ENGLISH HOLIDAY HOMEWORK (2018-19)

CLASS X

- Learn all the words and idioms done in the class and enhance your vocabulary.
- Solve any four CBSE sample papers (Reading, Writing and Grammar section only) in a separate notebook.
  Note: You can either write or paste the unseen passages.
- Revise the syllabus for the Pre-Midterm Exams.
- Watch the movie of the novel "The story of my life" in order to comprehend it properly.
  Following are the suggested movies to be seen during vacations:
- Blue Umbrella
- Baby Boss
- Marley and Me
- Eight Below

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ग्रीष्मावकाश गृहकार्य

कक्षा-दसवी

विषय-हिंदी

</div>

१) दैनिक समाचार पत्र पढकर उसमें से कोई ४ सूचना तथा विज्ञापन काट कर A-3 शीटपर चिपकाए।

२) पढ़ाए गए पाठों में प्रयुक्त हुए मुहावरों को A-3 शीट पर लिखें तथा वाक्य बनाये।

३) निम्नलिखित संकेतों के आधारपर स्वरचित कहानी या कविता लेखन कीजिए
   (A-3 शीट पर)
   क) तेज वर्षा में जब मैं अपने घर से निकला————-।
   ख) नहीं भूला वह दिन जब मैंने अनपढ़ राधा के सूने जीवन में ज्ञान
       की ज्योति जलाने का संकल्प किया- - - -।
   ग) गुरू पर आधारित - - -।

४) अपठित गद्याश अपठित काव्यांश(कोई पाँच) का अभ्यास कीजिए ।

५) पूर्व मध्यावधि परीक्षा हेतु निर्धारित पाठ्यक्रम की पुनरावृति कीजिए।
   १) बडे भाई साहब
   २) डायरी का एक पन्ना
   ३) मीरा के पद
   ४) शब्द,पद ,पदबंध में अन्तर
   ५) रचना के आधार पर वाक्य रूपातंरण
   ६)औपचारिक पत्र।

Holidays Homework

2018-2019

CLASS X

MATHS

1. Do the assignments of chapter 1, 2 & 3 in separate assignment register.

   Ch-1 Real numbers
   Ch-2 Polynomials
   Ch-3 Linear equations in two variables

2. Revise chapter 1, 2 & 3 for pre mid term.

MATHS ASSIGNMENTS

CLASS X

CH 1 (REAL NUMBERS)

Q1 . If d is the H.C.F of 45 and 27, find x,y satisfying **d= 27x+ 45y .**

Q2. The numbers **525 and 3000** are both divisible only by 3,5 15,25 and 75. What is the HCF (525,3000) ? Justify your answer.

Q3 . Show that **$n^2- n$** is divisible by 2 for every positive integer n.

Q4. A number is divisible by **11 and 91** . What is the sum of the digits of the smallest such number.

Q5. If $\sqrt{ab}$ is an irrational number , prove that $\sqrt{a}+\sqrt{b}$ is irrational.

Q6 . Prove that **$5-\frac{2}{7}\sqrt{3}$** is irrational number.

Q7 . Three set of physics , chemistry and mathematics books have to be stacked in such a way that all the books are stored topic –wise and height of each stack is the same. The number of physics books **is 260**, the number of chemistry books is **364** and the number of mathematics books is **416**. Assuming that the books are of same thickness, determine of stacks of physics, chemistry and mathematics books.

Q8. 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.

Q9. On a morning walk , three persons step off together and their steps measure **40cm, 42cm and 45cm** respectively. What is the minimum distance each should walk so that each can cover the same distance in complete steps. Also find the number of steps of each person.What are the benefits of morning walk.

Q10. Show that **9^n** can never end with digit 0, for any natural number n.

Q11. Show that any positive odd integer is of the form **8q+1 or 8q+3 or 8q+5 or 8q+7,** where q is some integer.

Q12. Prove that the product of three consecutive positive integer is divisible by **6**.

Q13. If the H.C.F of 210 and 55 is expressible in the form $210\times 5 + 55y$, then find y.

Q14. Write the denominator of $\frac{91}{1250}$ in the form of $2^m \times 5^n$, where m and n are non-negative integers. Also write its decimal expansion without actual division.

Q15. State fundamental theorem of arithmetic. Find the LCM and HCF of 312 and 27 and verify **LCM$\times$ HCF= product of the numbers.**

Q16. Using Euclid's division lemma, find the HCF of **56 and 72**. If d is the HCF of 56 and 72, expressed "d" as a linear combination of **56 and 72.**

Q17. Use Euclid's division lemma to show that the cube of any positive integer is either of the form **9m or 9m+1or 9m+8** for some integer m.

