HOLIDAY HOMEWORK

CLASS -TEN

SCIENCE

1 .Do both the monthly test papers (set 1 and set 2)in your homework notebook.

2. Make working model/model/chart of any one organ system of lesson 6-Life processes.

3.Complete practical's done in Practical notebook.

4. Revise lesson 1 and lesson 6.

5. Make a project file on "Sources of Energy" (10 pages-paste pictures also)

CLASS NINE

1.Make a model/chart of three states of matter/plant cell/animal cell/prokaryotic cell.

2. Complete all practical's done in the Practical notebook.

3.Revise lesson1 and lesson 5 . Class test on lesson 5 after the holidays.

4. In your science homework notebook draw labelled diagrams of: (a) plant cell (b)animal cell (c)prokaryotic cell (d) apparatus of sublimation

5 . Make a project file on "Improvement in food resources" (10 pages-paste pictures also)

CLASS SEVEN

1. Paste pictures of the following in your science homework notebook and write a paragraph on each: (a) Insectivorous plants (b)Saprotrophs (plants) (c) Parasites (plants) (d)Lichens

2. Draw labelled diagrams in your science homework notebook of: (a) Types of teeth in humans (b) Human digestive system

3. Revise lesson 1 and lesson 2 for a class test after the holidays.

English

A Reading: 2 unseen passages
B Writing: write one example for each:
Article writing
Letter to editor
Story writing
Order placement letter
Enquiry letter
Complaint letter
C Grammar:write two examples for each
Editing
Omission
Gap filling
Reported speech
Passive voice
Jumbled sentences 10
D Novel: 1.write summary of the first five chapters of the novel
"The story of my life"
        2 write character sketch for the following:
Hellen Keller
Arthur H Keller
Miss Anne Sullivan
Revise the syllabus done till date

SUMJECT-MATHEMATICS

REAL NUMBERS

LEVEL 1

1. The decimal expansion of $\dfrac{147}{120}$ will terminate after how many places of decimals.

2. If HCF (105,120) = 15, then find LCM of (105,120)

3. Write 21975 as a product of its prime factors

4. The prime factorization of natural number n is $2^3 \times 3^2 \times 5^2 \times 7$. Find the number of consecutive zeroes in 'n'.

5. Will $\dfrac{64}{455}$ have non-terminating repeating decimal expansion? Why?

LEVEL-II

1. Prove that $\dfrac{2\sqrt{3}}{5}$ is irrational.

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

3. Explain why $7 \times 11 \times 13 \times 17 + 17$ is a composite number.

4. Prove that in any three consecutive positive integers one and only one is divisible by 3.

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LEVEL-III

1. Prove that $n^2 - n$ is divisible by 2 for any positive integer n.

2. If d is the HCF of 45 and 27, find x & y satisfying $d = 27x + 45y$.

3. A book seller purchased 117 books out of which 45 books are of mathematics and the remaining 72 books are of Physics. Each book has same size. Mathematics and Physics books are to be packed in separate bundles and each bundle must contain same number of books. Find the least number of bundles which can be made for these 117 books.

4. Find the HCF of 117 and 65 and express it as a linear combination of 117 & 65.

5. Find the largest number that will divide 445, 572 and 699 leaving remainder 4,5& 6 respectively.

6. $n^2 - 1$ is divisible by 8, if n is an odd positive integer. Prove it.

SELF EVALUATION TEST

1. Express 234 as the product of its prime factors.

2. The LCM and HCF of two numbers are 180 and 6 respectively. If one of the numbers is 30, find the other number.

3. Find the greatest number of 6 digits exactly divisible by 24, 15, and 36.

4. Prove that $\sqrt{3}$ is an ir-rational number.

5. Prove that $\sqrt{3} + \sqrt{5}$ is an ir-rational number.

6. Insert a rational and irrational number between a and b. How many rational numbers and irrational numbers can be inserted between a and b?

