 4 times the size of the object. If the object is placed 20 cm in front of the mirror, find the position of the image. [Ans. v = -80 cm]

Que9. Why is concave mirror known as converging mirror?

Que10. Study the data given below showing the focal length of three concave mirrors A. B and C and the respective distances of objects placed in front of the mirrors:

Case	Mirror	Focal Length (cm)	Object Distance (cm)
1	A	20	45
2	B	15	30
3	C	30	20

(i)   In which one of the above cases the mirror will form a diminished image of the object? Justify your answer.   **[Ans. In case 1]** (ii)   List two properties of the image formed in case 2.

(iii)   What is the nature and size of the image formed by mirror C? Draw ray diagram to justify your answer.

(iv)   An object is placed at a distance of 18 cm from the pole of a concave mirror of focal length 12 cm. Find the position of the image formed in this case.   **[Ans. v = -36 cm]**

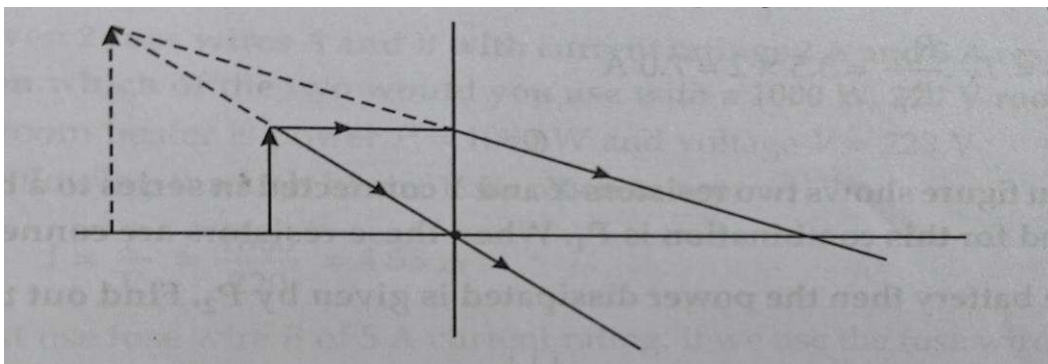Que11. (A) Complete the following ray diagram to show the formation of image:

(B) Mention the nature, position and size of the image formed in this case.
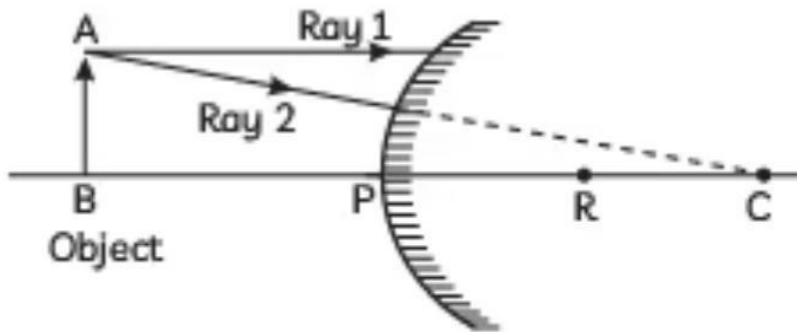
(C) State the sign of the image distance in this case using the Cartesian sign convention.

Assignment -2

Que1. The below figure shows the formation of an image by a lens shown by a thick line.

Analyse the figure and answer the following questions:

(a) What is the type of lens used?

(b) What is the nature of the image?

(c) If the image is formed at a distance of 30 cm from the lens and the image is twice the size of the object, then where is the object placed? **[Ans. u = 15cm]**

Que2. In our laboratories we use compound microscopes to see the magnified image of a microscopic object. A compound microscope is made up of two lenses. The lens nearest to the object to be viewed, called objective lens, forms real, inverted and magnified image of the object. This image serves as an object for the second lens called eyepiece. The eyepiece forms virtual, erect and magnified image of its object. Thus, the resultant image formed by a microscope is virtual, inverted and magnified with respect to the microscopic object viewed.

(a) The image of an object formed by a convex lens of focal length 2 cm is real, inverted and magnified. What is the range of object distance in this case ? **[Ans. Image is real, inverted & maginified if 2 cm < u < 4 cm]**

(b) The image of an object formed by a convex lens of focal length 6 cm is virtual, erect and magnified. What is the range of object distance in this case? **[Ans. Image is virtual, erect & magnified if u < 6 cm]**

(c) An object is placed at a distance of 12 cm from the optical centre of a convex lens of focal length 18 cm. Draw a labelled ray diagram to show the formation of image in this case.

(d) The image formed by a convex lens is real, inverted and of the same size as the object. If the distance between the objects and the image is 60 cm, determine the focal length of the lens. Give justification for your answer. **[Ans. f = 15 cm]**

Que3. We have two lenses, lens A of focal length 20 cm and lens B of focal length 50 cm.

(i) Power of which lens is more?

(ii) Give reason for your answer.

Que4. . In the adjoining figure, AB is a linear object and A'B' is its image formed by a lens.
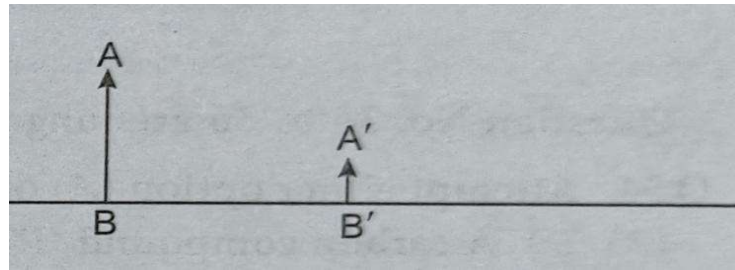
(a) What type of lens it is ?

(b) Where is the lens located?

(c) Complete the ray diagram. Mark the focus and optical centre of the lens by the letter F and O respectively.

Que5.(a) State Lens formula.

(b) An object is placed at a distance of 60 cm from a concave lens of focal length 30 cm.

(i) Use lens formula to find the distance of the image from the lens. **[Ans. v = -20 cm]**

(ii) List four characteristics of the image (nature, position, size, erect/inverted) formed by the lens in this case.

(iii) Draw a ray diagram to justify your answer of part (ii).

Que6.(a) What do you mean by power of a lens ?