Q18. Two tankers contain **850** litres and **680** litres of petrol respectively. Find the maximum capacity of container which can measure the petrol of either tanker in exact number of items.

Q19. A mason has to fit the floor of a hall with square marble tiles of the largest possible size. The size of to the hall is **30** ft by **14** ft. What would be the size of the tiles required that has to be cut and how many such tiles are required.

Q20. Prove that **(2-3$\sqrt{5}$)** is irrational.

Q1. If one of the zero of a polynomial $(k-1)x^2+kx+1$ is 3, then find the value of k. How many zeroes can a quadratic polynomial have?

(k=$\frac{2}{3}$, two)

Q2 Find the zeroes of the following polynomials and verify the relationship between the zeroes and the coefficients

   i) $4x^2 + 5\sqrt{2}x - 3$

$$\left(\frac{-3}{\sqrt{2}} \text{ and } \frac{1}{2\sqrt{2}} \right)$$

   ii) $7y^2 - \frac{11}{3}y - \frac{2}{3}$

$$\left(\frac{2}{3} \text{ and } \frac{-1}{7} \right)$$

Q3 α,β are the zeroes of the quadratic polynomial $p(x)=x^2-(k-6)x+(2k+1)$. Find the values of k, if $\alpha+\beta=\alpha\beta$

(k=-7)

Q4 Find the condition that zeroes of ax^2+bx+c are reciprocal of each other.

(c=a)

Q5 i) Find the quadratic polynomial whose sum and product of zeroes are $\frac{-8}{3}$ and $\frac{4}{3}$ respectively also find the zeroes of the polynomials.

(-2 and $\frac{-2}{3}$)

ii)Find the quadratic polynomial whose zeroes are 4 and -1.

$\left(x^2 - 3x - 4 \right)$

Q6 Find the cubic polynomial with sum, sum of product of its zeroes taken two at a time, and the product of its zeroes are 2, -7, -14 respectively.

$$\left(x^3 - 2x^2 - 7x + 14\right)$$

Q7 If the zeroes of the polynomial $x^3 - 3x^2 + x + 1$ are a-b, a, a+b find a and b.
(a=1,b=2 and -2)

Q8 If (x+a) is a factor of two polynomials x²+px+q and x²+mx+n, then prove that $a = \dfrac{n-q}{m-p}$.

Q9 On dividing p(x)=5x⁴-4x³+3x²-2x+1 by g(x)=x²+2, if q(x)=ax²+bx+c, find a,b and c. **(a=5,b=-4,c=-7)**

Q10 Find all zeroes of the polynomial 2x⁴-9x³+5x²+3x-1 if two of its zeroes are (2+√3) and (2-√3).

$$\left[(2 + \sqrt{3}), (2 - \sqrt{3}), 1 \text{ and } \dfrac{-1}{2} \right]$$

Q11 Divide (6+19x+x²-6x³) by (2+5x-3x²) and verify the division algorithm.

Q12 If the polynomial P(x)= x⁴-3x²+5x+3 is divided by x²-2, the remainder is ax+b. What will be the quotient? Find also the values of a and b.
(a=5 and b=1)

Q13 If α and β are zeroes of polynomial 3x²+2x-6, then form a quadratic polynomial whose zeroes are 2α and 2β.
$$[f(x) = 3x^2 + 10x - 8]$$

Q14 If α and β are zeroes of polynomial 3x²+2x-6 ,then find the values of α³+β³ . $\left(\dfrac{-116}{27}\right)$

Q15 If the product of zeroes of the polynomial ax²-6x-6 is 4, find the value of a.
$\left(a=\dfrac{-3}{2}\right)$

Q16 If α and β are zeroes of polynomial x²-5x+K such thatα-β=1 . Find the value of K.   **(k=6)**

Q17 Riya's mother has given her money to buy some boxes from the market at the rate of $x^2 + 2x - 3$. The total amount of money given by her mother is represented by $4x^4 + 2x^3 - 2x^2 + x - 1$. Out of this money, Riya donated some amount to a child who was studying in the light of street lamp. Find how much amount of money she must have so that she is able to buy exact and maximum number of boxes from the market.

What can you inculcate in your life from above incidence of Riya's life?

Q18. On dividing x^4-x^3-3x^2+3x+2 by a polynomial g(x), the quotient and remainder were x^2-x-2 and 2x respectively. Find g(x).

Q19.What must be subtracted from $(8x^4 + 14x^3 - 2x^2 + 7x - 8)$ so that resulting polynomial is exactly divisible by g(x)= $(4x^2 + 3x - 2)$.

