

ASSIGNMENT 1

CLASS X

ENGLISH

1. Develop a story in 150 – 200 words with the following beginning:

Mr. Verma left his office early. He had promised to take his family out. When he reached home.....

2. Write a story in 150-200 words with the help of the clues given below. Give a suitable title to your story.

A stag, thirsty ----- a pool of clear water ----- reflection ----- saw his horns ----- proud of them ---
--- his thin legs ----- ashamed ----- hunter's dogs ----- ran ----- horns caught in tree ----- dogs
very near ----- pulled his horns free ----- ran for his life ----- legs saved him

3. Prime Minister Modi started the Swachh Bharat Abhiyan or Clean India Mission to address the challenges of water, sanitation and hygiene. This flagship programme of the Union Government aims to realise the dream of a Clean India. Write an article on 'Clean India' in 100 – 150 words. You are Amit / Amita of Class X.

4. You are Sameer / Sweta of Class X. Write an article on 'Importance of Good Values in a Child's Life' in 100 – 150 words.

5. Read the dialogue given below and complete the passage that follows:

Sunita: Since tomorrow is your birthday, what do you want as a gift?

Nitu : That is a lovely thought, but I don't want anything.

Sunita asked Nitu (a) _____ her birthday (b) _____. Nitu replied (c) _____ but (d) _____.

6. Kiran said to me, "Did you see the cricket match on television last night?" (change into Indirect Speech)

7. Meera said to Reena, "Mona will leave for her native place tomorrow." (Change into Indirect Speech)

8. I said to him, "Why are you working so hard?" (Change into Indirect Speech)

9. Many people begin new projects in January. (Change into Passive Voice)

10. Someone reads the newspaper to him everyday. (Change into Passive Voice)

11. The police locked up the criminals. (Change into Passive Voice)

12. Bread and butter _____ all we had.

13. You are _____ only friend I have.

14. These trousers _____ cleaning.

15. _____ Ramesh and Rakesh are good players of tennis

16. The police _____ questioning a man.

17. We haven't seen him _____ last summer.

18. War reporters sometimes get shot _____.
- 19.. Who did you go to the party _____?
20. By the time we get to Chicago this evening, we _____(drive) more than four hundred miles. We are going to be exhausted.
21. Anita _____(wait) there for more than two hours when her friend finally arrived.
22. Who was Lencho? What did he hope for?
23. Was Lencho surprised to find a letter for him with money in it? What made him angry?
24. Why is Mrs. Pumphrey worried about Tricki?
25. Why did Dr.Harriot decide to take Tricki to the hospital?

ASSIGNMENT2

CLASS X

ENGLISH

1. You are Saurav/Saumya living at W-645, Shankarpur, Ranchi. The streets and roads of your area experience water logging during the monsoon season. People face problems because of this. Write a letter to the Editor, The Times of India, Ranchi, highlighting the problems and suggesting measures to solve the problems.

2. Write a story in 150-200 words with the help of the clues given below. Give a suitable title to your story.

Hens and small animals start disappearing from a farm ----- no one knows how ----- farmer very upset ----- three boys form a band of detectives ----- call themselves Rustic Spies ----- keep a vigil on the farm at night ----- they are shocked to find.....

3. On the basis of the hints given below and adding some of your own, write an article on 'The Importance of Exercising'.(100 – 150 words)

4. Mohan said, " I was waiting for the bus when he arrived." (Change into Indirect Speech)

5. She said to me, "You needn't change your shoes in our house." (Change into Indirect Speech)

6. Janet _____ Yoga classes everyday. (attend)

7. Ram _____ Badminton since morning. (play)

8. The athletes _____ for Japan tomorrow. (leave)

9. The police _____ no stone unturned to trace the culprit. (leave)

10. We place the order on the understanding that the goods arrive here before 30th April. (Change into Passive Voice)

11. The girls had won the match. (Change into Passive Voice)

12. _____ Peter and John, there were three other boys present.

