

Part II

Section 1

(83) a) Cells form organelles to perform different functions for the cell. Every organelles have a specific function such as Cell wall in plant cell, provide protection, support and shape to the cell, Cell membrane, provides passage for nutrients to pass through, Endoplasmic Reticulum (ER) largest organelle in the cell, is responsible for transport of proteins and other carbohydrates. Mitochondria in a human cell, is also known as the power house of the cell. It is used in production of ATP molecules.

(b) Doping is the process of addition of impurity to a ~~se~~ pure semiconductor to make it an Extrinsic semi-conductor which is one of the type of semi-conductor. Extrinsic semi-conductor is formed when impurity ~~from~~ is added to a pure semiconductor from a periodic group III or V making it p-type or n-type semiconductor respectively. The second type of semi-conductor is known as Intrinsic semi-conductor which is a semi-conductor in its pure form e.g. silicon and germanium.

Date: _____

(c) The merits of volcanic eruptions ~~are~~ are
Volcano is a vent in the earth's crust
through which lava and steam are expelled.
The demerits of volcanic eruptions are it
destroys the human ~~part~~ habitat around it
when erupted with molten lava.

(d) Dengue is a disease which is also known
as dandy fever. It is caused by mosquito bite
which transmit dengue virus among people. The
symptoms of dengue are high fever, muscle and
joint pain, headaches, swollen lymph nodes. Remedies
for dengue is wearing protective clothing like
long sleeved shirts, long pants, Use of mosquito
repellents and mosquito nets. The patient of dengue
should be given supportive care in hospital,
replacement of body fluids, painkillers and
monitoring of platelet count.

84) a) Chlorophyll are only present in the
plant cells situated in the leaves. Chlorophyll
traps the sunlight and help the plant
perform the process of photosynthesis.
Chlorophyll is the agent which provides the
leaves ~~are~~ with the green colour.

Date: _____

- (b) Ribosomes are present on the Rough Endoplasmic Reticulum (RER). Ribosomes serve as a site for protein synthesis by decoding the mRNA and linking amino acids to form a new protein.
- (c) The different methods of Solid Waste Management are Landfill, digging a large hole in the ground to dump waste material; Another method is incineration where the solid waste is burned at a high temperature.
- (d) (i) Biofuel
Biofuel are the alternative energy resource.
* It is a substitute fuel derived from the Bio-mass.
It is an environment friendly fuel.
- (ii) Adulteration
It is an act to debase the ~~good~~ quality of food either through the removal of valuable ingredients or through adding an inferior substance in food.
- (iii) Hydrosphere
It represents the water body of earth like rivers, lakes, streams. It is always in motion. Water move great distances and cover greater distances such as between the tropics and poles.

Date: _____

(iv) Troposphere

It is the first atmospheric layer.
It extends upto 20km from the earth surface.
Weather occurs in the troposphere. Temperature drops as the height increases.

(v) Isotopes

Isotopes are the atom of the same material having same atomic number but different mass number such as Uranium-235 and Uranium-237.

Section II

Q6) a) Apple Berry Cherry Date

3 : 6 : 2 : 5

$$\begin{aligned} \text{Date} - \text{Apple} &= 35 &= 17.5 \\ \text{Ratio} &= 2 \end{aligned}$$

$$\begin{array}{r} 17.5 \\ \times 6 \\ \hline 105.0 \end{array}$$

$$\text{Berry} = 6 \times 17.5 = 105 \text{ candies of Berry}$$

(b) Price = \$200, Discount = 25%

Discounted price = \$150 + 6% tax

$$\frac{6}{100} \times 200 = \$12$$

$$\begin{aligned} \text{Discounted price} + \text{tax} &= \text{Amount paid} \\ \$150 + \$12 &= \$162 \text{ Ans} \end{aligned}$$

Date: _____

(c) Distance = 36 km
Speed = 18 km/hr
Time = ?

$$\text{Time} = \frac{\text{Distance}}{\text{speed}}$$

$$T = \frac{36}{18} = 2$$

Time = 2 hours taken

It will reach by 3 pm Ans

(d) i) ~~STATISTICS~~

~~19 20 20 19 3 9 20~~

~~STATISTICS~~

STATISTICS Ans

(ii) ~~LGBMAR~~

Q7) c) Volume of sphere with diameter 14 cm

$$V = \frac{4}{3} \times \pi r^3$$

$$= \frac{4}{3} \times \frac{22}{7} \times 7^3$$

$$= \frac{4}{3} \times \frac{22}{7} \times 343$$

$$= 1436.73 \text{ Ans}$$

$$\begin{array}{r} 869 \\ \times 7 \\ \hline 343 \end{array}$$