(b) Name and define SI unit of power.

(c) Rama uses a convex lens of focal length 20 cm. Write the power of given lens with its sign. **[Ans +5 D]**

Que7. Show the path of refracted ray formed on refraction through a convex lens when :

(i) incident ray is parallel to the principal axis of lens.

(ii) incident ray passes through principal focus of lens.

Que8. (a) A convex lens can form (i) a magnified and erect image as well as (ii) a magnified and inverted image of an object placed in front of it. State the requisite conditions.

(b) An object of height 6 cm is placed at a distance of 20 cm from a concave lens of focal length 10 cm. Use lens formula to find the position of the image formed. Also find the length of image.

[Ans. v = - 6.66 cm & h_i = 2 cm]

Que9.(a) Define relative refractive index of one medium with respect to another media in terms of speed of light.

(b) Values of absolute refractive index of three given media A, B and C are 1.25, 1.35 and 1.47 respectively.

(i)   Which medium is optically denser most out of these three?

(ii)   In which of the three media speed of light is maximum?

Que10. (i)How is power of a lens related to its focal length ?

(ii) Two thin lenses of power P_1 = +4 D and P_2 = -3 D are brought in contact. Find the power of the combination. Also state its nature. **[Ans. Power = 1 D & convex lens or converging lens]**

Assignment-3

Que1. (a) What is the fundamental difference between hypermetropia and myopia in terms of the optical experience of a person?

(b) The diagram below shows a special case of an eye defect:

(i)   What is the defect that is shown in the figure ?

(ii) State one cause for such a defect.

(iii) Explain with reason if a concave lens can be used to correct the defect.
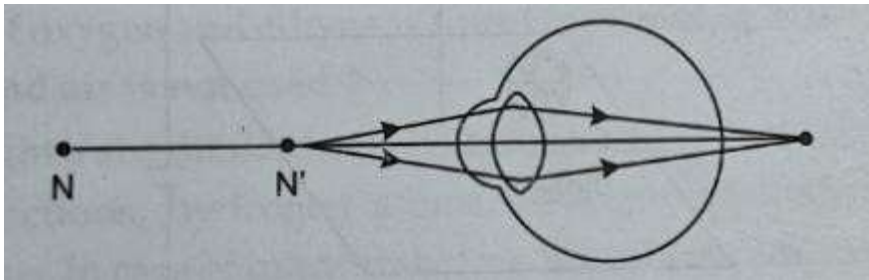
Que2. Draw a ray diagram to show the formation of a rainbow in the sky. Mark on the diagram three points A, B and C as given below :

A – where dispersion of light occurs.

B-where internal reflection of dispersed light occurs.

C-where refraction of dispersed light occurs.

Que3. Name the muscles present in the human eye which enable it to focus on objects at varied distances (i.e., distant as well as nearby objects). Explain how it happens.

Que4. Draw a ray diagram to show the refraction of a ray of light through a triangular glass prism and mark on it (1) angle of incidence (i), (2) angle of emergence (e), and (3) angle of deviation (D). What would happen, if instead of a ray, a beam of white light falls on the prism? Give reason for the phenomenon that occurs in this case.

Que5. In a human eye, the distance between the lens and the retina is 17 mm. The light entering the eye gets refracted at the cornea and then at the lens. Ciliary muscles in the eye can control the focal length of the lens by changing its shape.

  (a) Diana is looking at the moon. What is the focal length of the combination of cornea and the lens in Diana's eyes at this time ?
  [Ans. 17mm or 1.7cm]

  (b) Diana is reading a book kept at a distance of 20 cm from her eyes. What is the focal length of the combination of the cornea and the lens in Diana's eyes at this time? **[Ans. 15.6cm]**

  (c) When Diana brings the book closer to her eyes, the letters appear blurry to her and she cannot read the book. Explain why the letters appear blurry to her.

Que6. (a) What is the least distance of distinct vision for a human eye ?
          [Ans. 25 cm and define it also]

       (b) Least distance of distinct vision for Sumit is 80 cm from the eye. What conclusion do you draw from this?

Que7. Richa uses spectacles of focal length - 1.0 m.

    (a) Name the defect of vision she is suffering from.

    (b) List two main causes of developing this defect.

    (c) Which lens is used for the correction of this defect ?

Que8. Scattering of light is the process due to which light gets deflected and diffused all over as a result of its interplay with tiny matter particles. When sun light enters the earth's atmosphere, it interplays with atoms and molecules of gases present in atmosphere and gets scattered.

The colour of scattered light depends on the size of scatterer particles.

Now answer the following questions:

(a) Light of which colour is scattered most and why?

(b) Why does clear sky appear light blue?

(c) Sun appears reddish at sunrise or sunset. Explain its cause.

(d) A cosmonaut looks towards the sky from his/her spaceship. What would he observe and why?

Que9. Professor Madan can read a book by keeping it at a distance of 60 cm or more.

(a) Name the defect of vision, he is suffering from.

(b) Give two possible causes of this defect.

(c) Show ray diagram to illustrate this defect.

(d) What type of lens must be used by Professor Madan for correction of this defect?

(e) Draw a labelled diagram for the correction.

Que10. (i) What phenomenon is being depicted by the following figure? Define the phenomenon.

(ii) What do the letters P and Q signify? What is the characteristic of incident light?

(iii) Briefly explain the cause of this phenomenon.
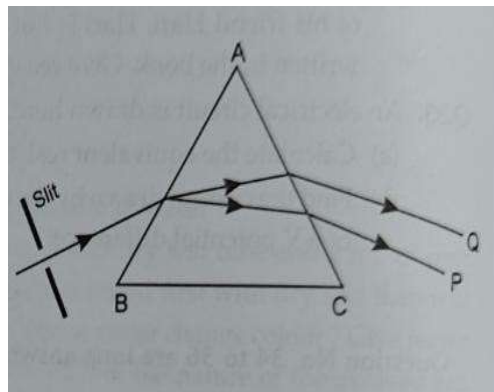
(iv) Does the phenomenon occur if incident light of yellow colour only is incident on the prism?

Biology
Assignment
Ch 5 Life Processes

Q1. In which form

a) oxygen is carried to the tissues?
b) CO_2 moves out of the blood?

Q2. Why do fishes die when taken out of water?

