**GARIMA VIDYA VIHAR SR. SEC. SCHOOL**



SUMMER VACATION ASSIGNMENT (2023-24)



Grade : IX

Subject : English

**1)** Write a script on any social issue, It should be divided into IV Scenes. Name of the characters should be written on a different page. (In fair copy)

**2)** Read the Newspaper daily and Write only one news article under the given heading like National, International, Sports, Glamour, Business and express your views on it {In fair notebook}

**Or**

**3)** Write a self composed poetry on the given topics with minimum 4 stanzas {In Fair notebook}

**1)** Music

**2)** My School My Pride .

**fo"k; % fgUnh**

**1½** cpsanzhiky dh rjg fdu efgykvksa us vius liuksa dks iqjk djus ds fy, fdu&fdu pquksfr;ksa dk lkeuk dj {ks=&fo’ks"k esa viuh izfr"Bk cukbZ Qkby ds ek/;e ls izLrqr dhft,&

**tSls %&** dYiuk pkoyk] lkbuk usgoky] fdj.k csnh] bfUnjk xka/kh A

Subject : Maths

# SECTION-A

1. Write the degree of the given polynomials :

i) ( 2x + 4 )3

ii) ( t3 + 4 ) ( t3 + 9 )

1. Write the coefficient of x4 and x in 4x3 -5x4 +2x2 + 3.
2. Find the zeroes of f(z)=z2 - 2z.
3. Find the product using suitable identities: (4 +5x)(4-5x).
4. What is the value of k in polynomial x2 + 8x + k , if -1 is a zero of the polynomial?

# SECTION-B

1. Show that x + 1 and 2x -3 are factors o f 2x3 - 9x2 + x + 12.
2. If a2 + b2 + c2 = 20 and a + b + c = 0 , find ab + bc + ca.
3. If 9x2 + 25y2 = 181 and xy = -6, find the value o f 3x + 5y.
4. Evaluate using identities:

i) 7.83 x 7.83−1.17 x 1.17

6.66

ii) 293 - 113

10. Simplify: ( x2 + y2 - z2 )2 - ( x2 - y2 + z2 )2

# SECTION-C

1. Evaluate using identities:

i) (0.99)2

* 1. 117 x 83
  2. (a2b -b2a)2

1. Simplify : (𝑎2 −𝑏2 )3 + (𝑏2 −𝑐 2 )3 +(𝑐 2 −𝑎2 )3

(𝑎−𝑏)3 +(𝑏−𝑐)3 +(𝑐−𝑎)3

1. Let P and Q be the remainders when the polynomials x3 + 2x2 -5ax -7 and x3 + ax2 -12x + 6 are divided by x+1 and x-2 respectively. If 2P + Q = 6, find the value of a.

14. If f(x) = 5x2 – 4x + 5, find f(1) + f(-1) + f(0).

1. By remainder theorem, find the remainder when p(y) is divided by g(y)

i) p(y) = 4y3 – 12y2 + 5y – 4 and g(y) = 2y – 1

ii) p(y) = y3 – 4y2 - 2y + 6 and g(y) = 1 – 34y

# SECTION-D

1. Factories:

i) 2x2 x + ii) a3 – 0.216 iii) a3 – 2a + iv) x3- 12x (x – 4) -6

1. Factories each of the following polynomials:
2. x3 + 13x2 + 31x - 45 given that x + 9 is a factor.
3. 4x3 + 20x2 + 33x + 18 given that 2x + 3 is a factor.
4. Let R1 & R2 are the remainders when the polynomials f(x) = 4x3 + 3x2 – 12ax – 5 and g(x) = 2x3 + ax2 -6x -2 are divided by (x-1) and (x-2) respectively.

If 3R1 + R2 -28 = 0 , find the value of a.

1. If 2x + 3y = 12 and xy = 6, find the value of 8x3 + 27y3.

1 1 1

1. **i)** Simplify:

1+ 𝑥 𝑏−𝑎 + 𝑥 𝑐−𝑎 + 1+ 𝑥 𝑎−𝑏 + 𝑥 𝑐−𝑏 + 1+ 𝑥 𝑎−𝑐+ 𝑥 𝑏−𝑐

**ii)** Factorise:

a) 25 x2 + 16y2 + 4z2 – 40xy + 16yz – 20xz.

b) 2√2a3 + 8b3 – 27c3 + 18√2abc.

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Subject : Science

**1)** Prepare list (chart) of elements with symbols, atomic Number, Valency (Any 30 elements).

**2)** Prepare list Different compounds (Any 30) and their formula with the help of NCERT.

**3)** Prepare chart of different type of Acute/Chronic disease their causes, Symptoms, Prevention) (Any 5 disease)

**4)** Make a project on different types of research centre in India their Name, places, Research area,

& Achievement (1000 words)

Subject : So. Science

**1)** Make a project on disaster management (Natural and Manmade disaster)

🞜 Introduction

🞜 Causes

🞜 Examples related

🞜 How to manage disaster

🞜 Conclusion

Subject : IT

**Q.1)** How many Persons are involved in communication Process? Name them.

**Q.2)** Why is communication important?

**Q.3)** Give two example of stressful situation?

**Q.4)** “Self control is the ability to control your emotions and behaviour when you get angry”. Sometimes we lose self control, when someone makes us mad. Can you name a time when you lose self control?