Q20. If three zeros of a polynomial $(x^4 - x^3 - 3x^2 + 3x)$ are 0, $\sqrt{3}$ and $-\sqrt{3}$, then find the fourth zero.

MATHS ASSIGNMENT

CLASS-X

PAIR OF LINEAR EQUATIONS IN TWO VARIABLES

Q-1 Solve the following system of linear equation graphically.

$x - y = 1$

$2x + y = 8$

Shade the area bounded by these two lines and y axis. Also determine its area.

Q-2 solve for x and y

$\dfrac{xy}{x+y} = \dfrac{6}{5}$

$\dfrac{xy}{y-x} = 6$

Where $x + y \neq 0$ and $y - x \neq 0$.

Q3 solve the following equation by using cross multiplication method

$\dfrac{x}{a} + \dfrac{y}{b} = 2$

$ax - by = a^2 - b^2$

Q-4 solves for x and y

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

$x + y = 2m$

Q-5 Determine the value of k so that the following linear equations have no solution.

$(3k + 1)x + 3y - 2 = 0$

$(k^2 + 1)x + (k - 2)y - 5 = 0$

Q-6 A and B each have certain number of oranges. A says to B," if you give me ten of your oranges, I will have twice the number of oranges left with you." Then B replies " if you give me ten of your oranges, I will have the same number of oranges as left with you." Find the number of oranges with A and B separately.

Q-7 The sum of two-digit number and the number formed by interchanging its digit is 110. If 10 is subtracted from the first number, then the new number is 4 more than 5times the sum of the digits in the first number. Find the first number.

Q-8 X takes 3hrs more than Y to walk 30km. But, if X doubles his pace, he is ahead of y by one and half hour.

Q-9 8 men and 12 boys can finish a piece of work in 10days while 6 men and 8 boys can finish it in 14days. Find the time taken by one man alone and that by one boy alone to finish the work.

Q-10 the ratio of incomes' of two persons is 9:7 and the ratio of their expenditure is 4:3. If each of them saves rs200 per month, find their monthly income.

Q-11 A boat covers 32km upstream and 36km downstream in 7hours. Also, it covers 40km upstream and 48km downstream in 9hours. Find the speed of the boat in still water and that of the stream.

Q-12 solve the system of linear equation graphically.

$x + 3y = 6$

$2x - 3y = 12$

Hence find the value of a if $4x + 3y = a.$

Q-13draw the graph of following equations on the same graph paper.

$2x + y = 2$

$2x + y = 6$

Find the coordinates of the vertices of the trapezium formed by these lines.

Also find the area of the trapezium so formed.

Q-15 for each of the following systems of equations determine the value of k for which the given system of equations has infinitely many solutions.

   i. $5x + 2y = k$, $10x + 4y = 3$

  ii. $(k - 3)x + 3y = k$, $k(x + y) = 12$

HOLIDAY HOMEWORK (2018-19)

CLASS X

LIFE PROCESSES

1. Name the site of photosynthesis.

2. What is osmoregulation?

3. Name the excretory unit of kidney.

4. What is neuron?

5. Name the term for transport of food from leave to other parts of the plant.

6. Which tissue transports soluble products of photosynthesis?

7. What is the role of saliva in digestion of food?

8. Draw the diagram of cross – section of a leaf and label the following in it:

a. Chloroplast

b. Guard cell

 c. Lower epidermis

 d. Upper epidermis

9. What do you mean by double circulation of blood?

10. Explain why Bile juice does not contain any digestive enzymes, yet it is essential for digestion.

11. How would non – secretion of hydrochloric acid in our stomach affect food digestion? Explain.

12. Differentiate between blood and lymph.

 13. What is the advantage of a four chambered heart in humans?

14. Give reasons for the following:

a. The walls of arteries are thicker than the walls of veins.

b. Arteries don't have valves but veins have.

c. The walls of the ventricles are thicker than the walls of the atrium.

d. The wall of the left ventricle is thicker than the wall of right ventricle.

15. How does nutrition take place in Amoeba?

16. Draw a diagram of cross section of human heart. Show the path of flow of blood with the help of arrows.

17. How water is transported upwards in plants?

18. Describe the structure of nephrons.

19. Write the difference between aerobic and anaerobic respiration?

20. a. Draw a diagram of human alimentary canal.

b. Label the following – oesophagus, liver, gall bladder, and duodenum.

 c. What is the function of liver in human body?

