

- Note :-
- 1- Do the homework in particular subject's fair note book.
 - 2- This summer Assignment carries 10% weightage for PT 1. (Periodic Test I)

Subject – ENGLISH

Subject – HINDI

Subject – MATHS

- Q.1 Write the following sets in the roster form.
a) $A = \{x : x^2 + x, x \in R\}$ b) $F = \{x : x^4 - 5x^2 + 6 = 0, x \in R\}$
- Q.2 If $L = \{1, 2, 3, 4\}$, $M = \{3, 4, 5, 6\}$ and $N = \{1, 3, 5\}$ then verify that $L - (M \cup N) = (L - M) \cap (L - N)$.
- Q.3 Using Venn Diagram, for all sets A, B and C. Show that $A - (B - C) \neq (A - B) - C$.
- Q.4 In a group of 50 students, the number of students studying French, English, Sanskrit were found to be as follows:
French = 17, English = 13, Sanskrit = 15, French and English = 9, English and Sanskrit = 4, French and Sanskrit = 5, French, English and Sanskrit = 3.
Find the number of students who study:
i) only French ii) only English iii) only Sanskrit iv) English and Sanskrit but not French v) French and Sanskrit but not English vi) French and English but not Sanskrit vii) atleast one of the three languages. viii) None of the three languages.
- Q.5 Express each of the following by means of Venn Diagrams
i) $(A \cup B) \cap C$ ii) $(A \cap B) \cap C$ iii) $A - B$ iv) $B - A$
- Q.6 Define subsets.
- Q.7 What is the meaning of letters N, Z, Q, T in sets.
- Q.8 Explain null sets.
- Q.9 Define finite and infinite sets with examples.
- Q.10 Differentiate in roster and set builder form.

Subject - CHEMISTRY

Subject – PHYSICS

- Q.1. Define fundamental forces in nature.
- Q.2. How do science and technology differ?
- Q.3. How is physics related to society?
- Q.4. Write down some advance inventions in physics.
- Q.5. The least count of a screw gauge is 0.001cm. The diameter of a wire measured by it is 0.225cm. Find out the percentage error in this measurement.
- Q.6. Explain the applications and limitations of dimensional analysis.
- Q.7. Assuming that the mass 'm' of the largest stone that can be measured by a flowing river depends on velocity 'v' of water, its density 'd' and acceleration due to gravity 'g'. Show that the mass varies directly as the sixth power of velocity of flow.
- Q.8. Write the dimensions of a/b in the relation: $P = \frac{a-t^2}{bx}$ Where 'P' is the pressure, 'x' is the distance and 't' is the time.
- Q.9. The escape velocity from the surface of the earth is given by $v = \sqrt{2GM/R}$, where m is the mass, R is the radius of the earth. Check the correctness of the given formulae.
- Q.10. Write the dimensions of stress, universal gravitational constant, surface tension, impulse, thrust, pressure, work, angular momentum, power, coefficient of viscosity.
- Q.11. Convert 1 newton into dyne.

Subject – PHYSICAL EDUCATION

Subject – INFORMATICS PRACTICS