



**G. D. GOENKA
INTERNATIONAL
SCHOOL, NAINITAL
NAUKUCHIATAL,
BHIMTAL**

**SUMMER HOLIDAY HOMEWORK
Session 2021-2022**

Class: XII SCIENCE

Dear Parents,

Due to the worldwide outbreak of COVID-19, the life has come to standstill. Education institutions are no exception to it. Keeping in view the future of our students, the school has decided to keep the students in touch with the academics through fun-filled activities, assignments and projects.

These projects are designed in such a way that you need not go out of your house. These can be completed with the help of online guidance through the given links wherever required.

We sincerely hope that the students will make best use of this time.

Regards!

Principal



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**PREPARATORY ASSIGNMENTS
Session 2020-2021**

Class: XII SCIENCE

Subject: English

General Instructions :

1. It is mandatory to attempt all questions.
2. The holiday homework is to be submitted after the summer break.
3. Holiday homework is to be submitted in a strip file.

Q1. Answer the following questions given below.

1- What did Mr. Hamel bring for his class on his last day in the school?

- | | |
|------------------|----------------|
| A) new pens | C) sweets |
| B) new notebooks | D) story books |

2- "The Last Lesson" story was written in which year?

- | | |
|----------------|----------------|
| A) 1869 - 1870 | C) 1872- 1873 |
| B) 1870 - 1871 | D) 1870 - 1872 |

3- Don't go so fast, you will get to your school in plenty of time means ____

- | | |
|-----------------|-----------------|
| A) getting late | C) not early |
| B) very early | D) early enough |

4- What was there in front of the Bulletin Board?

- | | |
|-------------|------------|
| A) children | C) hawkers |
| B) police | D) a crowd |

5- What bad news used to come from the Bulletin Board?

- | | |
|-----------------|----------------------------------|
| A) lost battles | C) orders of commanding officers |
| B) the draft | D) All of these |

6- Which language would the students study from the next day?

- | | |
|------------|------------|
| A) English | C) Dutch |
| B) German | D) Spanish |

7- What does the expression "in great dread of scolding" mean?

- | | |
|----------------------------------|----------------------|
| A) to be happy about it | C) To be indifferent |
| B) very badly scared of scolding | D) None of these |

8- Why was Franz was shocked to see M. Hamel?

- | | |
|--------------------------------|--|
| A) Because of his formal dress | C) because he had a flower in his hand |
| B) because he gave sweets | D) all of these |

9- What attitude of M.Hamel surprised Franz?

- | | |
|------------------|--------------------|
| A) soft and kind | C) firm and strict |
| B) rude | D) none of these |

10- Who was M.Hamel?

- | | |
|---------------------|---------------------|
| A) a spy | C) soldier |
| B) language teacher | D) School Principal |

11- Firozabad is the centre of which industry?

- | | |
|-----------------------|--------------------------|
| A) Cotton industry | C) Textile industry |
| B) Furniture industry | D) Glassblowing industry |

12-How is Mukesh's attitude different from that of his family?

- | | |
|---------------------------------|-------------------|
| A) Being daring, firm and clear | C) Being a coward |
| B) Being a fighter | D) Not clear |

13- What is the means of survival in Seemapuri?

- | | |
|------------------|---------------|
| A) Work | C) Education |
| B) Merchandising | D) Ragpicking |

14- What is the metaphorical symbol of Seemapuri in the lesson?

A) Poverty

C) Enjoyment

B) Exploitation

D) A little hell

15- What is Mukesh's dream?

A) To be a doctor

C) To be a rogue

B) To be a merchant

D) To be a motor- mechanic

Q2. Answer the following questions given below.

1. What is Saheb looking for in the garbage dumps? Where is he and where has he come from?

2. What explanations does the author offer for the children not wearing footwear?

3. Is Saheb happy working at the tea-stall? Explain

4. What makes the city of Firozabad famous?

5. How is Mukesh's attitude to his situation different from that of his family?

Attempt the following question

Q3. Recent floods in many metropolitan cities of the country during the monsoon season laid bare the hollowness of the claims of the civic authorities of their preparedness. The poor had to bear the brunt of the problem while no one was ever held accountable. Write an article in 150 – 200 words on the common man's woes during the monsoons and the need for accountability of the officials concerned. You are Sumit/Smita Verma

Attempt the following question

Q4. You are Radha G, a member of NGO AWAAZ. Write a letter to the editor of a national daily for a public movement to clean the Yamuna river. (You must introduce yourself, describe how the people are to be blamed for polluting the river and suggest the need for installing water treatment plant to clean the river).