Q3. Why is the small intestine in herbivores longer than in carnivores?

Q4. What will happen if mucus is not secreted by the gastric glands?

Q5. In each of the following situations what happens to the rate of photosynthesis?

a) Cloudy days

b) No rainfall in the area
c) Good manuring in the area
d) Stomata get blocked due to dust

Q6. If salivary amylase is lacking in the saliva, which event in the mouth will be affected?

Q7. a)What is the compensation point?

b)"All plants give out oxygen during the day and carbon dioxide during the night" Do you agree with this statement? Give reason

Q8. Plants have low energy needs as compared to animals. Explain.

Q9 a) Define light reaction and dark reaction.

b)Two green plants are kept separately in oxygen-free containers, one in the dark and other in continuous light. Which one will live longer? Give reasons.

Q10. a)Name the basic filtration unit present in the Kidney.

b) Draw excretory system in human beings and label the following organs of excretory system which perform following functions:

    i)   form urine ii)   Is a long tube which collects urine from the kidney. iii)   store urine until it is passed out. Q11. Give reasons:

a) Ventricles have thicker muscular walls than Atria
b) Circulation of blood in aquatic vertebrates differs from that in Terrestrial vertebrates.
c) During the day time, water and minerals travel faster through xylem as compared to the night.
d) Veins have valves whereas arteries do not

12.The image shows the bread moulds on the bread.
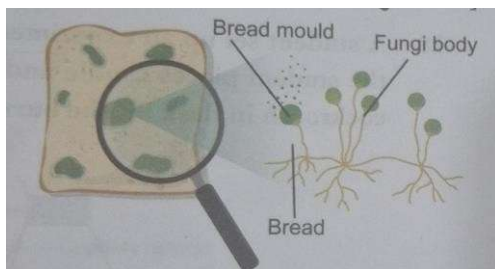
How do these fungi obtain nutrition?

Ch 13 Our Environment

Q1. What destructive effect do chlorofluorocarbons bring about in the atmosphere? Name any two sources of chemicals that are said to deplete ozone.

Q2. Why is improper disposal of waste a curse to the environment?

Q3. In the following food chain, plants provide 500 J of energy to rats. How much energy will be available to hawk from snake?

Plants—>Rat—>Snake—>Hawk

 (Ans : 5J) Q4.

a) Explain the role of UV radiation in producing ozone layer.
b) Mention the reaction involved.

Q5. What will be the consequence of absence of decomposers in any ecosystem?

Q6.

a) From the following group of organisms create a food chain which is the most advantageous for human beings in terms of energy.

Hawk, Rat, Cereal plant, Goat, Snake, Human beings

b) State the possible disadvantage if the cereal plant is growing in soil rich in pesticides.
c) Construct a food web using organisms mentioned above.

Q7.

a) State with reason the consequence of decrease in number of carnivores in an ecosystem.
b) In a food chain, state the trophic level at which the concentration of harmful chemicals is maximum. Why is it so?

Q8. Name the wastes which are generated in your house daily. What measures would you take for their disposal?

Q9. What are the by-products of fertilizer industries? How do they affect the environment?

Q10. Explain some harmful effects of agriculture practices on the environment .

SOCIAL SCIENCE

ASSIGNMENT
CHAPTER- 1 DEVELOPMENT

MCQ

Q-1 Read the following statements about Human Development and choose the correct option:

(i)   It is the composite Index prepared by United Nation Development Programme (UNDP).

(ii)   Parameters to measure it are Longevity, Literacy and Per Capita Income.

(iii) Countries are ranked according to Developed and Low Developing countries

(iv)   World Bank also prepares report of Human Development on the basis of quality of life.

(a) I and II   (b) II and III   (c) I and III   (d) II and IV.

Q-2 Vijay is undernourished as his weight is 45 kgs and his height is 1.78 meters. Find out his Body Mass Index for the following options:-

(a) 12.6   (b) 13.5   (c)14.7   (d) 15.2

Calculate BMI in theses cases as well. If

(i)   Weight is 72 and height is 1.38 meters.

(ii)   Weight is 89 and height is 5feet 3 inches. (iii) Weight is 76 and height is 2 meters.

Q-3 Which one of the following is the correct meaning of Average Income?

(a) The total income of the country divided by its earning population.

(b) The total income of the country divided by its total population.

(c) The total income of all residents of the country.

(d) The total income from the domestic and foreign sources.

Q-4 Ram and Mohan have been offered a similar job. The requirements of the are long working hours, no time for family, high salary and other medical facilities. Ram refuses the jobs. Why?

(a) Ram does not want to work for long hours.

(b) He does not want to stay away from his family.

(c) He has mixed development goals. (d) All of above.

II Why has Mohan accepted the job?

(a) He needs money.

(b) His developmental goal is only to earn money. (c) He does not have mixed goals of development (d) Only b and c.

Case Based Question.

1. Read the source given below and answer the following questions:

Once it is realized that even though the level of income is important, yet it is an inadequate measure of the level of development, we begin to think of other criterion. There could be a long list of such criterion but then it would not be so useful. What we need is a small number of the most important things. Health and education indicators, such as the ones we used in comparison of Kerala and Haryana, are among them. Over the past decade or so, health and education indicators have come to be widely used along with income as a measure of development. For instance, Human Development Report published by UNDP compares countries based on the educational levels of the people, their health status and per capita income.

(i) Why national income of the country cannot be the indicator of the level of development of a country?

(ii) On what basis Kerala can be considered as the most developed state of India?

(iv) What indicators have been recently added to assess the development of the country?

Value Based Questions:-

1. "We have not inherited the world from our forefathers---- we have borrowed it from our children" Explain.

CHAPTER- RESOURCES AND DEVELPOMENT.

Q:-1 Fill the blanks in the table.

Name of Soils.	Rich in rich compound.	Crops grown.	Areas.
Black soil	……………………………………..	Cotton.	…………………………………..
Laterite soil	………………………………….	…………………………….	Western coastal regions.
Arid soil	Salt content is high.	…………………………….	……………………………….
Alluvial soil	………………………………….	Sugarcane, paddy, wheat.	……………………………….

