



مدارس دارة السلام العالمية- الرياض

Daratassalam International

Delhi Public School – Riyadh

**Summer Holiday Homework
Academic Session (2022–23)**

Grade: XI



ENGLISH

S. No.	Subjects	Assignments
1	Creativity	Compose a poem in your own words.
2	Literature	Research on Amitav Ghosh life and his work
3	Literature	The Voice of the Rain {Hornbill}
4	Advanced Writing Skills	Write Speech on any of the following topics.
5	Advanced Communication Skills	Prepare debate on any one of the following topics.

GENERAL INSTRUCTIONS

1. Compose a poem. It must consist of minimum three to four stanzas. Describe all the poetic devices used in it. {Word Limit 50—100}
2. Research thoroughly on the life and works of **Amitav Ghosh** an Indian Author, his poetry collection, awards and recognition. {Word Limit 200—250}
3. Read the poem, “The Voice of the Rain” {Hornbill} & make notes on it. {Word Limit 200—250}
4. Write a speech on any **ONE** of the following topics. {Word Limit 200—250}

1	Laughter Is The Best Medicine
2	The Spirit Of Patriotism In Youth
3	Importance of Personality Development
4	Importance of Effective Communication Skills
5	Independence Day, A Tribute to the Freedom Fighters of India

5. Advanced Communication Skills. Prepare Debate on any one of the following topics. {Word Limit 200—250}

1	Is Democracy the best form of government?
2	Has Social Media improved human communication?
3	Is leisure time essential for workplace effectiveness?
4	Is summer vacation better than that of winter vacation?
5	Should students use smart phones without parental supervision?

NOTE: All the assignments must be handwritten in neat and intelligible way in the English Note Book.

SUBJECT: PHYSICS

Do all the solved examples of text book chapters 2-3.

SUBJECT: CHEMISTRY

Complete the following assignment in chemistry note book

Unit-1, Some Basic Concepts of Chemistry.

- 1) 2.16 g of copper metal, when treated with nitric acid followed by ignition of the nitrate, gave 2.70 g of copper oxide. In another experiment, 1.15 g of copper oxide upon reduction with hydrogen gave 0.92 g of copper. Show that the above data illustrates the law of definite proportions.
- 2) 2.38g of uranium was heated strongly in a current of air. The resulting oxide weighed 2.806g. Determine the empirical formula of the oxide. (atomic mass of U= 238, O = 16).
- 3) An organic compound on analysis gave the following data C= 57.82%, H= 3.6% and the rest is oxygen. Its vapour density is 83. Find its empirical and molecular formula.
- 4) Potassium bromide' KBr contains 32.9% by mass of potassium. If 6.40 g of bromine reacts with 3.60 g of potassium, calculate the number of moles of potassium that combine with bromine to form KBr.
- 5) Calculate the mass percent of calcium, phosphorus and oxygen in calcium phosphate $\text{Ca}_3(\text{PO}_4)_2$
- 6) If 4 g of NaOH dissolves in 36 g of H_2O , calculate the mole fraction of each component in the solution. Also, determine the molarity of solution (specific gravity of solution is 1 g ml^{-1})

Unit-12, ORGANIC CHEMISTRY

1. Give the IUPAC name of the following:
 - a. $\text{Cl}_2\text{CHCH}_2\text{OHCl}_2\text{CHCH}_2\text{OH}$
 - b. $\text{HOCH}_2\text{CH}_2\text{CH}(\text{CH}_3)\text{CH}_2\text{CH}_3$
 - c. $\text{CH}_3\text{CH}_2\text{CH}_2\text{CH}_2\text{CH}=\text{CH}_2$
 - d. $\text{CH}_3(\text{CH}_2)_3\text{CHBrCH}_2\text{CHO}$
2. How many σ and π bonds are present in each of the following molecules?
 - a. $\text{HC}\equiv\text{C}-\text{C}\equiv\text{CCH}_3$
 - b. $\text{CH}_2=\text{C}=\text{CHCH}_3$
3. Write bond-line formulae for:
 - (a) Propylbenzene
 - (b) 3-Methylpentanenitrite
 - (c) 2, 5-Dimethylheptane
 - (d) 3-Bromo- 3-chloroheptane
 - (e) 3-Chloropropanal
 - (f) 2, 2-Dichloroethanol

SUBJECT: BIOLOGY

To make an investigatory project on given topic.

