English Core Assignment

- Read the topics taught in the class and note down the question answers in your copy.
- Suppose you are the reporter from the Times of India, an English Newspaper, you are asked to interview the narrator who successfully took everyone to the Ile Amsterdam, the island, and saved their lives by facing the angry Indian Ocean. Write the interview.

Business Studies

- Complete your notes for Chapter 1
- Make mind maps for Chapter 1 and 2

Accountancy

Complete the notes of Chapter 1, 2, 6, 7 and 8

Economics

- Complete the notes of statistics
- Chapter 1 and 2 along with ncert exercise

HOLIDAY HOME-WORK

(1) Complete your Home Assignment copies along with notes and questions and answers.

MICRO ECONOMICS

Learn all the content taught till date

Applied Maths

Sets

1. Basic Set Operations:
2.
Given sets A = {1, 2, 3, 4}, B = {2, 4, 6}, and C = {4, 5, 6}, find:

$A \cup B$

$A \cap B$

$A - B$

$B - A$

$(A \cup B) \cap C$

If A = {1, 2, 3, 4, 5} and B = {2, 4, 6}, then verify that $A \cup (B \cap C) = (A \cup B) \cap (A \cup C)$ where C = {6, 7, 8, 9, 10}.

Illustrate using Venn diagrams:

$(A \cup B) \cup C$

$(A \cap B) \cap C$

3. Set Builder Form:
4.
Write the following intervals in set-builder form:

(-7, 0)

$\{x : x \in R, -3 \leq x < 7\}$

Write the following sets in interval form:

$\{x : x \in R, -4 < x \leq 6\}$

$\{x : x \in R, -12 < x < 10\}$

3. Power Set:

Find the power set of {a, b, c}.

If P(A) has 8 elements, find n(A).

5. Disjoint Sets:
6.
Are sets A = {1, 2, 3, 4} and B = $\{x : x \in N \text{ and } 5 \leq x \leq 7\}$ disjoint? Why?

If A and B are disjoint sets, what is $A \cap B$?

5. Finite and Infinite Sets:

Identify which of the following sets are finite and which are infinite:

Set of concentric circles in a plane.

Set of letters of the English alphabet.

$\{x : x \in N, x > 5\}$

$\{x : x \in N, x < 200\}$

$\{x : x \in Z, x < 5\}$

$\{x : x \in R, x < 0.1\}$

7. Equal Sets:
8.
Which of the following sets are equal:

$A = \{1, 2, 3\}$

$B = \{x : x \in R, x^2 - 2x + 1 = 0\}$

$C = \{1, 2, 2, 3\}$

$D = \{x : x \in R, x^2 - 11x + 6 = 0\}$

7. Other Set Problems:

If X and Y are two sets such that $n(X) = 15$, $n(Y) = 23$, and $n(X \cup Y) = 31$, find $n(X \cap Y)$.

If two finite sets have m and n elements, and the total number of subsets of the first set is 56 more than the total number of subsets of the second set, find m and n.

If P is the set of prime numbers and $S = \{t \mid 2t - 1 \text{ is a prime}\}$, prove that $S \subseteq P$.

Relations

Defining Relations:

If $A = \{1, 2, 3, 4\}$ and $B = \{1, 2, 3\}$, and R is a relation from A to B defined by $R = \{(x, y) : x, y \in A, y = x - 1\}$, find R and its domain and range.

If R is a relation on the set $\{1, 2, 3, 4, 5, 6\}$ defined by xRy if and only if x divides y, then find R and its domain and range.

Computer Science

As budding scientists, you must learn the skill of thinking out of the box and innovative thinking is just about that… As part of your holiday homework, you have to do the following in your fair notebook:

1. Prepare Chapter 1 – "Computer System Overview" and complete the notes of the chapter along with "Assignment" questions.

2. Convert the following decimal numbers into binary and verify the same by converting them in decimal again:

    a. 23

    b. 34

    c. 67

    d. 10

e. 234

f. 789

g. 556

h. 7684

i. 6763

j. 3265

k. 1474

l. 7893

m. 10000

n. 2222

o. 4356

Physics Education

1) Define physical education.
2) What is the aim of physical education?
3) Enlist the objectives physical education.
4) Explain physical and social development.