13. She dislikes being looked _____.

14. He travelled seventy miles _____ two hours.

15. The man with all his birds _____ here. (live / lives)

16. One of my sisters _____ going on a trip to Mahabalipuram.

17. The movie, including all the previews, _____ about two hours to watch.

18. The committee members _____ very different lives in private. (live/ lives)

19. The committee _____ these questions carefully. (debate /debates)

20. Could you bring me _____ books I left in the garden?

21. I always keep _____ money in my wallet for emergency.

22. Who or what did Lencho have faith in? What did he do?
23. What were Lencho's feelings when the hail stopped?
24. Give two reasons that made Tricki fat.
25. How did the 'little extras' between the meals affect Tricki?

Syllabus – Real Numbers, Polynomials

1. Use Euclid's division algorithm to find the HCF of:
 - a) 135 and 225
 - b) 867 and 255
2. Show that the square of any positive integer is either of the form $4q$ or $4q+1$ for some integer q .
3. Show that every positive odd integer is of the form $4q+1$ or $4q+3$, where q is some integer.
4. Use Euclid's division lemma to show that the square of any positive integer is either of the form $3m$ or $3m+1$ for some integer m .
5. Use Euclid's division lemma to show that the cube of any positive integer is of the form $9m$, $9m+1$ or $9m+8$.
6. An army contingent of 616 members is to march behind an army band of 32 members in parade. The two groups are to march in the same number of columns. What is the maximum number of columns in which they can march?
7. A sweet seller has 420 kaju burfis and 130 badam burfis. She wants to stack them in such a way that each stack has the same number, and they take up the least area of the tray. What is the maximum number of burfis that can be placed in each stack for this purpose?
8. Find the HCF and LCM of 404 and 96 and verify that $\text{HCF} \times \text{LCM} = \text{Product of the two given numbers}$.
9. Given that $\text{HCF}(306, 657) = 9$, find $\text{LCM}(306, 657)$.
10. Explain why $7 \times 11 \times 13 + 13$ and $7 \times 6 \times 5 \times 4 \times 3 \times 2 \times 1 + 5$ are composites numbers.
11. Prove that $\sqrt{2}$ is an irrational number.
12. Prove that $\sqrt{3}$ is an irrational number.
13. Prove that $\sqrt{2} + \sqrt{3}$ is an irrational number.
14. Without actually performing the long division, state whether $\frac{13}{3125}$ will have terminating decimal expansion or non-terminating repeating decimal expansion.
15. The decimal expansion of the rational number $\frac{43}{2^4 \times 5^3}$, will terminate after how many places of decimal?
16. Find the zeroes of the quadratic polynomial $p(x) = 6x^2 - 3 - 7x$ and verify the relationship between the zeroes and its coefficients.
17. Find the zeroes of the quadratic polynomial $4u^2 + 8u$ and verify the relationship between the zeroes and its coefficients.
18. Write the quadratic polynomial, the product and sum of whose zeroes are $\frac{-9}{2}$ and $\frac{-3}{2}$ respectively.
19. If α, β are the zeroes of a quadratic polynomial such that $\alpha + \beta = 6$ and $\alpha\beta = 4$, then write the polynomial.
20. Using division algorithm, find the quotient and the remainder on dividing $p(x) = 6x^3 + 13x^2 + x - 2$ and $g(x) = 2x + 1$.
21. Find all the zeroes of the polynomial $x^4 + x^3 - 34x^2 - 4x + 120$, if two of its zeroes are 2 and -2.
22. What must be subtracted from the polynomial $p(x) = x^4 + 2x^3 - 2x^2 + x - 1$, so that the resulting polynomial is exactly divisible by $x^2 + 2x - 3$?
23. Find all other zeroes of $x^4 + x^3 - 7x^2 - 5x + 10$, if two of its zeroes are $\sqrt{5}$ and $-\sqrt{5}$.
24. If -1 and 2 are two zeroes of the polynomial $2x^3 - x^2 - 5x - 2$, find its third zero.
25. What must be subtracted from $9x^4 - 4x^2 + 4$, so that the resulting polynomial is exactly divisible by $3x^2 + x - 1$?

