

Vidya Bhawan Balika Vidyapeeth Lakhisarai

Arun Kumar Gupta

Class 9<sup>th</sup>

Subject : Biology

Date:- 25.04.21

### **CHAPTER –1**

#### **THE FUNDAMENTAL UNIT OF LIFE**

### **3. Ribosomes:**

These are extremely small, dense and spherical bodies which occur freely in the matrix (cytosol) or remain attached to the endoplasmic reticulum.

These are made up of ribonucleic acid (RNA) and proteins.

#### **Function:**

They play a major role in the synthesis of proteins.

### **4. Mitochondria:**

They are small rod-shaped organelles.

It is a double membrane structure with outer membrane being smooth and porous whereas inner membrane being thrown into a number of folds called cristae.

They contain their own DNA and ribosomes.

They are absent in bacteria and red blood cells of mammals.

#### **Functions:**

- They are the sites of cellular respiration, hence provide energy for the vital activities of living cells.
- They store energy releases during reactions, in the form of ATP (Energy currency of the cell). Therefore, they are also called 'power house' of the cell.

### **5. Centrosome and Centrioles:**

Centrosome is found only in eukaryotic animal cells. It is not bounded by any membrane but consists of centrioles.

Centrioles are hollow cylindrical structures arranged at right angle to each other and made up of microtubules.

**Function:**

Centrioles help in cell division and also help in the formation of cilia and flagella.

