GRADE – X

SCIENCE

UNIT TEST – I

M.M:- 30

Instructions:
Read the question paper carefully. Write neatly and legibly. Do not over write. Pay special attention to spelling. Read the answers before submitting the answer sheet.

Section A (Physics) 10 Marks

I) True or False: (2)

1. One horse power is equal to 1000W.
2. A body at height possesses potential energy.
3. In an electric cell chemical energy is converted to mechanical energy.
4. In pendulum it has the maximum potential energy at its mean position.

II) Answer the following questions:- (8)

1. A body is acted upon by a force. State two conditions when the work done is zero.
2. Differentiate between work and power.
3. A boy weighing 350N climbs up 30 steps, each 20cm high in 1 minute.
   Calculate (i) work done and (ii) power
4. State work - energy theorem. Drive its expression also.

Section B (Chemistry) 10 Marks

I. Give one example in each case: [2]

1. a weak mineral acid
2. an acid salt
3. a efflorescent substance
4. a hydrogen containing compound which is not an acid

II. Define and give examples: [2]

1. a normal salt
2. an alkali

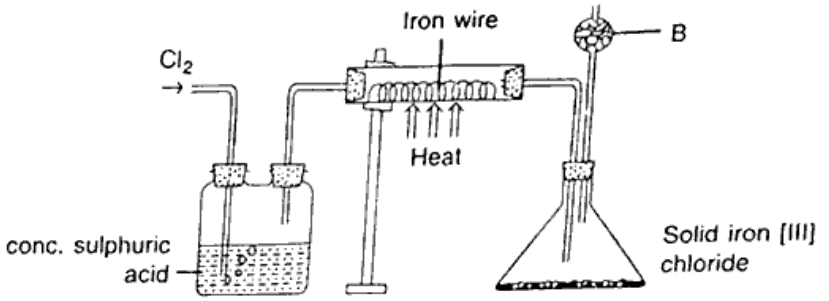
III. You are provided with the following chemicals: NaOH , Cl_2, HCl, Fe [2]

Using the suitable chemicals from the given list only how would you prepare:

1. Iron (III) chloride **2.** Sodium Chloride

Write chemical equations.

IV. The diagram given below is to prepare iron [III] chloride in the laboratory: [4]



1 .What is substance B?
2. What is the purpose of B?
3. Why is iron [III] chloride to be stored in a closed container?
4. Write the equation for the reaction between iron and chlorine.

Section C (Biology) 10 Marks

I. Answer in one word. **(2)**

a)Basic unit of heredity?

b) Number of paired homozygous chromosomes in human male?

II.Match the following. **(2)**

TERM	EXPLANATION
1. Genetics	a) Chromosomes other than the pair of sex
2. Allele	b) A gene that can express when only in similar pair .
3.Autosomes	c) the alternative form of a gene
4. Recessive gene	d) Study of laws of inheritance of character

III. Differentiate between **(2)**

a) Genpotype and phenotype

b) Character and trait

IV. Answer the following. **(2)**

State the three Mendel's law of inheritance

V.Define **(2)**

a)Variations b)Mutations