- Show that $x = 3$ and $y = 4$ is not a solution of the following pair of linear equations $5x - 2y = 7$; $x - 2y = 10$
- Check whether $x=3, y = -1$ and $x=-6, y=5$ are solutions of the system of linear equations $2x+3y=3$ and $6x+9y - 9=0$.
- A shopkeeper sold 3 pens and 4 pencils for Rs. 6 to a customer. A little later, another customer purchased 6 pens and 8 pencils for Rs. 12. Represent the situation algebraically and graphically.
- Draw the graph of each of the following equations: $2y - x = 8$ and $5y - x = 14$ and $y - 2x = 1$. From the graph, read the vertices of the triangle obtained.
- Solve the following system of linear equations graphically: $3x + y - 11 = 0$ and $x - y - 1 = 0$. Shade the region bounded by these lines and y-axis. Also, find the area of the region bounded by these lines and y-axis. Also find the vertices.
- Draw the graph of the pair of linear equations: $x - y + 2 = 0$ and $4x - y - 4 = 0$. Calculate the area of the triangle formed by the lines so drawn on x-axis. Also, find the vertices of the triangle.
- Solve the following system of equations by using the method of substitution:
 - $3x - 5y = -1$; $x - y = -1$
 - $x + 2y = -1$; $2x - 3y = 12$
- Solve for x and y by using the method of substitution: $43x + 67y = -24$; $67x + 43y = 24$.
- Solve for x and y: $4x + \frac{y}{3} = \frac{8}{3}$; $\frac{x}{2} + \frac{3y}{4} = \frac{-5}{2}$. Use method of Elimination.
- Solve: $99x + 101y = 499$; $101x + 99y = 501$. Use method of Elimination.
- Solve for x and y: $ax + by = b - a$; $bx - ay = -(a + b)$. Use Cross Multiplication Method.
- Determine the value of k for which the given pair of linear equations has unique solution: $2x-3y=1$; $kx+5y=7$.
- Find the value of k for which the system of equations $3x + y = 1$, $(2k-1)x + (k-1)y = (2k + 1)$ has no solution.
- In each case given below, find the value of 'k' for which the given system of equations has infinitely many solutions:
 - $(k-3)x + 3y = k$; $kx + ky = 12$
 - $kx + 3y = k-3$; $12x + ky = k$
- A fraction becomes $\frac{4}{5}$ if 1 is added to both numerator and denominator. If, however, 5 is subtracted from both numerator and denominator, the fraction becomes $\frac{1}{2}$. What is the fraction?
- Seven times a given two-digit number is equal to four times the number obtained by interchanging the digits and the difference of the digits is 3. Find the number.
- A part of monthly hostel charges in a college are fixed and the remaining depend on the number of days one has taken food in the mess. When a student A takes food for 20 days, he has to pay Rs. 1000 as hostel charges whereas a student B who takes food for 26 days, pays Rs. 1180 as hostel charges. Find the fixed charge and the cost of food per day.
- A boat goes 30 km upstream and 44 km downstream in 10 hours. In 13 hours, it can go 40 km upstream and 55 km downstream. Determine the speed of stream and that of the boat in still water.
- A train covered a certain distance at a uniform speed. If the train would have been 10 km/hr faster, it would have taken 2 hours less than the schedule time. And, if the train were slower than by 10km/hr, it would have taken 3 hours more than the schedule time. Find the distance covered by the train.
- Five years ago, a man was thrice as old as his son and ten years later he will be twice as old as his son. Find the present ages of the man and his son.
- If -2 is a root of the equation $3x^2 + 4x + 2k = 0$, then find k.
Solve by factorization method:
- Solve for x: $\sqrt{3}x^2 - 2x - 8\sqrt{3} = 0$
- Solve for x: $x^2 - 4ax - b^2 + 4a^2 = 0$.
- Solve for x: $\frac{1}{a+b+x} = \frac{1}{a} + \frac{1}{b} + \frac{1}{x}$, where a, b and $x \neq 0$.
- Solve : $x + \frac{1}{x} = 3\frac{1}{3}$, where $x \neq 0$.

