

NORTH-EX PUBLIC SCHOOL (Session 2020-21)
SUMMER HOLIDAYS HOMEWORK
Class - X
Subject – MATHS

1. The LCM and HCF of two numbers are 675 and 45 . If one of the number is 135 , then find the other number.
2. Find the HCF of 4032 and 262 using Euclid's division algorithm.
3. Write the prime factorization of 31250. What are its prime factors?
4. Find the quadratic polynomial whose sum and product of zeroes are $\sqrt{2}+1$ and $\frac{1}{\sqrt{2}+1}$.
5. If α and β are the zeroes of the polynomial $2x^2-4x+5$. Then find the value of $\alpha^2+\beta^2$. (Hint: Substitute the values of α and β in $(x+y)^2=x^2+y^2+2xy$)
6. On dividing the polynomial $4x^4-5x^3-39x^2-46x-2$ by the polynomial $g(x)$, the quotient is x^2-3x-5 and remainder is $-5x+8$. Find $g(x)$.
7. Divide and check whether the $g(x)$ is factor of $p(x)$ by division algorithm .
 - (a) $p(x)=x^4-3x^3+4x^2-8x+4$, $g(x) =x^2-x+2$
 - (b) $p(x) = 2x^4-3x^3-3x^2+6x-2$, $g(x)=x^2-2$
8. Write the definitions of different types of polynomials with examples on the basis of terms and degree.
9. Represent the Number System with the help of a Flow Chart and write examples also.
10. Form three-four statements of your surrounding situations which are related to linear equations of two variables and solve them also.

Note: Do practice of all the sums in the given worksheets.

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Class – X

Subject – science

Holiday homework

Physics

- Answers the following questions
 - State the ohms law.
 - Derive an expression for equivalent resistance for three resistors having value R_1 , R_2 and R_3 when connected in parallel combination.
 - A piece of wire of resistance R is cut into five equal parts. These parts are then connected in parallel. If the equivalent resistance of this combination is R^* , then find the ratio R/R^* .
- A cable of resistance of resistance 12Ω carries electric power from a generator producing 250 kW at 10,000V. Calculate:
 - The current in the cable,
 - The power lost in the cable during transmission, and
 - The potential difference across the ends of the cable.
- Answer the following questions:
 - Derive an expression for equivalent resistance of a combination of three resistors having resistances R_1 , R_2 and R_3 respectively when connected in series.
 - How can three resistances of 2, 3 and 6 ohms be connected so as to give a total resistance of 1 ohm? Justify your answer.
 - Calculate the numbers of electrons constituting one coulomb of charge.
- Describe an experimental setup for ohm's law.
- Prepare a working model on electricity.

Biology

- Answer the following questions:
 - What is the importance of emulsification of fats?
 - Describe double circulation in human beings. Why is it necessary? .
 - Why are cartilage ring present inside trachea?
 - What is the role of haemoglobin in transport?
- Describe the mechanism of transmission of nerve impulse.
- Diagrammatic questions:
 - Draw a diagram to show an alveolus and the surrounding blood capillaries.
 - Draw a diagram to show the network of blood capillaries in the villi of small intestine.
- Describe an experiment to demonstrate hydrotropism.
- Prepare a working model and a chart on the allotted topics. Model to be prepared should have a strong base and the chart related to the model should be made on white pastel sheet.
 - Human heart (Roll no. 1-7)
 - Human brain (Roll no. 8-15)
 - Respiratory system (Roll no. 16-22)
 - Alimentary canal (Roll no. 23-29)
 - Excretory system (Roll no. 30- 40)

NORTH-EX PUBLIC SCHOOL
(Senior Secondary, Affiliated To CBSE)
School Block, Jain Nagar, Sector-38, Rohini, Delhi – 81
CLASS –X
SOCIAL SCIENCE
HOLIDAY HOMEWORK

Read NCERT chapters before attempting questions

1. Discuss the ethnic composition of Belgium and Srilanka?
2. Discuss the Majoritarianism in Sri- Lanka?
3. Discuss the accommodation of Belgium?
4. **Name and explain various forms of power sharing in India?**
5. **Classify resources on the basis of : (a)origin (b) Exhaustibility (c) ownership (d)status of development**
6. Give 5 characteristics of Arid soil?
7. What were the major problems occurred by indiscriminate use of resources by human beings?