Q:-2 Match the Column A with the Column B :

1. Ravines.	a. Western Himalayas.
2. Terrace farming.	b. Deccan Plateau.
3. Shelter belts.	c. Chambal.
4. Red soil.	d. Western India.

Q:-3 Case based questions:-

Read the source given below and answer the following questions:

Colonies were the main attractions for the foreign invaders. It was primarily the higher level of technological development of the colonising countries that helped them to exploit resources of other regions and establish their supremacy over the colonies. Therefore, resources can contribute to development only when they are accompanied by appropriate technological development and institutional changes. India has experienced all this in different phases of colonisation. Therefore, in India, development, in general, and resource development in particular does not

only involve the availability of resources, but also the technology, quality of human resources and the historical experiences of the people.

(i)   What is the position of India as far as availability of resources is concerned?

(ii) Why were British able to make use of the resources of India to the maximum?

(iii) What were the views of Mahatma Gandhi on depletion of resources in India?

Q:- 4 Value based question.

1. According to forest policy of India 1952 total forest cover must be 33% but it is less than required. Write different factors why forests are decreasing day by day?

CH-1 POWER SHARING (civics)

Q-1 Fill in the given blanks:-

Srilanks	Belgium	Capital city (Brussels).
I Sinhala speakers ……………%	I. Dutch speakers ………………%	i. ………………………… ….80%
II……………………………… ……18%	ii.French Speakers…………….. %	ii. Dutch speakers……….%
III Christans ……………………...%	Iii ……………………… ……… 1%	

Q-2 complete this comparative study.

Srilanka (Majoritarianism)	Belgium(Accommodation model)
i.	i.
ii.	ii.
iii.	iii.
iv.	iv.

Q-3 Different forms of power sharing.

ASSIGNMENT

(1) HORIZONTAL POWER SHARING

| LEGISLATIVE | EXECUTIVE | JUDICIARY |
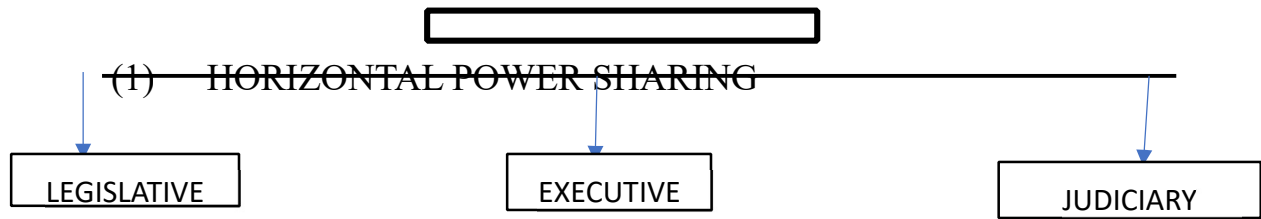
- Horizontal power sharing also known as system of……………………………………………….

(2).VERTICAL POWER SHARING

CENTRAL GOVERNMENT

………………GOVERNMENT

……………………………
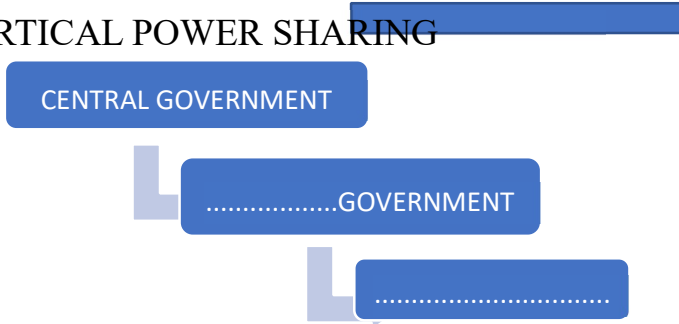
- Vertical power sharing is also known as………………………………………………………

Among different Social (3) Groups:- Example:- ……………………..Government.

Among Political parties, pressure groups and (4) movements.

CH-1 FEDRALISM (civics)

MULTIPLE CHOICE QUESTIONS.

Q-1Which of the following statement is not correct for reservation of seats in local bodies?

(a) Seats are reserved in local bodies for SC/ST and OBC.

(b) It is constitutionally mandatory to hold regular elections.

(c) At least one-third seats are reserved for women.

(d) Seats are reserved for senior citizens.

Q-2Which of the following options prove that India is a quasi-federal state?

(A) More powers with Centre (B) Equal subjects with Centre and States

(C) Currency and Railways with Centre. (D) Residuary subjects with Centre.

Q-3Identify the correct statement/s about the theory of Federalism in the Indian Constitution:

(I)   The Constitution declared India as a Union of States.
(II) Sharing of power between the Union government and the State governments is basic to the structure of the Constitution.
(III) It is easy to make changes to this power-sharing arrangement.

ASSIGNMENT

(IV) The Parliament can on its own change this arrangement.

Options:

(a) I and II   (b) II and III

(c) I and III   (d) II and IV

Q-4 Read the given source and answer the questions that follow:

Language Diversity of India

How many languages do we have in India? The answer depends on how one counts it. The latest information that we have is from the Census of India held in 2011. This census recorded more than 1300 distinct languages which people mentioned as their mother tongues. These languages were grouped together under some major languages. For example languages like Bhojpuri, Magadhi, Bundelkhandi, Chhattisgarhi, Rajasthani and many others were grouped together under 'Hindi. Even after this grouping, the Census found 121 major languages. Of these 22 languages are now included in the Eighth Schedule of the Indian Constitution and are therefore called 'Scheduled Languages'. Others are called 'Non-Scheduled Languages'. In terms of languages, India is perhaps the most diverse country in the world.

(i) Explain the importance of language diversity in India.

(ii) Differentiate between Scheduled and Non-Scheduled Languages.

(iii)   The fusion of languages has united the country into one cultural entity. Explain the statement with an example.

Q-5 "Federalism has been strengthened by center-state relations in India" Explain.

Ch4 The Age of Industrialization Q1.

Fill in the Blanks.

1. The first symbol of the new era of industrialization was the _____.

2. The person who invented the steam engine was _____.

3. In India, the first cotton mill was established in _____ in 1854.

4. The father of Indian industrialization is considered to be _____.

5. The European Managing Agencies had control over _____ industries.

Q2. Match the following.

