

# N M PUBLIC SCHOOL

## Holiday Homework

Session -2023-24

Class-XI (SCIENCE)

PHYSICS	Do all questions of NCERT in your note book. Learn chapter 2nd and prepare notes.
ENGLISH	1 Write a SCRIPT on any Social Issue . It should be divided into III scenes. Name of the characters should be written on a different page 2 Prepare a project on 'The Role of Literature in the English Language ' 3. Write down the meaning of difficult words starting three chapters of Hornbill.
HINDI	प्रश्न 1 कक्षा में दिए गए परियोजना कार्य को फाइल में कीजिए। प्रश्न 2 जनसंचार माध्यम कितने प्रकार का होता है ,प्रत्येक जनसंचार माध्यम की चित्र सहित व्याख्या कीजिए । प्रश्न 3 पत्रकारिता के विविध आयाम के 30 वस्तुनिष्ठ प्रश्न उत्तर कीजिए ।
CHEMISTRY	A. TOPICS OF INVESTIGATORY PROJECT FILE NOTE:- a) Choose any one topic. b) File should be neat and clean with decoration. 1. Analysis of fertilizer 2. Presence of oxalate ions in guava fruit and different stages of ripening 3. Effect of Potassium Bisulphate as a food preservative 4. Quantity of the presence of casein in different samples of milk 5. Extraction of various essential oils present in Ajwain (Carum), Illaichi (Cardamom) and Saunf (Fennel Seeds) 6. Electrolyte turns on the solar cell 7. Comparative study of the rate of fermentation in the following substances- potato juice, wheat flour, carrot juice, gram flour, etc. 8. Common food adulterants in fat, butter, oil, turmeric powder, pepper, chilli powder, sugar, etc. 9. Preparation of Potash Alum 10. Variation of conductance with temperature in electrolytes 11. Check the ions present in a toothpaste 12. Preparation of soya bean milk 13. Determining caffeine in tea samples 14. Effect of Acid Rain on Limestone Rock 15. Green Chemistry: Bio-Diesel and Bio-Petrol 16. Electrochemical Cell 17. Vitamin C in Fruit Juices 18. Effect Of Sodium Carbonate On the Foaming Capacity Of A Soap 19. Environmental Pollution 20. Fermentation 21. Preparation of Toilet Soaps B. TO PREPARE POWER POINT PRESENTATION ( any one chapter) 1. Some basic concepts in chemistry C. ELEMENT'S NAME Learn and write S- block and P- block element's name, atomic no. and atomic mass. D. Draw a IUPAC chart with suitable example.
PHYSICAL EDUCATION	All students make file on these topic Practical 1 describe changing trends in sports & games in terms of changes in playing surface wearable gears equipment technological advancements Practical 2 labelled diagram of field & equipment of also mention it's mention it's Rules Terminologies & skills. Practical 3 labelled diagram of 400m track & field with computations.
BIOLOGY	1. Do revision of lesson 1 & 2 which is taught in class. 2. Make an assignment on morphology of flowering plant in minimum 20 pages. 3. Make notes and learn the chapter animal kingdom and chapter morphology of flowering plants.
MATHEMATICS	DO THE WORKSHEET ATTACHED TO THIS PDF

Class XI  
Chapter 1 - SETS

Worksheet

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**MCQ / One mark questions**

- 1 If  $A = \{1\}$  Find  $n(P(P(A)))$   
a)1                                  b)2                                  c)4                                  d)16
- 2 Number of subset(s) of an empty set is  
a) 0                                  b)1                                  c)2                                  d)not defined
- 3 Let  $C = \{x : x \text{ is an even prime number greater than } 2\}$ . Then C is  
a) a finite set                      b)an empty set                      c)an infinite set                      d) not a set
- 4 Number of subsets of the set  $\{2,3,4\}$  is  
a)3                                  b)9                                  c)8                                  d) 6
- 5 Representation of  $\{x: x \in \mathbb{R}, -3 < x \leq 8\}$  as interval is  
a)  $[-3,8]$                                   b)  $(-3,8)$                                   c)  $[-3, 8)$                                   d)  $(-3,8]$
- 6 Let  $A = \{x | x \in \mathbb{R}, x \geq 4\}$  and  $B = \{x | x \in \mathbb{R}, x < 5\}$  Then  $A \cap B$  is  
a)  $\{4\}$                                   b)  $\{4,5\}$                                   c)  $[4,5)$                                   d)  $(4,5)$
- 7 Let A and B be two sets such that:  $n(A) = 20$ ,  $n(A \cup B) = 42$  and  $n(A \cap B) = 4$ . Find  $n(B)$ .  
a)18                                  b) 18                                  c)20                                  d)26
- 8 The number of elements in the power set  $P(S)$  of the set  $S = \{\{\varnothing\}, 1, \{2,3\}\}$  is  
a) 4                                  b)8                                  c)2                                  d)16
- 9 If A and B are sets and  $A \cup B = A \cap B$   
a)  $A = \varnothing$                                   b)  $B = \varnothing$                                   c)  $A = B$                                   d)None of these

**Two marks questions**

- 10 If  $P = \{1,2,3,4\}$ ,  $Q = \{2,4,6,8\}$  and  $R = \{3,4,5,6\}$  find  $P \cap (Q \cup R)$
- 11 Find the power set of  $\{a, b, c\}$ .
- 12 Write the following intervals in set-builder form: (i)  $(-7,0)$  (ii)  $[6,12]$
- 13 If X and Y are two sets such that  $n(X) = 15$ ,  $n(Y) = 23$  and  $n(X \cup Y) = 31$ , find  $n(X \cap Y)$ .
- 14 Let  $A = \{p, q, r, s\}$   $B = \{p, s, t\}$ . Find i)  $A \cap B$  ii)  $A \cup B$   
Find all the subsets of  $\{2,4,6\}$
- 15 Two finite sets have m and n elements. The total no. of subsets of the first set is 56 more than the total no. of subsets of second set. Find the value of m and n.

**Four/Six marks questions**

- 16 Let  $U = \{1,2,3,4,5,6,7\}$ ,  $A = \{2,4,6\}$ ,  $B = \{3, 5\}$  and  $C = \{1,2,4,7\}$ , verify that:  
(i)  $(A \cup B) \cap C = A \cap (B \cap C)$     ii)  $A \cap (B \cup C) = (A \cap B) \cup (A \cap C)$
- 17 In a group of 50 people, 35 speak Hindi, 25 speak both English and Hindi and all the people speak at least one of the two languages. How many people speak on English and not Hindi? How many people speak English?
- 18 In a survey of 100 persons, it was found that 28 read magazine A, 30 read magazine B, 42 read magazine C, 8 read magazines A and B, 10 read magazines A and C, 5 read magazines B and C and 3 read all the three magazines. Find i) how many read at least one of the three magazines ii) how many read magazine C only?

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