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Holiday Homework
Class X English

1. Watch English news daily in order to equip yourself with the information and facts to be used in as content in writing skills.
2. Smartphone is one of the most important means of communication today. But it has also become a nuisance for some. Write an article on the same in around 120 words. You are sneh/sneha of class x. You may take the help from the following inputs.

Important means of communication - connects a person socially - keeps people updated, has become a virtual companion - many disadvantages - disrupts peace of mind - a constant source of disturbance - excessive usage leads to mental health disorder - cause of deadly accidents on road - biggest distraction for students - should be used wisely - use to be minimize

3. Write a story on the basis of the cue given below.
It was Karl's first day at the new school. He was feeling very nervous. He stood in a corner and watched the students laughing and talking excitedly. When he saw four senior students advancing towards him, he...
4. Describe the following words in 300 words.
 - a. Apartheid (refer 'Nelson Mandela : A Long Walk To Freedom')
 - b. Imprisonment (refer 'A Tiger In The Zoo')
5. Maintain a dictionary by reading an English newspaper and watch your favorite show. Take note of the new words(atleast 5) that you see and hear and copy those words down in your notebook. Refer to the internet and learn what those words means.

NORTH-EX PUBLIC SCHOOL (Session 2020-21)

CLASS- X

SUBJECT- HINDI

HOLIDAYS HOMEWORK

प्रश्न 1. कबीर की साखियों से हमें क्या सीख मिलती है? अपने शब्दों में न-पष्ट कीजिए।

प्रश्न 2. मीरा के पदों की व्याख्या अपने शब्दों में कीजिए।

प्रश्न 3. समास के सभी भेदों के पाँच-पाँच उदाहरण विग्रह सहित लिखिए।

प्रश्न 4. निम्नलिखित विषयों पर लगभग 100 शब्दों में अनुच्छेद लिखिए -

(क) ग्लोबल वार्मिंग : मनुष्यता के लिए खतरा

(ख) कोरोना वायरस : एक महामारी

प्रश्न 5. निम्नलिखित विषयों पर लगभग 50 शब्दों में आकर्षक विज्ञापन संसार कीजिए -

(क) किसी प्रसिद्ध कंपनी की लक्जरी कार के लिए विज्ञापन बनाइए।

(ख) कोपिंग सेंटर के लिए विज्ञापन बनाइए।

प्रश्न 6. (क) आपके क्षेत्र में चारों ओर गंदगी फैली रहती है, इसकी शिवायत करते हुए लल आधिकारी को पत्र द्वारा सूचित कीजिए।

(ख) बहन की शादी के लिए अवकाश हेतु प्रधानाचार्य को पत्र लिखिए।

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CLASS - X

Subject: Computer Applications

Holiday Homework

NOTE: Revise all worksheets shared over website of Computer Application & answer the following questions in your school notebook.

Q1. What do you understand by uploading a file on the internet? Name software used for it.

Q2. Give the name of any two websites which are used to send E-mail.

Q3. Write short note on the following terms:

- a) Information retrieval
- b) E-banking
- c) Online shopping
- d) E-reservation
- e) E-groups

Q4. Rashmi wants to collect some information regarding the history of India.

- 1) What is the fastest and easiest way of doing this that saves her efforts as well?**
- 2) Write down the following steps in the correct order to show, how Rashmi could find some information.**

- (a) Type keywords.
- (b) Look at the list of websites starting at the top.
- (c) Load a search engine.
- (d) Click the search button.
- (e) Open the web browser.

Q5. Video conferencing is a face -to- face communication between two or more people which are not at the same place.

Suggest which equipment's that will be needed for the purpose.

Q6. How WWW is different from the Internet?

Q7. What do you understand by video conferencing? How is it useful during the current pandemic COVID 19?

Q8. Find the error(s) in the following code and underline those errors.

```
<HTML>
```

```
<HEAD>
```

```
<TITLE> Example </HEAD>
```

</TITLE>

<BODY> </BODY>

</HTML>

Q9. Difference between
 and <HR> tags?

Q10. List some commonly available antivirus programs.

Q11. Write short note on social networking.

Q12. Explain the different types of Protocol.

Q13. What do you mean by Python? Write a short note on it.

Q14 What is e-Governance? Write a short note on it & name some websites related to it.

Q15. Write about Blog vs Websites.