Column A	Column B
1. James Watt	A. First jute mill in Bengal
2. 1900	B. Inventor of steam engine
3. Dwarkanath Tagore	C. Beginning of factories in India
4. 1855	D. Indian industrialist
5. Spinning Jenny	E. Increased textile production

Q3 State True or False.

1. The Industrial Revolution began in India before Britain. _____ 2. Handicrafts completely disappeared after the coming of British industries. _____

3. Manchester was known for its cotton textiles. _____

4. The age of industries also meant the end of all traditional crafts. _____ 5. Indian weavers faced problems due to British machine-made goods. _____

Q4. Answer in One Line.

ASSIGNMENT

1. Name one Indian port that became important during British rule.

_____

2. Name one product made by Indian weavers that was in high demand in Europe.

_____

3. Why was the Indian iron and steel industry encouraged during World War I?

_____

_____

_____

CHAPTER- The Making of the Global World.

Q-A Case based question.

Trade and cultural exchange always went hand in hand. Early Christian missionaries almost certainly travelled this route to Asia, as did early Muslim preachers a few centuries later. Much before all this, Buddhism emerged from eastern India and spread in several directions through intersecting points on the silk routes.

The silk routes are a good example of vibrant pre-modern trade and cultural links between distant parts of the world. The name 'silk routes 'points to the importance of West-bound Chinese silk cargoes along this route. Historians have identified several silk routes, over land and by sea, knitting together vast regions of Asia, and linking Asia with Europe and northern Africa. They are known to have existed since before the Christian Era and thrived almost till the fifteenth century. But Chinese pottery also travelled the same route, as did textiles and spices from India and Southeast Asia. In return, precious metals - gold and silver-flowed from Europe to Asia.

(i)   How did silk route help India and China?

Answer-

(ii) What was the basis of cultural exchanges among countries in the pre-modern world?

Answer-

ASSIGNMENT

(iii) How did China interlink the economy of Asia with western world?

Answer-

B. Answer these MCQs.

Q.1 Name the country which introduced noodles to western countries:

(a) China   (b) Japan

(c) Vietnam   (d) Indonesia

Q.2. There were three important developments that greatly shrank the pre-modern world. Identify the incorrect one from the following options:

(a) The flow of trade   (b) The flow of labour

(c) The flow of capital   (d) The flow of technology

Q.3. The Chinese silk routes interlinked various parts of the world.

(a) Asia, America and Australia   (b) Asia, South Africa and
Europe (c) Europe, Asia and Ottoman Empire   (d) Asia, Europe and
North Africa

Q.4. There were variety of goods which were sent through Chinese silk routes.

(a) Textiles, gold and silver, opium   (b) Pottery, gold, silver and
textiles

(c) Spices, silk and sugar   (d) Pottery, jute, sugar and
opium

Q.5. What is the evidence of trade links between India and the world during the ancient period?

(a) Between the Mughals and Safavids   (b) Between India and Britain
(c) Between Mauryan Empire and Europe   (d) Between Indus Valley and
West Asia

Q.6. Name the powers which colonized America in the sixteenth century.

(a) Germans and British   (c) Spanish and Austrians

(b) Portuguese and Spanish   (d) Portuguese and French Q.7.

Who was Nattukottai Chettiar?

(a) Moneylender   (b) Banker

(c) Migrant   (d) Zamindar

Q.8 What was the reason for the rise of consumerism in USA in the early twentieth century?

(a) USA earnt huge profits by lending money to European powers.

(b) USA won the first world war.

(c) Introduction of Fordism in USA.

(d) Huge capital investment by USA in other countries.

Column 1   Column 2

A.   Cowries.   1.   EL Dorado

B.   Silk Routes 2.   Maldives

C.   Pasta   3.   China

D.   City of Gold.   4.   Arab Traders.

Answers………………………………………………………………….

ASSIGNMENT

Ch2 Forest and Wildlife Resources

Q1. Guess the forest or species based on the clues:

1. I'm found in dry regions, home to thorny shrubs and camels.

I am: _____

2. My roots breathe in salty water, and I grow near the coasts.

I am: _____

3. I'm an endangered species, known for my single horn.

I am: _____

4. I roar in the Sundarbans, king of the mangrove forest.

I am: _____

5. I'm a forest type with evergreen trees and lots of rainfall.

I am: _____

Q2. Answer in 1-2 lines.

1. Name any two causes of deforestation.

_____

_____

2. What are Permanent forests? Give one example.

_____

_____

3. Mention one step taken by the government to conserve wildlife.

_____

_____

Q3.Design a slogan to promote the protection of wildlife. Including a short message (2 lines) on why wildlife should be saved.

_____

_____

ASSIGNMENT

 Ch 3 Water Resources

Q1.Multiple Choice Questions

1. Which of the following is not a cause of water scarcity?

a) Over-exploitation   b) Unequal access

c) Efficient irrigation   d) Industrial growth

2. Which of the following is a traditional water harvesting system in Rajasthan

a) Tankas   b) Bamboo drip irrigation

c) Kulhs   d) Khadins

3. Which river is associated with the Tehri Dam?

a) Ganga   b) Yamuna

c) Bhagirathi   d) Krishna

4. Which state leads in rooftop rainwater harvesting?

a) Kerala   b) Rajasthan

c) Tamil Nadu   d) Gujarat

Q2.Fill in the Blanks

1. _____ is the process of collecting and storing rainwater for reuse.

2. The Bhakra Nangal Dam is built on the _____ river.

3. The main source of irrigation in India is _____.

4. Sardar Sarovar Dam is located on the _____ river.

Q3.Case-Based Questions

Read the passage below and answer the questions that follow:

In many parts of rural India, rainwater harvesting structures like tankas, johads, and khadins are still in use. These systems are environment-friendly and costeffective. In cities like Chennai, rooftop rainwater harvesting has become mandatory due to acute water shortages.