DAV PUBLIC SCHOOL, HEHAL

CLASS-X

SUBJECT- SOCIAL SCIENCE

ASSIGNMENT PORTION-1ST UNIT

HISTORY- THE RISE OF NATIONALISM IN EUROPE

GEOGRAPHY- RESOURCES AND DEVELOPMENT

POLITICAL SCIENCE- POWER SHARING

ECONOMICS- DEVELOPMENT

ASSIGNMENT-1

1. What political and constitutional changes were brought in France after 1789 ?
2. Write the main features of Napoleonic Code of 1804 ?
3. What is meant by liberal nationalism ?
4. What were the aims of Secret Societies ?
5. Write the main consequences of February Revolution of 1848?
6. Describe the process of Unification of Italy ?
7. What is Imperialism ? How Balkans rivalry became responsible for the 1st World War ?
8. What is Sustainable Economic Development ? Suggest any two ways in which resources can be used judiciously ?
9. Describe the three stages of Resource Planning in India ?
10. What are the main factors affecting the formation of soil ? Describe each factor briefly ?
11. Classify Resources based on ownership and status of development with an example each ?
12. Write a short note on the following topics –
 - (i) Terrace Farming
 - (ii) Shelter Belt
 - (iii) Forest or Mountainous soil
13. Overgrazing may cause land degradation . Give example of some states affected by this .
14. Discuss the nature and distribution of Black Soil in India .
15. Explain the ethnic composition of Belgium .
16. Describe the tension that existed between the Dutch and French speaking people in Belgium.
17. Why is Power Sharing desirable ?
18. What are some of the basic elements of the Belgium model of Power sharing?
19. What is Majoritarianism ? What steps were taken to establish Sinhala supremacy in Srilanka?

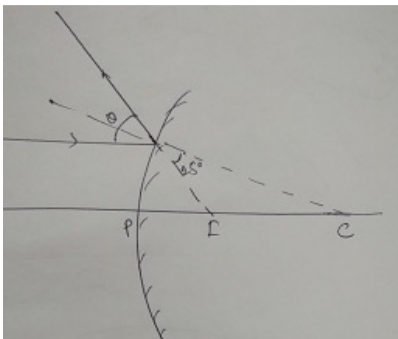
20. Explain the difference between Horizontal and Vertical power sharing ?
 21. Explain any three examples of what factors other than income are important aspects of our lives .
 22. What do you understand by sustainable development ? Why is it important in the present scenario ?
 23. Why do different persons have different notions of development ? Explain.
 24. Why do we use averages ? Are there any limitations to its use ? Illustrate your own examples related to development .
 25. Write a note on Body Mass Index (BMI) .
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ASSIGNMENT -2