Subject Teacher: Mr. Deewakar Gaur



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Class: XII SCIENCE

Subject: Hindi

निर्देश-

- दिए गए गृह कार्य को फाइल पेपरों में करें
 - कार्य सुंदर एवं लिखावट स्वच्छ होनी चाहिए
 - कार्य स्वयं हस्तलिपि में होना अनिवार्य है
-
1. साहित्य वाद— छायावाद, प्रयोगवाद, प्रगतिवाद के कवियों तथा लेखकों का जीवन परिचय, चित्र एवं उनकी रचनाओं पर लगभग 10 पृष्ठ में परियोजना कार्य तैयार कीजिए ।
 2. सरकार द्वारा निर्देश देने के उपरान्त भी शादी ब्याह जैसे कार्यक्रमों में अत्यधिक भीड़भाड़ के कारण अधिक से अधिक लोग संक्रमित हो रहे हैं इसकी रोकथाम के लिए लगभग 15 दिन के लिए पूर्ण रूप से लॉकडाउन लगाने हेतु स्वास्थ्य एवं कल्याण मंत्रालय से अपील कीजिए ।

Subject Teacher: Mrs. Shashi Sanwal

1. If a matrix has 12 elements, what are the possible orders it can have?

2. Construct a 2×3 matrix $a_{ij} = \frac{2i+3j}{3}$

3.

$$\begin{pmatrix} 2+3 & 2+4 & 2y-7 \\ 4x+6 & a-1 & 0 \\ b-3 & 3b & z-2c \end{pmatrix} = \begin{pmatrix} 0 & 6 & 3y-2 \\ 2x & -3 & 2c-2 \\ 2b+4 & -21 & 0 \end{pmatrix}$$

4. Obtain the values of a, b, c, x, y and z.

Find the value of x such that :-

$$\begin{bmatrix} 1 & 1 & x \end{bmatrix} \begin{pmatrix} 1 & 0 & 2 \\ 0 & 2 & 1 \\ 2 & 1 & 0 \end{pmatrix} \begin{pmatrix} 1 \\ 1 \\ 1 \end{pmatrix} = 0$$

5. Find the value of $A^2 - 4A + 3I$, $A = \begin{bmatrix} 1 & 2 & 0 \\ 3 & -4 & 5 \\ 0 & -1 & 3 \end{bmatrix}$

6. Express the matrix as the sum of symmetric and skew-symmetric matrix:

$$\begin{bmatrix} 3 & 2 & 3 \\ 4 & 5 & 3 \\ 2 & 4 & 5 \end{bmatrix}$$

7. Find elementary transformation to find the inverse of the matrix:

$$\begin{bmatrix} 2 & 0 & -1 \\ 5 & 1 & 0 \\ 0 & 1 & 3 \end{bmatrix}$$

8. Show that $(AB)' = B'A'$

$$A = \begin{bmatrix} 6 & -6 & 0 \\ -4 & 2 & 1 \end{bmatrix} \quad B = \begin{bmatrix} 3 & -2 \\ 2 & 1 \\ 5 & -7 \end{bmatrix}$$

Subject Teacher: Mrs. Saswati Roy



1. What will be the ratio between electrostatic coulomb's force and gravitational force acting between two electrons separated by same distance? Take $m_e = 9.1 \times 10^{-31} \text{ kg}$ and charge on an electron as $1.6 \times 10^{-19} \text{ C}$.
2. The electrostatic force on a small sphere of charge $0.4 \mu\text{C}$ due to another small sphere of charge $-0.8 \mu\text{C}$ in air is 0.2 N .
 - (i) What is the distance between the two spheres?
 - (ii) What is the force on the second sphere due to the first?
3.
 - (i) Explain the meaning of the statement 'electric charge of a body is quantized'.
 - (ii) Why can one ignore quantization of electric charge when dealing with macroscopic i.e. large scale charges?
4. Four point charges $q_A = 2 \mu\text{C}$, $q_B = -5 \mu\text{C}$, $q_C = 2 \mu\text{C}$, and $q_D = -5 \mu\text{C}$ are located at the corners of a square ABCD of side 10 cm . What is the force on a charge of $1 \mu\text{C}$ placed at the centre of the square?
5.
 - (i) An electrostatic field line is a continuous curve. That is, a field line cannot have sudden breaks. Why not?
 - (ii) Explain why two field lines never cross each other at any point?
6. Two point charges $q_A = 3 \mu\text{C}$ and $q_B = -3 \mu\text{C}$ are located 20 cm apart in vacuum.
 - (i) What is the electric field at the midpoint O of the line AB joining the two charges?
 - (ii) If a negative test charge of magnitude $1.5 \times 10^{-9} \text{ C}$ is placed at this point, what is the force experienced by the test charge?
7. A system has two charges $q_A = 2.5 \times 10^{-7} \text{ C}$ and $q_B = -2.5 \times 10^{-7} \text{ C}$ located at points A $(0,0,-15 \text{ cm})$ and B $(0,0,+15 \text{ cm})$, respectively. What are the total charge and electric dipole moment of the system?
8. What is an electric dipole? An electric dipole with dipole moment $4 \times 10^{-9} \text{ Cm}$ is aligned at 30° with the direction of a uniform electric field of magnitude $5 \times 10^4 \text{ NC}^{-1}$. Calculate the magnitude of the torque acting on the dipole.

