

Dr VIRENDRA SWARUP EDUCATION CENTRE UNNAO
WINTER HOLIDAY HOMEWORK

Class – 8

Instructions:

1. All holiday homework to be done in the respective subjects note books.
2. Do your homework neatly and on your own.
3. Learn and revise all the work done in the class.
4. All the questions to be done in the same order as given.
5. Attempting all the questions of holiday homework is mandatory.
6. Child will be assessed for neat and presentable work.
7. Homework will be submitted as and when school reopens.
8. Take interest in all the homework given and complete it with enthusiasm.



शीतकालीन अवकाश गृह कार्य

कक्षा- 8

▣ विचारात्मक लेख

आपके मन के मनोविकारों को आप किस प्रकार दूर कर सकते हैं कुछ ऐसे मनोविकारों को स्पष्ट कीजिए जिन्हें आप जानबूझकर कर जाते हैं और बाद में पछताते हैं ।

▣ डायरी लेखन-

शीतकालीन अवकाश में आपने किन स्थानों का भ्रमण किया किन्हीं तीन दिनों का वर्णन कीजिए



1. Do you think the goal of education should be development of morals & values or simply acquiring knowledge of various subjects? Write your views in about 150 words.

2. On an outline map of India, locate the following textile industry centres.

Mumbai, Ahmedabad, Chennai, Coimbatore.

3. On an outline map of the world, mark and label the following.

I. A densely populated region in Asia.

II. A sparsely populated region in Europe.

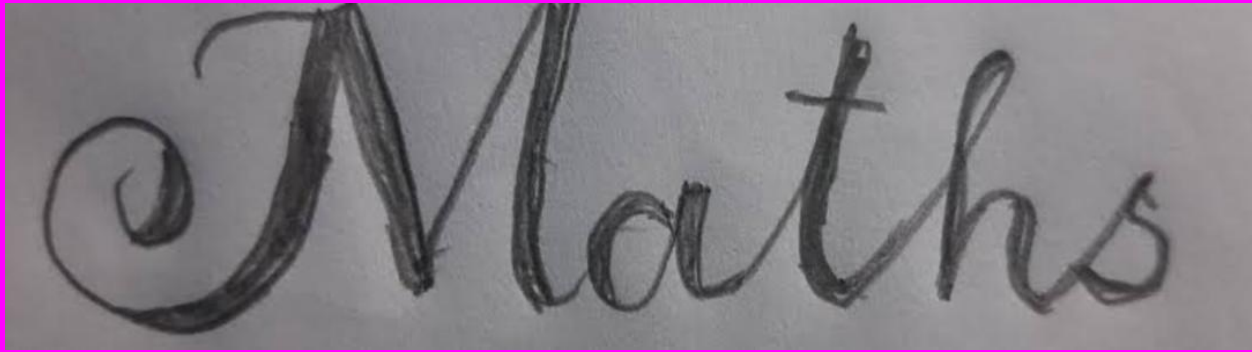


Computer

Make a chart in your Computer notebook of all the keywords that are used in Python.

A.i

Make a chart in your AI notebook of the latest companies that are adopting AI model with their logos.



Mathematics

1. Creative questions

The taxi charges in a city consist of a fixed charge together with the charge for the distance covered. For a distance of 10 km, the charge paid is rupees 105 and for a journey of 15 km, the charge paid is rupees 155

(i) Find the fixed charges ?

(ii) Find the charges per km ?

(iii) How much does a person have to pay for travelling a distance of 25 km ?

(iv) If you observe a park which is rectangular in shape with dimensions $2x^2 - 5xy + 3z^2$ and $4xy - x^2 - z^2$, then its perimeter is $2x^2 - 2xy + 4z^k$, find the value of k

(v) If the area of rectangular park is $x^2 + 7x + 12$ and its breadth is $(x + 3)$ then what will be the length in this case.

(vi) Write the expression for the length of wire required to fence rectangular park in part (v)

Q2. Face the challenge

(i) Write four algebraic expressions whose value is equal to 16, when $a = 4$

(ii) Multiply the binomials and confirm that each binomial is a factor of that product (by the long division method)

(a) $(a + 1) \times (a + 2) \times (a + 3)$ (b) $(2x - 4y) \times (3x - 2y) \times (5x + y)$

(iii) Factorise : $x^3 + x^2 - 9x - 9$

(iv) Factorise : $P^3 - 2P^2 - 5P + 6$

Q3. Real life connect

(i) Raghu, Ramya and Raja planned to contribute money for the welfare of physically challenged children of their previously studied school. During the planning of contribution, Ramya and Raja gave the following assurances.

- Ramya said she will give double the amount of money contributed by Raghu.
- Raja said he will give triple the amount of money contributed by Raghu. The total contribution done by Raghu , Ramya and Raja is rupees 5994. What is the amount contributed by each individual?

(ii) The area of a rectangular field is $(5x^2 - 3x - 2)$ square units. Find the perimeter of the field.

Q4. Critical thinking based questions

(i) From the sum of $19x^3 - 14y^3$ and $17y^2 - 14x^3$ subtract the sum of $4x^2y^2 - 9x^3$ and $16xy^2 - 4x^2y^2$

(ii) Area of a rectangle is given by $2x^4 + 7x^3 + 10x^2 + 42x - 12$. If its breadth is $x^2 + 6$, find its length

(iii) What should be subtracted from $4m^4 - 2m^3 - 6m^2 + m + 5$ so that it is divisible by $2m^2 + m - 2$?

(iv) Add the sum of $m^2n^2 + 2mn - 6$ and $10mn + 5$ to the product of $mn - m - 2$ and $mn - n + 6$



Topic 1 - To make liquid fertilizers at home

For example - Banana peels are rich in potassium, phosphorus, and calcium, which are great nutrients for plants. Here's a simple method to make liquid fertilizer using banana peels:

Materials Needed:

3–4 banana peels

1 liter of water

A blender or container with a lid

Steps:

- **Cut the Banana Peels**
- **Blend or Soak- Soaking Method:** Place the banana peels in a container, add water, and let it sit for 2–3 days. Stir occasionally.

- Dilute and Use

Similarly prepare other liquid fertilizers (Atleast 3 including the one given above).

You can use egg shells, tea leaves and onion peels or any other nutrient rich material available to you.

Topic 2 - To make your own mirror

Directions:- Take a glass strip of the shape of your choice clean it and put it on a white sheet of paper see yourself in the glass. Next put it on a black sheet of paper, again look into the glass. In which case you see yourself better and why? Based on your observations, make your own mirror and also use the old cardboard pieces to make the frame of your mirror.

Happy
Holidays