**Q.5)** With the help of Diagram, show all elements of communication cycle?

**Note :- Answer the following questions in your computer Note Book.**

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SUMMER VACATION ASSIGNMENT (2023-24)



Grade : X

Subject : English

**COMPULSORY QUESTION :**

**Q.1)** Prepare 15 multiple choice questions form the stroy a) Long Walk to Freedom b) His First Flight (NCERT Book) (In fair copy)

**Q.2)** Design a poster on the topic : ‘How CNG Can be the best alternative to disel and Petrol. (In fair notebook)

**Or**

Create yourown diary in which you will Write daily about any one positive change Which you will bring in yourself like being organized or being punctual etc.

🞜 Small handmade diary which should be properly decorated.

**fo"k; % fgUnh**

**1½** ik¡p vkSipkfjd i= ds izk:i n’kkZrs gq, i= dh egRrk dks Li"V dhft,A Fkjekdksy dh lhV ;k pkVZ ds ek/;e ls &

**vFkok**

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Subject : Maths

1. Solve for x and y :

148x+231y = 527

231x+ 148y = 610

1. For what values of k will the system of equations have infinitely many solutions?

kx+3y = k-3 12x+ky= k

1. Solve for x and y:

2x+ 3y = 17

2x+2- 3y+1 = 5

1. Find the values of k for which the following system of equations is inconsistent.

(3k+1) x + 3y=2

(k2+1)x + (k-2)y-5= 0

1. It takes 12 hours to fill a swimming pool using two pipes. If the pipe of larger diameter is used for 4 hours and the pipe of smaller diameter for 9 hours, only half the pool can be filled. How long would it

take for each pipe to fill the pool separately?

1. The sum of a two digit number and the number formed by reversing its digits is 110. If 10 is subtracted from the number, the new number is 4 more than 5 times the sum of the digits in the original number. Find the number.
2. Susan invested certain amount of money in two schemes A and B, which offer interest at the rate of 8% per annum and 9% per annum, respectively. She received **Rs.**1860 as annual interest. However, had she interchanged the amount of investments in the two schemes, she would have received **Rs.** 20 more as annual interest. How much money did she invest in each scheme?
3. X takes 3 hours more than Y to walk 30 km. But, if X doubles his speed, he is ahead of Y by 1.5 hours. Find their speed of walking.
4. In a function if 10 guests are sent from room A to B, the number of guests in room A and B are same. If 20 guests are sent from B to A, the number of guests in A is double the number of guests in B. Find number of guests in both the rooms in the beginning.
5. A vessel contains a mixture of 24 litres milk and 6 litres water and second vessel contains a mixture of 15 litres milk and 10 litres water. How much mixture of milk and water should be taken from the first and the second vessel separately and kept in a third vessel so that the third vessel may contain a mixture of 25 litres milk and 10 litres water.
6. A shopkeeper sells a shirt at 8% profit and a sweater at 10% discount, thereby, getting a sum 1008. If she had sold the shirt at 10% profit and the sweater at 8% discount, she would have got 1028. Find the cost price of the shirt and the list price (price before discount) of the sweater.
7. Solve graphically:

2x + y = 6

2x – y + 2 = 0

Find the ratio of the area of two triangles formed by the lines representing these equations with the x-axis and the lines with the line x=0.

1. Draw the graphs of the following equations: 2x+y=2; 2x+y=6.

Find the coordinates of the trapezium formed by these lines. Also find its area.

1. Draw the graphs of the equations: - x + 3y = 6 ; 2x – 3y = 12 and hence find a if 3x + 2y = 3+ a . Find the area of the triangle formed by these lines with Y-axis.
2. Show graphically that the pair of linear equations

2x – 2y -2 = 0

4x -4y -10 = 0 is inconsistent.

1. A and B are friends and their ages differ by 2 years. A’s father D is twice as old as A and B is twice as old as his sister C. The age of D and C differ by 40 years. Find the ages of A and B.
2. A boat covers 32 km upstream and 36km downstream in 7 hours. Also, it covers 40 km upstream and 48km downstream in 9 hours. Find the speed of the boat in still water and that of the stream.
3. A lab assistant has a solution of 50% acid and the other one having 25% acid. How much of each should be mixed to make 10 litres of 40% acid solution?
4. Vijay had some sweets. He divided them into two lots A and B. He sold the first lot at the rate of

2 for 3 sweets and the second lot at Rs. 1 per sweet and thus received a total of **Rs.** 400. Had he sold the first lot at the rate of **Rs.** 1 per sweet and the second lot at **Rs.** 4 for 5 sweets, his total collection would have been **Rs.** 460. Find the total number of sweets he had.

Subject : Science

**1)** Draw chart Neat & clean on following topics.

a) Electrolysis of Water.

b) Image formation by lens (Concave & Convex)

c) Food Chain (Aquatic , Terrestrial and Forest )

**2)** Prepare project on Ozone layer Depletion.

**i)** Ozone present in the atmosphere is very important for sustain of life on earth Justify.

**Or**

**ii)** Prepare project on Garbage Disposal (1000 words)

Subject : So. Science

**1)** Prepare a project or file on the following topics . (Any one )

\* Consumer awareness (Case Study)

\* Any social issue. (Dowry System, Girls birth rate, Girls education domestic violence etc. )

**2)** Sustainable development. (with example of city Indore)

Subject : IT

**Q.1)** You have to deliver a speech in the school morning assembly. List three principles that you will keep in mind to make your speech effective.

**Q.2)** Which type of sentence is used to ask questions?

**Q.3)** How can self regulation help to work Independently?

**Q.4)** List the relational activities which may help us in reducing stress?

**Q.5)** Draw communication cycle, showing conversation of Boss and Employee.

**Note :- Answer the following questions in your computer Note Book.**

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