

GSA. Section I.

Question no. 05.

a. What constitute a balanced diet? Functions of Carbohydrates and proteins.

Balanced diet:

"A balanced diet is a diet that contains right proportions of all materials needed for the body"

Constituent of balanced diet.

A balanced diet may contain

50% Carbohydrates 20% Proteins 20% Minerals
10% Fats.

5 - 6 Litres of water

Functions of carbohydrates:

1. Responsible for production of energy.
2. Responsible for the proper functioning of organs
3. For the digestion of fats
4. helps in the digestion of fibres.

Functions of proteins:

1. Helps in energy production
2. Wound healing
3. transport of Oxygen via Haemoglobin.

b. Food Preservation.

Food preservation is the method of preserving food for a long time for later use.

Food Preservation methods have evolved from traditional like salting or drying to modern like refrigeration.

d. RAM and ROM

1. RAM is Random access memory.

ROM is Read only Memory.

2. It is a volatile memory.

It is a non volatile memory.

3. Stores data needed by CPU.

4. Performs both write and read functions.

Only read.

5. Harddisk, SRAM

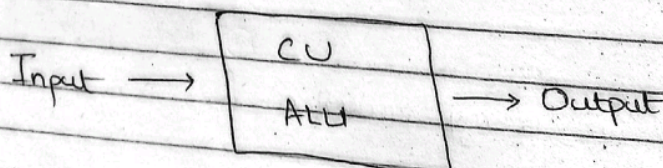
EPROM, PROM

CPU →

CPU is known as the brain of computer. It consists of two parts 1. the Control Unit 2. The Arithmetic Logic Unit.

Control Unit → Controls all commands.

ALU → Performs mathematic operations.



Question no. 03

a. Structure and function of mitochondria and ribosomes.

Mitochondria:

Mitochondria are double membrane organelles. The outer membrane is simple while the inner membrane is folded in a structure called cristae. The folded structure increases the surface area for energy production.

Inside mitochondria, there is a fluid called matrix.

Functions:-

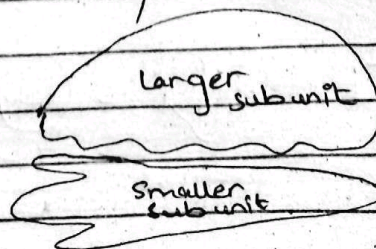
1. Provides energy, therefore known as powerhouse of cell.
2. Breaks oxygen in oxidation-reduction reaction into ATP.

Ribosomes:-

Ribosomes are double membrane bounded organelles that are freely floating in the cytoplasm. They consist of two subunits. The larger subunit and the smaller. The units unite during the process of protein synthesis and then submerge.

Function:-

Ribosomes aid in protein synthesis.



c. Renewable

1. Energy resources that are regenerated.
2. They are safe and clean
3. For instance, solar energy, hydro energy, wind energy

Non Renewable

- Those sources which cannot be obtained again once consumed.
- They are harmful and causes global warming
- For instance, Coal, Methanes Gas.

Section II.

Q8.

a. ROAD = UQDG
LAKE = ?
OCNH

b. Son of my sister's husband is the father of your son. Woman related to man?

Sister is represented as =

Husband as ♥

Father as ○

Son as □

Son □ of (Sister's husband ♥) is (father ○) of (your son □)

Woman is the Sister of man.

c. Sequence.

i. 4, 12, 6, 18, 9, 27, 36

ii. 1, 2, 6, 24, 120, 720

d. P, Q, R, S, T.

3rd tallest = Q is the third tallest.

Max. possible range of heights. =
between 150cm — 180cm tall.