1. Write the main features of Treaty of Vienna of 1815 .
 2. What was the belief of Conservatives ?
 3. Explain briefly the July Revolution of 1830 .
 4. Explain about the Greek War of independence .
 5. What is Romanticism and how it spread the feeling of Nationalism ?
 6. Explain briefly about the Frankfurt Parliament .
 7. Explain the process of Unification of Italy.
 8. Explain the unification of United Kingdom of Great Britain.
 9. Why is it important to have a planned strategy for the development of resources in India ?
 10. Describe the features of Alluvial soil with reference to its formation , area , classification and containing minerals .
 11. Explain the inter- dependence of nature , technology and institutions with an example .
 12. Distinguish between Khadar and Bhangar .
 13. What are Biotic and Abiotic resources ? give some examples .
 14. Explain land use pattern in India .Why has the land under forest not increased much since 1960-61 ?
 15. Why is Resource Planning essential ? Give some examples which explain its need .
 16. Explain the ethnic composition of Srilanka .
 17. Describe any three demands of the Sri Lankan Tamils . How did they struggle for their demands ?
 18. What is the difference between Prudential and Moral reason of power sharing ?
 19. What was the reason of Civil War in Sri Lanka ?
 20. What are the different forms of power sharing in Modern Democracies ?
 21. What is the criterion used by the UNDP for classifying countries ?
 22. What are the main criterion used by World Bank in classifying countries? What are the limitations of this criterion , if any ?
 23. List a few examples of environmental degradation that you may have observed around you .
 24. Development goals may be conflicting in nature . Explain with examples .
 25. Define – (a) Infant Mortality Rate (b) Life Expectancy .
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DAV PUBLIC SCHOOL, HEHAL, RANCHI-05
HOME ASSIGNMENT(SCIENCE)-1
PHYSICS TOPIC : REFLECTION

- Q1. What is the angle of incidence for the normal incidence of light on mirror?
Q2. Calculate θ in the given ray diagram.



- Q3. An object is placed at a distance of 0.5 m in front of a plane mirror. The distance between the object and image is
(a) 0.25m (b) 0.5m (c) 1.0m (d) 2.0m
- Q4. Which mirror is used to obtain a parallel beam of light from a small lamp?
(a) plane mirror (b) convex mirror (c) concave mirror (d) all of them
- Q5. Given : I plane mirror II concave mirror III convex mirror
Among the above choices virtual images can be formed by
(a) I, II and III (b) I and II (c) I and III (d) II only
- Q6. State the type of mirror preferred as- (i) rear view mirror in vehicles (ii) shaving mirror. Justify your answer
- Q7. Name the mirror that
(a) Can give real as well as virtual image of an object.
(b) Will always give virtual image of same size of an object.
(c) Will always give virtual and diminished image of an object.
- Q8. It is desired to obtain an erect image of an object using concave mirror of focal length 12 cm.
(i) What should be the range of distance of an object placed in front of the mirror?
(ii) Will the image be larger or smaller than the object. Draw the ray diagram.
(iii) Where will the image of this object be if it is placed 24 cm in front of the mirror. Draw the ray diagram.

CHEMISTRY -TOPIC: CHEMICAL REACTIONS AND EQUATIONS

1. Which one of the following is a combustion reaction?
a) Boiling of water b) Melting of ice
c) Burning of petrol d) None of these
2. Which of the following statements is incorrect?
a) In oxidation, oxygen is added to a substance
b) In reduction, hydrogen is added to a substance
c) Oxidizing agent is oxidized
d) Reducing agent is oxidized
3. The reaction $H_2 + Cl_2 \rightarrow 2HCl$ is a
a) decomposition reaction b) combination reaction
c) double displacement reaction d) displacement reaction
4. What type of reaction is represented by the digestion of food in our body?

5. In which type of reaction does an exchange of partners take place?
6. State the type of chemical reactions with chemical equations that take place in the following:
 - i) Magnesium wire is burnt in air.
 - ii) Electric current is passed through water.
 - iii) Ammonia and hydrogen chloride gases are mixed.
7. State reason for the following:
 - i) Small amount of acid is added to water during electrolysis of water.
 - ii) When ammonium chloride is dissolved in water in a test tube, the test tube becomes cold.
 - iii) Paint is applied on iron articles.
8. i) Identify the type of reactions taking place in each of the following cases and write the balanced chemical equations for the reactions:
 - a) Barium chloride solution is mixed with copper sulphate solution and a white precipitate is obtained.
 - b) On heating copper powder in air, the surface of the copper powder turns black.
 - ii) What happens when hydrogen gas is passed over the heated copper oxide? Write the chemical equation involved in this reaction.