SUBJECT: PHYSICAL EDUCATION

“Make a project on game which you have opted”.

SUBJECT: COMPUTER SCIENCE

- **Revise Chapter 1 and Complete the Question Answers in the Notebook.**
- **Study the Topics Data Representation and Boolean Logic**

SUBJECT: MATHEMATICS

Answer the following questions.

1. Let $A = \{1,2,4,5\}$ $B = \{2,3,5,6\}$ $C = \{4,5,6,7\}$. Prove that
 1. $A \cup (B \cap C) = (A \cup B) \cap (A \cup C)$
 2. $A \cap (B \cup C) = (A \cap B) \cup (A \cap C)$
 3. $A \cap (B - C) = (A \cap B) - (A \cap C)$
 4. $A - (B \cap C) = (A - B) \cup (A - C)$
 5. $A - (B \cup C) = (A - B) \cap (A - C)$
2. In a Survey of 25 students, it was found that 15 had taken Mathematics, 12 had taken Physics and 11 had taken Chemistry, 5 had taken Mathematics and Chemistry, 9 had taken Mathematics and Physics, 4 had taken Physics and Chemistry and 3 had taken all the three subjects. Find the number of students that had
 1. Only Chemistry
 2. Only Mathematics
 3. Only Physics
 4. Physics and Chemistry but not Mathematics
 5. Mathematics and Physics but not Chemistry
 6. Only one of the subjects
 7. At least one of the three subjects
 8. None of the subjects
3. A survey shows that 76% of the Indians like oranges, whereas 62% like bananas. What percentage of the Indians like both oranges and bananas?
4. One of the members of three athletic teams in a certain school, 21 are in the basketball team, 26 in Hockey team, and 29 in the football team. 14 play hockey and basketball, 15 play hockey and football, 12 play football and basketball and 8 play all the three games. How many members are there in all?
5. In a survey of 100 students, the number of students studying the various languages were found to be English only 18, English but not Hindi 23. English and Sanskrit 8, English 26, Sanskrit 48, Sanskrit and Hindi 8, no language 24. Find
 1. How many students were studying Hindi?

2. How many students were studying English and Hindi?
6. Let U be the universal set containing 700 elements. If A, B are sub-sets of U such that $n(A) = 200, n(B) = 300$ and $n(A \cap B) = 100$. Then what is $n(A \setminus B)$?
7. Let R be a relation on the set N of natural numbers defined by $R = \{(a,b) : a + 3b = 12, a \in N, b \in N\}$
Find
1. R
 2. Domain of R
 3. Range of R
8. Let $A = \{1,2,3,4,5,6\}$. Define a relation R on set A by $R = \{(x,y) ; y = x+1\}$
1. Depict this relation using an arrow diagram
 2. Write down the domain, co domain and range of R
9. Determine the domain and range of the following relations:
1. $R = (a, b) : a \in N, a < 5, b = 4\}$
 2. $S = \{a, b\} : b = |a - 1|, a \in Z \text{ and } |a| \leq 3\}$
10. Let $f : R \rightarrow R$ be given by $f(x) = x^2 + 3$ Find
1. $\{x : f(x)=28\}$
 2. The pre images of 39 and 2 under f .
11. Let $A = \{-2, -2, 0, 1, 2\}$ and $f : A \rightarrow Z$ be a function defined by $f(x) = x^2 - 2x - 3$ find
1. Range of f
 2. Pre images of 6, -3 and 5
12. Find the domain of the following functions
1. $f(x) = \frac{1}{x+2}$
 2. $f(x) = \frac{x-1}{x-3}$
 3. $f(x) = \frac{2x-3}{x^2-3x+2}$
 4. $f(x) = \sqrt{x} - 2$
 5. $f(x) = \frac{1}{\sqrt{1-x}}$
 6. $f(x) = \sqrt{4 - x^2}$
13. Find the range of the following functions
1. $f(x) = \frac{1}{\sqrt{x-5}}$
 2. $f(x) = \sqrt{16 - x^2}$
14. Find the domain and range of $f(x) = \frac{4-x}{x-4}$
15. Find the domain and range of $f(x) = \sqrt{x - 3}$

16. Find the range of the following functions

1. $f(x) = |x - 3|$

2. $f(x) = 1 - |x - 2|$

3. $f(x) = \frac{|x-4|}{|x-4|}$