POLINOMIALS

LEVEL-I

1. If x=1 is zero of a polynomial $f(x) = x^3 + x^2 + 4x + k$. Write the value of k.

2. For what value of k,-4 is a zero of the poly $.x^2 - x - (2k+2)$?

3. Verify whether 3 and 2 are the zeros of the poly. (x-2) (x-3)?

4. Find the zeros of the polynomial $f(x) = 4x^2 + 8x$

5. Find a quadratic polynomial each with the given zeros as sum and the product of its zeros respectively

   (a) $\frac{1}{4}$ -1   (b) $\sqrt{2}$, 1/3

LEVEL – 2

1. Using division algorithm, find the quotient and the remainder on dividing f(x) by g(x),

2. Where $f(x) = 6x^3 + 13x^2 + x - 2$ and $g(x) = 2x+1$

3. If α, β are the zeros of $2y^2 + 7y + 5$ write the value of $\alpha + \beta + \alpha\beta$

4. Find the zeros of a quadratic polynomial $5x^2 - 4 - 8x$ and verify the relationship between the zeros and the coefficients of the polinomial.

5. If α, β are the zeros of the pol $f(x) = x^2 - px + q$, find the value of

   (a) $\alpha^2 + \beta^2$ (b) $\dfrac{1}{\alpha} + \dfrac{1}{\beta}$

6. On dividing $x^3 + 2x^2 - 5x - 6$ by a polynomial $g(x)$ the quotient and remainder were $x+1$ and $-4x - 4$ respectively. Find the polynomial $g(x)$

7. If $(x+a)$ is a factor of $2x^2 + 2ax + 5x + 10$. Find a.

LEVEL-III

1. Find all the zeros of $2x^4 - 9x^3 + 5x^2 + 3x - 1$, if two of its zeros are $2 + \sqrt{3}$ & $2 - \sqrt{3}$

2. If α and β are the zeros of the polynomial $f(x) = 3x^2 - 4x + 1$. Find the quadratic polynomial whose zeroes are $\dfrac{\alpha^2}{\beta}$ and $\dfrac{\beta^2}{\alpha}$

3. If sum of squares of zeros of a quadratic polynomial $f(x) = x^2 - 8x + k$ is 40, find the value of k.

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

5. Find the value of a and b so that $x^4 + x^3 + 8x^2 + ax + b$ is divisible by $x^2 + 1$

SELF EVALUATION QUESTIONS

1. If the product of the zeros of the polynomial $ax^2 - 6x - 6$ is 4, find the value of a.

2. If α, β are the zeros of a polynomial, such that $\alpha + \beta = 6$ and $\alpha\beta = 4$ then write the polynomial.

3. Check whether $g(x)$ is a factor of $p(x)$ by dividing $p(x)$ by $g(x)$.

4. If α, β are the zeros of quadratic polynomial $p(x) = x^2 - x - 4$,

Find the value of $\dfrac{1}{\alpha} + \dfrac{1}{\beta} - \alpha\beta$

5. If -1 is one of the zeros of the polynomial $f(x)=3x^3 - 5x^2 - 11x - 3$. find the other two zeroes.

6. Obtain all zeros of the polynomial $f(x)=2x4+x3 - 14x2 - 19x - 6$, if two of its zeros are -2 and -1.

7. If one zero of the polynomial $(a2+9)x2+13x+6a$ is reciprocal of the other. Find the value of a.

8.

LINEAR EQUATION IN TWO VARIABLE

LEVEL 1

1. Ten students of class 10th took part in took parts in mathematics quiz. If the number of girls is 4 more than the number of boys. Repersent this situation algebrically and graphically.

 2. Solve graphically the system of equations

3                                       $x + 2y = 1$

                                        $x - 2y = -7$

3.   On comparing the ratios a1/a2 , b1/b2 , c1/c2 . Fine out the following pair of linear equations areconsistent or not.

9. $3x - y = 3$

10. $2x + y = 5$

11. **4**. Solve by sabtitution method

12. $x - 2y = 4$

13. $x - y = 3$

14. **5.** Solve the pair of liner equations by elimination method

15. $3x + 2y = 12$

16. $5x - 2y = 4$

17.   **LEVEL 2**

18. **1**. Solve graphically that pair of linear equations has no solution

19. $2x + 3y = 10$

20. $4x + 6y = 12$

6

21. **2**. Find the value of K for which pair of linear equations has infinitely many solutions

22. $$5x + 2y = K$$

23. $$10x + 4y = 3$$

24. **3**. The sum of a two digit number and the number obtained by reversing the order of the digits is 165. If the digits differ by 3. Find the number.

4. In triangle ABC, $\angle A = x^0, \angle B = 3x^0, \angle C = y^0$. If $3y^0 - 5x^0 = 300$. Prove that   .52
                        triangle ABC is a right angled triangle.