9. A plastic scale is rubbed with wool is found to have a negative charge of 3×10^{-7} C.
- (i) Estimate the number of electrons transferred from which to which?
 - (ii) Is there is a transfer of mass from wool to scale, if yes than how much?
10. Two spheres A and B having identical sizes with charge on each is 6.5×10^{-7} C separated by a distance of 50 cm. A third sphere of the same size but uncharged is brought in contact with the first, and then brought in contact with the second, and finally removed from both. What is the new force of repulsion between A and B?

Subject Teacher: Mr. Harish Bisht



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Subject: Chemistry

HOMEWORK WILL BE SHARED SOON. AS PER THE AVAILABILITY OF
CONCERNED TEACHER

Subject Teacher: Mr. Avinash Dwivedi



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Subject: Biology

Q1 Project work

- A.** Make a project to demonstrate the production of biogas and also show the construction of a biogas plant.
- B.** Construct a double helix DNA model.
- C.** By the help of a model show the pollination process in context of agents of pollination use thermocol sheets, pictures of different pollinating agents.

Q2 Activities

- A.** Take a flower dissects it and preserves it's all parts with name on a thermocol sheet.

Show the process of double fertilization by making an activity in a project file.

Subject Teacher: Mr. Deepak Sharma



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Subject: Physical Education

Select any one game from the following(student's choice).

1. Athletics
2. Basket ball
3. Football
4. Hockey
5. Kho- kho
6. Kabaddi
7. Volley ball

Content of the file should be as follows-

1. History of the game (5 pages)
2. Fundamental skills of the game
3. Rules and regulations of the game
4. Contribution and achievements of one national and one international player of the selected game/sport.

NOTE:

- i. The file must be neat and clean as it is going to be your board's project file.
- ii. Draw proper diagram(s) as per requirement(s).

Keep yourself safe and enjoy your holidays with your lovely family.

Subject Teacher: Mr. Kamal Sharma



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Class: XII SCIENCE

Subject: Informatics Practices

1. To find average and grade for given marks.
 2. To find sale price of an item with given cost and discount (%).
 3. To calculate perimeter/circumference and area of shapes such as triangle, rectangle, square and circle.
 4. To calculate Simple and Compound interest.
 5. To calculate profit-loss for given Cost and Sell Price.
 6. To calculate EMI for Amount, Period and Interest.
 7. To calculate tax - GST / Income Tax.
 8. To find the largest and smallest numbers in a list.
 9. To find the third largest/smallest number in a list.
 10. To find the sum of squares of the first 100 natural numbers.
 11. To print the first 'n' multiples of given number.
 12. Create a dictionary to store names of states and their capitals.
 13. Create a dictionary of students to store names and marks obtained in 5 subjects.
 14. To print the highest and lowest values in the dictionary.
- 5.3 Data Management: SQL Commands**
15. To create a database
 16. To create student table with the student id, class, section, gender, name, dob, and marks as attributes where the student id is the primary key.
 17. To insert the details of at least 10 students in the above table.
 18. To display the entire content of table.
 19. To display Rno, Name and Marks of those students who are scoring marks more than 50.
 20. To find the average of marks from the student table.
 21. To find the number of students, who are from section 'A'.
 22. To display the information all the students, whose name starts with 'AN' (Examples: ANAND, ANGAD,...)
 23. To display Rno, Name, DOB of those students who are born between '2005- 01-01' and '2005-12-31'.

24. To display Rno, Name, DOB, Marks, Email of those male students in ascending order of their names.
25. To display Rno, Gender, Name, DOB, Marks, Email in descending order of their marks.
26. To display the unique section available in the table.

Subject Teacher: Mr. Akash Saxena