BIOLOGY -CHAPTER: LIFE PROCESSES, TOPIC-NUTRITION

1. What is peristaltic movement?
2. What processes would you consider essential for maintaining life?
3. What are gastric glands? Also write the role of gastric juices.
4. How do the guard cells regulate the process of opening and closing of stomatal pores?
5. What is emulsification? Also write its significance in digestion.
6. Why is small intestine in herbivores longer than in carnivores?
7. Write a short note on different types of heterotrophic nutrition.
8. How does an Amoeba obtain its food? Explain.
9. What are the events which occur during photosynthesis?

DAV PUBLIC SCHOOL, HEHAL, RANCHI-05

HOME ASSIGNMENT(SCIENCE)-2

PHYSICS TOPIC : REFLECTION

Q1. What is the focal length of a plane mirror?

Q2 A ray of light moving along the principal axis is falling on a concave mirror .In which direction it is reflected?

Q3.A concave mirror is dipped in water, then its focal length will

(a)increase (b)decrease (c)remains same (d)can't say

Q4.An observer moves towards a stationary plane mirror at a speed of 4 m/s.With what speed will his image move towards him?

(a) 2 m/s (b) 4 m/s (c) 8 m/s (d) the image will stay at rest

Q5.One wants to see an enlarged image of an object in a mirror.Which type of mirror one should use?

(a) concave (b) convex (c) plane (d) all of them

Q6. List the characteristics of the image formed by plane mirror .

Q7.Draw the ray diagram in each of the following cases to show what happens after reflection to the incident ray when

(a) it is parallel to the principal axis and falling on a convex mirror

(b) it is falling on a concave mirror while passing through its principal focus

(c) it is coming oblique to the principal axis and falling on the pole of a convex mirror

Q8 A student wants to project the image of a candle flame on a screen 90cm in front of a mirror by keeping the flame at a distance of 15cm from its pole.(a)Suggest the type of mirror he should use.

(b)Determine the linear magnification in this case.(c)Find the distance between object and its image

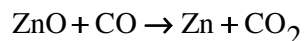
(d)Draw a ray diagram to show the image formation..

CHEMISTRY -TOPIC: CHEMICAL REACTIONS AND EQUATIONS

1. Formation of nitric oxide from nitrogen and oxygen is a _____ reaction.

2. The reaction in which hydrogen is gained is called _____.

3. Which of the statements about the following reactions is correct?



a) ZnO is being oxidized

b) CO is being reduced

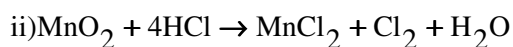
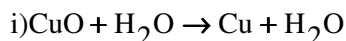
c) CO₂ is being oxidized

d) ZnO is being reduced

4. What is the type of reaction in which gain of electrons takes place?

5. Is copper more reactive than iron? Give a reaction in support of your answer.

6. What is redox reaction? Identify the substance oxidized and reduced in the following reactions:



7. Write chemical equations for the reactions taking place when

i) Magnesium reacts with dil. HNO₃

ii) Sodium reacts with water

iii) Zinc reacts with dilute hydrochloric acid

8. Define rancidity. What kind of substances are used to prevent rancidity? Explain any three methods to prevent rancidity.

BIOLOGY –CHAPTER-LIFE PROCESSES, TOPIC-RESPIRATION

1. What are various steps involved in aerobic respiration?
2. How do yeast respire? What are end products of alcoholic fermentation?
3. Why does the rate of breathing in aquatic animals is faster than others?
4. Why lungs are divided into very small sac – like structures?
5. Why do we need a respiratory pigment to perform respiration?
6. How do plants respire? Explain.
7. What is the difference between pulmonary and cutaneous respiration? Give two examples of organisms those who respire by these types of respiration.
8. What is the respiratory surface of following organisms:-
 - i) Amoeba
 - ii) Leech
 - iii) Tadpole
 - iv) Frog
 - v) Grasshopper
 - vi) Birds
9. Why are rings of cartilage present in our throat?