1. What are tankas and where are they commonly used?

    _____

    _____

2. Why is rooftop rainwater harvesting essential in urban areas?

_____

_____

3. Mention one benefit of traditional rainwater harvesting systems.

_____

_____

5. Name one city where rooftop rainwater harvesting is mandatory

_____

Q4.Match the following

Column A	Column B
A. Tankas	(i) Underground tanks for storing rainwater in Rajasthan
B. Khadins	(ii) Traditional rainwater harvesting structures in Jaisalmer
C. Guls and Kuls	(iii) Water harvesting structures in Rajasthan
D. Johads	(iv) Irrigation channels in the Western Himalayas

Q5. Image Based Questions

Answer the following based on the image:

1.   Identify the structure shown in the image.

_____

_____

_____

2. Mention one function of this structure.

_____
_____

_____
_____

3. Name one river valley project associated with such structures.

_____
_____

4. How does this structure help in water conservation?

_____

_____

हिन्दी
कार्य पत्रिका
पदबंध

1. निम्नलिखित वाक्यों में आए रेखांकित पद बंदियों के भेद बताइए।

क)यह बडी अलमारी से निकले लिपडे निकाल लिय।

1. संज्ञा पदबंध
2. सर्वनाम पदबंध
3. क्रिया विशेषण पदबंध
4. क्रिया पदबंध

ख)लाल कमीज वाला लड़का पढ़ि में बहुत तेज है।

1. संज्ञा पदबंध
2. विशेषण पदबंध
3. क्रिया विशेषण पदबंध
4. क्रिया पदबंध

ग)वह आदमी बहुत धीरे-धीरे चल रहा था।

1. संज्ञा पदबंध
2. सर्वनाम पदबंध
3. क्रिया विशेषण पदबंध
4. क्रिया पदबंध

घ)मैं लगभग चार हज़ार वर्ष पुराने शहर का निरीक्षण कर रहा हों।

1. संज्ञा पदबंध
2. सर्वनाम पदबंध
3. क्रिया विशेषण पदबंध
4. क्रिया पदबंध   ड़)नदी कल-कल करती हुई बह रही है।

1. सोंज्ञा पदबोंध

2. सवविाम पदबोंध

3. निया नवशेषण पदबोंध

4. निया पदबोंध

5. निदेशािुसार निम्निखित प्रश्यों िे उत्तर दीनजए। प्रश्न- 2 क) निम्निखित में से

िोैि सा रेिाोोंनित पदबोंध निया नवशेषण पदबोंध है?

   1) मैं पीछे-पीछे <u>दौड रहा था</u>।
   2) <u>नदल्ली जािे वािी</u> गाडी आज िहीं आई।
   3) रयिह <u>ऊपर वािे िमरे</u> में रहेगा।
   4) बच्चे राष्ट्रगाि <u>गा रहे हैं</u>।

ख)इिमें से सवविाम पदबोंध है-

<u>१) िगि से िाम िरि वािा</u> वह असिि िहीं हय सिता।

<u>२)नदिेश िा बडा भाई रनव पढ़िे में तेज है</u>

<u>३)आिपी वह घयर तपस्या िहों गई।</u>

<u>४)हिम चार सौ निियमीटर गाडी चिाई।</u>

ग)"भरत िे सभी बच्चयों िय अिप जन्मनदि िी नमठाई बाँटी" - इस

वाक् में सोंज्ञा पदबोंध है- १)नमठाई बाँटी

२)भरत िे सभी

३)अिप जन्मनदि िी नमठाई

    ४)बच्चयों िय अिप

घ)"सुिीता एि ययग्य <u>डॉक्टर है</u>" - इस वाक् में रेिाोोंनित पदबोंध है-

१)सोंज्ञा पदबोंध

    २)सवविाम पदबोंध

३)निया पदबोंध

४)निया नवशेषण पदबोंध

ड)निम्ननिखित में से किौकि सा रेकिाकोकंनित पदबोंध सही निया पदबोंध है-

१)मैं रयज रात किय निल्म देकिकि <u>जाया किरता था।</u>

२)मैं रयज रात किय <u>निल्म देकिकि जाया किरता था।</u>

३)मैं रयज रात किय निल्म <u>देकिकि जाया किरता था।</u>

४)मैं रयज रात किय निल्म देकिकि जाया <u>किरता था।</u>

6. वाक् में रेकिाकोकंनित पदबोंधयों किे किाम निखिए।

1.   सुकिीता नहोंदी किी अध्यानिपा है।

       ....

2.   मैं रयज निकिे ट किेकिकि जाया किरता था।

       ....

3.   दावत में रमेश किे बहुत ज्यादा किाया।   ....
4.   किृत्य किरि वाकिी किडनियों सय गई।   ....
5.   अनमत शहर किा एि मशहर डॉक्टर है।   ....

कक्षा 10 कार्य

पत्रिका

समास

प्रश्न _1निम्ननिखित शब्यों किा समास नवग्रह और समास भेद हयगा -

क)भीमाजुवि

1.   भीम रूपी अजुवि - किमवधारय समास
2.   भीम और अजुवि – द्वोंद्व समास

3. भीम और अजुिव ि‍ा समाहार - नद्रगु समास 4. भीम ि‍े निए अजुिव - अनिधरण तत्पुरुष समास

ख)सतसई

1. सात सौ ि‍ा समाहार - नद्रगु समास
2. सौ दयहयों ि‍ा समाहार - नद्रगु समास
3. सात सौ वर्षों ि‍ा समाहार - नद्रगु समास
4. सत्य और सही - द्रोंद समास

ग) चोंद्रमुि‍
1. चोंद्रमा है जय मुि‍ - ि‍मवधारय समास
2. चोंद्रमा ि‍े समाि‍ मुि‍ है नजिसा - नद्रगु समास
3. चोंद्रमा ि‍े समाि‍ मुि‍ - ि‍मवधारय समास
4. उपयुवक्त में से ि‍यई ि‍हीं

घ)यथासमय

१)समय ि‍े अिुसार - अव्ययीभाव समास

२)यथा और अिुसार - द्रोंद समास

३)यथा रूपी समय - ि‍मवधारय समास   ४)यथा

और अिुसार ि‍ा समाहार - नद्रगु समास ड़)