Solve the pair of linear equations

$$5x + 3y = 5xy$$

$$2x + 4y = 3xy$$

26. **LEVEL --3**

1. Solve graphically pair of linear equations

$$4x - 3y + 4 = 0$$

$$4x + 3y - 20 = 0$$

27. Find the area bounded by these lines and x-axis

2. Solve by cross multiplicatication method

$$a^2/x - b^2/y = 0$$

$$a^2b/x + b^2a/y = a+b, \qquad x,y \text{ not} = o$$

3. X takes 3 hours more than Y to walk 30 km. But if X doubles his pace he is ahead of Y by 3/2 hours . Find their speed of walking.

4. A person invested some amount at the rate of 12% simple intrest and some other amount at 10% simple intrest. He received yearly intrest of Rs130 . But if he had interchange the amount invested he would have received Rs 4 more as intrest . How much amount did he invest at different rates.

5. A boat cover 32 km upstream and 36 downstream in 7 hours. Also it covers 40 km upstream and 48 km downstream in 9 hours . Fine the speed of boat in still water and speed of stream.

SELF EVALUATION

28. **1**. Solve the pair of linear equations by subtitution method :

29. $x + y = a+b$

30. $ax + by = a2+b2$

31. **2**. Find the value of K for which pair of linear equations has infinitely many solutions

32. $(K - 1)x + 3y =7$

33. $(K +1) x +6y = 5K - 1$

34. **3.** Sum of two numbers is 35 & difference is 13 . Find the numbers.

35. **4.** Draw the graph for following equations :

36. $2x - y - 2 = o,$ $4x +3y - 24 =o ,$ $y +4 = 0$

37. Obtained the vertices of the triangle so formed .

38. **5**. Solve the pair of linear equations by cross multiplication method :

39. $ax + by = a - b ,$ $bx - ay = a+b$

40. **6**. A & B are friends & their age differ by 2 years . A's father D is twice as old as A . B is twice as old as his sister C. The ages of D & C differ by 40 years . Find the ages of A& B .

41. 7. The income of X& Y are in the ratio 8:7 & their expenditure are in the ratio 19:16 . If each saves Rs 1250 find their incoms .

42. **8.** Places A & B are 100 Km apart on a highway . One car starts from A & another from B at the same time . If the cars travel in same direction at different speeds they meet in 5 hours . If they travel towards each other they meet in 1 hour . What are the speed of two cars .

.**COMPLETE THREE ACTIVITIES IN ACTIVITY NOTE BOOK,RELATED TO CHAPTER-1,2 AND 3**

ART AND CRAFT

TYPOGRAPHY DESIGN – 02

   SIZE A3 /HALF CHART PAPER EACH

   ANY CRAFT – 02

SUB -SCIENCE

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<u>ग्रीष्मअवकाशगृहकार्यमई –जून२०१८</u>

<u>कक्षा – दसवींहिन्दी</u>

१.आपनेकुछऐसेचरित्रोंकेबारेमेंपढ़ायासुनाहोगाजिन्होंनेअपनेवाक्चातुर्यकेआधारपरलोकप्रियताप्राप्तकी,जैसे – तेनालीरामन,बीरबल,मुल्लानसीरुद्दीनआदि.इनचरित्रोंकेकुछरोचककिस्सेसंकलितकरो.

२. सूरदासकेभ्रमरगीतकेकोईपांचपदोंकासंकलनकरोतथापठितपदोंकेसाथउनकीतुलनाकरतेहुएएकलेखतैयारकरो.

३.फ़ादरकामिलबुल्केपरएकसंक्षिप्तआलेखलिखिए.

४.बालगोबिनभगतपाठमेंऋतुओंकेबड़ेहीसुंदरचित्रवर्णनहैं.आपभीबदलतेहुएमौसमोंपरएकचित्रअलबमतैयारकरो.

५. ग्राम्यसंस्कृतिशहरीजीवनकीभागदौडसेकिसतरहअलगहै, अपनेविचारलिखिए.

६. नेताजीसुभाषचन्द्रबोसपरएकनिबंधलिखिए.

७.रचनाकेआधारपरवाक्योंकेभेदलिखिएतथाप्रत्येकप्रकारकेकिन्हींदस – दसवाक्योंकारचनान्तरणकीजिए.