21. What is double circulation? What is its advantage? Show with labelled diagram.
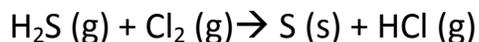
22. How is urine produced? How is it regulated?

CHEMICAL REACTION AND EQUATION

1. Write the name of the products formed by heating gypsum at 373K.Write one use of it.

2. On what chemical law, balancing of chemical equation is based?

3. Identify the compound oxidized in the following reaction:

 H_2S (g) + Cl_2 (g)→ S (s) + HCl (g)

4. Give an example of photochemical reaction.

5. Name the reaction which forms insoluble salts.

6. Name the product obtained and type of reaction given below:

Na_2SO_4 + $BaCl_2$→ _____ + _____

7. Give the chemical formula of rust.

8. Why potato chips manufacturers fill the packet of chips with nitrogen gas?

9. Why should curd and sour substances not be kept in brass and copper vessels?

10. What is the common name of the compound $CaOCl_2$?

11. Explain the following in terms of gain or loss of oxygen with one example:

a. Oxidation

 b. Reduction

 12. A copper coin is kept in a solution of silver nitrate for some time, what will happen to the coin and the colour of the solution?

13. Why do we apply paint on iron articles?

14. What happens chemically when quicklime is added to water?

15. Classify the following reaction as combination, decomposition, displacement and double displacement reaction:-

a) $BaCl_2 + H_2SO_4 \rightarrow BaSO_4 + 2HCl$

b) $3CuSO_4 + 2Al \rightarrow Al_2(SO_4)_3 + 3Cu$

c) $ZnCO_3 \rightarrow ZnO + CO_2$

d) $C + O_2 \rightarrow CO_2$

16. What is a precipitation reaction? Give an example.

17. What is rancidity? Write the common methods to prevent it.

18. What is corrosion? State the conditions necessary for rusting of iron. How rusting is harmful?

19. Name the type of reactions in the following cases:

 a. Garbage producing foul smell

 b. Burning of natural gas.

 c. Carbon dioxide gas passed through lime water.

20. Blue crystals of copper sulphate on heating in a dry test tube become colourless. Give reasons.

21. Give an example, each for thermal decomposition and photochemical decomposition reactions. Write balanced equation for the same.

22. Why respiration is considered an exothermic reaction? Explain.

 23. Why photosynthesis is considered an endothermic reaction? Explain.

 24. Why is decomposition reactions called opposite of combination reactions? Write equations for these reactions.

25. What happens when electricity is passed through acidified water?

26. a. Why can not a chemical change be normally reversed?

b. Why is it always essential to balance a chemical equation?

c. What happens when CO_2 gas is passed through lime water and why does it disappear on passing excess CO_2?

d. Can rusting of iron take place in distilled water?

27. Write chemical equations for the following and balance them.

I. Zinc carbonate(s) →Zinc oxide+ Carbon dioxide

II. Potassium bromide (aq) + Barium iodide (aq)→ Potassium iodide + Barium bromide.

III. Nitrogen + Hydrogen → Ammonia

28. A shiny brown coloured element 'X' on heating in air becomes a black coloured compound. Name the element 'X'& black the coloured compound formed. Also write the equation.

SOCIAL SCIENCE (SESSION 2018-19)

HOLIDAY HOMEWORK

CLASS X

1. **Prepare Tabloid on Resource & Development**

> ➤ **Students will prepare Tabloid on different Indian Resources.**
> ➤ **Tabloid contains proper headings, articles and pictures related to different resources and their conservation methods.**

2. Prepare an atlas of different maps (political and physical map of India).Mark below   mentioned places on map.

1. **Type of soil**
2. **Water Resources (Salal, Bhakra Nangal, Tehri, Rana Pratap Sagar, Sardar Sarovar, Tungabhadra, Hirakud & Nagarjuna)**
3. **Agriculture**
- **Major areas of rice, wheat,**
- **Largest states of sugarcane, tea, jute, coffee & rubber**

3. Read newspaper daily

4. Prepare for Pre-mid term exam

Holiday Homework

Physics

2018-2019

Class X

1. Draw all the ray diagram for

   Concave mirror
   Convex mirror
   Concave lens
   Convex lens
   On a separate A-4 size sheet

2. Practice numerical related to mirror and lens formula.

3. Prepare chapter Light for pre mid-term exams.

Holiday Homework

Session: 2018 – 2019

Subject: Computer

Mark: 5

Class: X

Create a PPT on following topics and submit the printouts:

	Roll No
1. Smart Class	1 – 20
2. Digital India	21 – 40
3. Computer Games	41 – 60

Note: Minimum number of slides – 5

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