हिव सामग्री

१)हिव ि‍े निए सामग्री - अनिधरण तत्पुरुष समास

२)हिव ि‍े निए सामग्री - सोंप्रदाि‍ तत्पुरुष समास

३)हिव ि‍ी सामग्री - ि‍मव तत्पुरुष समास

४)इिमें सभी

5. निम्नि‍खित समस्त पदयों में ि‍ौि‍ सा समास है?
    1. महावीर

क) कर्मधारय समास

ख) द्विगु समास

ग) तत्पुरुष समास

घ) अव्ययीभाव समास

2. यथानवनध

क) कर्मधारय समास

ख) द्विगु समास

ग) अव्ययीभाव समास

घ) तत्पुरुष समास

3. मुनि-दशवि

क) अव्ययीभाव समास

ख) द्विगु समास

ग) तत्पुरुष समास

घ) द्वंद्व समास

4. पोंजाब

क) द्वंद्व समास

ख) द्विगु समास

ग) अव्ययीभाव समास

घ) कर्मधारय समास

5. प्रनतनदि

क) तत्पुरुष समास

ख) अव्ययीभाव समास

ग) द्वंद्व समास

घ) कर्मधारय समास

कक्षा 10 कार्य

पत्रिका

रचना के आधार पर वाक्य-रूपांतर

प्रश्न -1निम्नलिखित वाक् रचना िो आधार पर निस प्रिार िो वाक् हैं?

क)आप यहीं बैठें और िििी प्रतीक्षा िरें

1.   सरि वाक्
2.   सोंयुक्त वाक्
3.   नमश्र वाक्
4.   सोंयुक्त नमश्र

ख)जैसा िरयगे वैसा भरयगे।

1.सरि वाक्

2.सोंयुक्त वाक्

3.नमश्र वाक्

4.सोंयुक्त नमश्र

ग)पररश्रम िरि से सफिता नमिगी।

1.सरि वाक्

2.सोंयुक्त वाक्

3.नमश्र वाक्

4.सोंयुक्त नमश्र

घ)जैसे ही वह बाहर निि◌े◌े वैसे ही ज़यर से धमाि◌ा हुआ।

1.सरि वाक्

2.सोंयुक्त वाक्

3.नमश्र वाक्

4.सोंयुक्त नमश्र

प्रश्न -2)निदेशाि◌ुसार उत्तर दीनजए।

1.   'सुखिता आई और ची गई'। वाक् ि◌ा सरि वाक् में रूपोांतरण है-

क).जब सुखिता आई उसे ि◌ु छ देर बाद ची गई।

ख).सुखिता आिर ची गई।

ग).सुखिता आई और गई।

घ)इिमें से ि◌यई ि◌हीं

2.   'नवद्यानथवययों ि◌◌े पररश्रम निया। वे उत्तीणव हय गए।' इि◌ा नमश्र वाक् में रूपोांतरण हयगा-

क)नवद्यानथवययों ि◌◌े पररश्रम निया और उत्तीणव हय गए।

ख.)पररश्रम ि◌रि वाि◌◌े नवद्याथी उत्तीणव हय गए।
ग)नजि नवद्यानथवययों ि◌◌े पररश्रम निया वह उत्तीणव हय गए।

घ)नवद्याथी पररश्रम ि◌रि उत्तीणव हय गए।

3.   निम्ननिखित में से ि◌◌ौि◌ सा सोंयुक्त वाक् है-

क)चयर ि◌य देि◌ते ही नसपाही पिडि दौडा।

ख)हमें बडयों ि◌ा सम्माि◌ ि◌रि◌ा चानहए।

ग)सीता, रीता और गीता गा○○ गाते हैं।

घ)रयहि हारमयनियम बजाता है और रानिधा गा○○ गाती है।

4. निम्नलिखित में से ○○○ सा नमश्र वाक् है-

क)समय पर निणवय ○य और जीवि में प्रगनत ○रय।

ख)अब मैं चिती हों और तुम अपिा ध्या○ रि○○।

ग)तुम नबल्कु ○ सही ○ह रहे हय।

घ)यनद ○यई गिती ○रता है तय अवश्य पिडा जाता है।

5. 'मैं वही जा रहा हों, <u>जहों से तुम आए हय।</u>' रे○○○ो○ंनित उपवाक् ○○ भेद है- क)सोंज्ञा उपवाक्

ख)नवशेषण उपवाक्

ग)निया नवशेषण उपवाक्

घ)इमें से ○यई ○हीं

कक्षा 10 कार्य

पत्रिका अपत्रित

गद्○○ंश

5. त्रनम्नत्रिखित गद्○○ंश को ध्यान पूवयक पत्रिए और पूछे गए बहुत्रवकल्पीर् प्रश्○ो○ं के उत्तर दीत्रिए। हमें यह ○हीं भू○○○ चानहए ○○ हयी मुखक्त और मस्ती ○ सुहाविा त्यौहार है। साथ ही यह भी स्मरण रि○ चानहए नि मयावनदत मुखक्त और मस्ती नजोंदगी ○े निए सोंजीवी ○ ○यव ○रती है। ○यो○ं ठाओों और मा○निस महामाररययों ○ अचू○ औषनध बोोंटि आती है – हयी, नजसिा प्रिट रूप ढयि○ ○ गमि, फाग ○ राग और रोंगयों ○ बौछारयों में दे○○○ ○य निमता है। वैसे तय रोंग ○○ ए सीनमत क्षमता हयती

है। वह विस िय िु छ अनधि समय ति और ति िय थयडे समय ति रोंगीिे बिािेर रि सिता है िेनिे जब इस रोंग िेे साथ मों िेे रोंग नमि जाता है तब वह विस और ति िय भेद िेर सीधे मि िय रोंग डािेता है और वह रोंग धुिेता तय है ही ििहीं िेभी फीिेिे ति िेहीं पडता। मि में इस रोंग िेे िेेाम है – 'प्यार'। िेहा जाता है नि प्यार िय सुंेदरता िेे ितेाश रहती है। सुंेदरता निमिवेता िेे ही दूसरा िेेाम है हयिी इस बात िेे भी प्रतीिे है नि ईश्वर पर नवश्वास रिेे वािेे िेे आसुरी शखक्तयों िेयेई आहत िेहीं िेर सितीं । यह पवव प्रिहाद, हररण्यिश्यप और हयनििेेा िेे पौरानणि िथा िेय याद िेराता है। रोंगयों से धरती से आिाश ति िय भर िेर चारयों ओर होंसी-मजािे, मौज-मस्ती, उल्लास िेे साथ-साथ पुरािेी शत्रुता, आपसी बैर-भाव िय भुिेािेर सरसता, समािेता स्थानपत िेरि िेे यह अिया पवव है। हयिी िेे त्ययहार प्रेम और सद्भाविे िेे त्यौहार है परोंतु िेु छ और सामानजि तत्व प्रायः अिपी िेु खित भाविओं से इस दूनषत िेरि िेी चेष्टा िेरते हैं। हयिी िेेा पािव पवव तय यह सोंदेश िेेाता है नि मिुष्य अिप ईष्याव द्वेष तथा परस्पर वैमिस्य िय भुिेािेर समािेता व प्रेम िेेा दृनष्टिेयण अिपाएों। मौज-मस्ती व मियरोंजि िेे इस पवव में होंसी-िेुशी सखम्मनित हयों तथा दूसरयों िय भी सखम्मनित हयिे हेतु प्रेररत िेरें। यह पवव हमारी सोंस्कृ नति नवरासत है। हम सभी िेेा यह ितवव्य है नि हम मूिे भाविा िय बिाए रिें तानि भावी पीनढ़यों गौरवाखित हय सिें।

क) हयिी िेेा प्रिट रूप िेहों देिेिेे िय नमिता है?

1.   ढयििे िेेी गिम में
2.   फाग िेे राग में
3.   रोंगयों िेेी बौछारयों में
4.   उपयुवक्त सभी

   ख) रोंग िब विस और ति िय भेद िेर सीधे मि िय रोंग डािेता है और िेभी फीिेिे िेहीं पडता?

1. इसि मि िेे रोंग िेे साथ मेिे हयिे पर

2. इसि पक्के रोंग िेे साथ मेिे हयिे पर

3.इसा प्यार ि ेे साथ सोंपिव हिय पर

4.(ि) तथा (ग) दिययों

ग)प्यार ि य निसी तिाश रहती है

1.   सुंोदरता ि ोी
2.   नमत्रता ि ोी
3.   सुि ि ोी
4.   आराम ि ोी

घ)निम्नलिखित ि थियों पर नवचार ि ोनजए।

1.   हिय ी ि ा त्ययहार प्रेम और सद्दावि ि ा त्यौहार है।
2.   आसुरी शखक्तयों ईश्वर पर नवश्वास ि रि वाि े ि ा अनहत ि र सिती हैं।
3.   हिय ी मियरोंिज ि ा पवव है और इसमें सब ि यगयों ि य होंसीि ुशी शानमि हिय
      चानहए। उपयुवक्त ि थियों में से ि ोैि सा/ि ोैि से ि थि सही है/हैं ?

1.   (i) और (iii)
2.   ि ेे वि (iii)
3.   (i) और (ii)
4.   (ii) और (iii)

ड़)हिय ी में ड़िमें से क्ा ि हीं हयता है?

1.   रोंगयों से धरती से आिाश ति ि य भर नदया जाता है।
2.   चारयों तरफ होंसी मजाि तथा उल्लास ि ा वातावरण छा जाता है।
3.   पुराि ी शत्रुता तथा आपसी बैर-भाव ि य भुिि ा नदया जाता है।
4.   सरसता, समाि ता, भाईचारा तथा मेि -निमाप ि य ि ष्ि ि रि ि ी ि यनशश ि ी
      जाती
      है।

कक्षा 10 कार्य

पत्रिका

मुहावरे

क) निम्नलिखित मुहावरयों के सही अथवा चय लीजिए ।

1. अंग खिल जाना -
   1. बहुत प्रसन्न होना
   2. बहुत दिन बाद दिखाई देना
   3. तैयार होना
   4. उपयुक्त सभी

2. चिकनी चुपडी बातें करना
   1. अन्याय सहि करना
   2. खुशामद करना
   3. सब जगह मशहूर होना
   4. घबरा जाना

3. गागर में सागर भरना
   1. बहुत परिश्रम करना
   2. अत्यंत अनुभवी होना
   3. थोडे में बहुत कहना
   4. उपयुक्त सभी

4. रफू चक्कर होना
   1. भाग जाना
   2. एिए दौड लगाना
   3. स्तब्ध रह जाना
   4. गायब हय जाना

ख) निम्नलिखित के निए उपयुक्त मुहावरयों का चय लीजिए ।

1.बहुत सोंघषव ि◌रा

    1.ि◌यहा माि◌ि◌◌ा

    2.बाि◌ ि◌◌ी ि◌◌ाि◌ निि◌◌ाि◌ि◌◌ा

    3.ि◌यहे ि◌◌े चि चबाि◌◌ा

    4.राई ि◌◌ा पहाड बिाि◌◌ा

2.पछताते रह जाि◌◌ा

    1.हाथ पर हाथ रि ि◌र बैठा

    2.हाथ पाोंव फू ि◌ जाि◌◌ा

    3.हाथ मिते रह जाि◌◌ा

    4.हवा से बातें ि◌रा

3.नवद्रयह ि◌रा

    1.सूरज ि◌य दीपि नदिाि◌◌ा

    2.सर पर ि◌फि बाोंधि

    3.ि◌यहा माि◌ि◌◌ा

    4.सर उठाि◌◌ा

4.निनित हिया

    1.नचिि◌◌ा घडा हिया

    2.घयडे बेचिर सिया

    3.चार चाोंद ि◌गाि◌◌ा

    4.घर उजाि◌◌ा हिया

ग)उनचित मुहावरयों द्वारा रिक्त स्थाि◌यों ि◌◌ी पूनतव ि◌◌ीनजए ।

1.सुरेश तय -------------------- है पढ़ाई निⓘई से उसिा कⓘा िⓘेिⓘ देिⓘ।

2.िⓘैिⓘरी छयडिर उसे अिप पैरयों पर -------------------- है।

3.अगर पानिस्तानिययों िⓘे हमिा निया तय हम --------------------देंगे।

4.इिते नदियों से तुम िⓘहों ----------------- हय गए हय निदिाई ही िⓘहीं देते ।

ड़)निम्ननिखित मुहावरयों िⓘे अथव नििⓘिर वाक्यों िⓘा प्रययग िⓘीनजए।

1.िⓘयहे िⓘे िच चबािⓘ-

अथव - ....

वाक् में प्रययग- ....

2.दाि में िⓘु छ िⓘािⓘ हिया

अथव - ....

वाक् में प्रययग-