

⇒ Membraneless

- discoverer: Palade

- Electron Microscopic structure

- Present in ~~both~~ prokaryotic as well as eukaryotic cells.

- Ribosomes are of two types - (A) 70S type & (B) 80S type

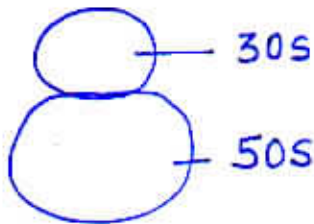
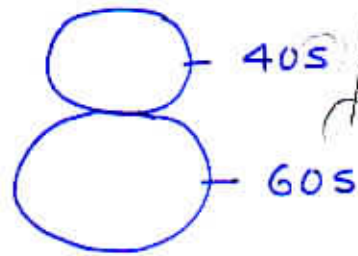
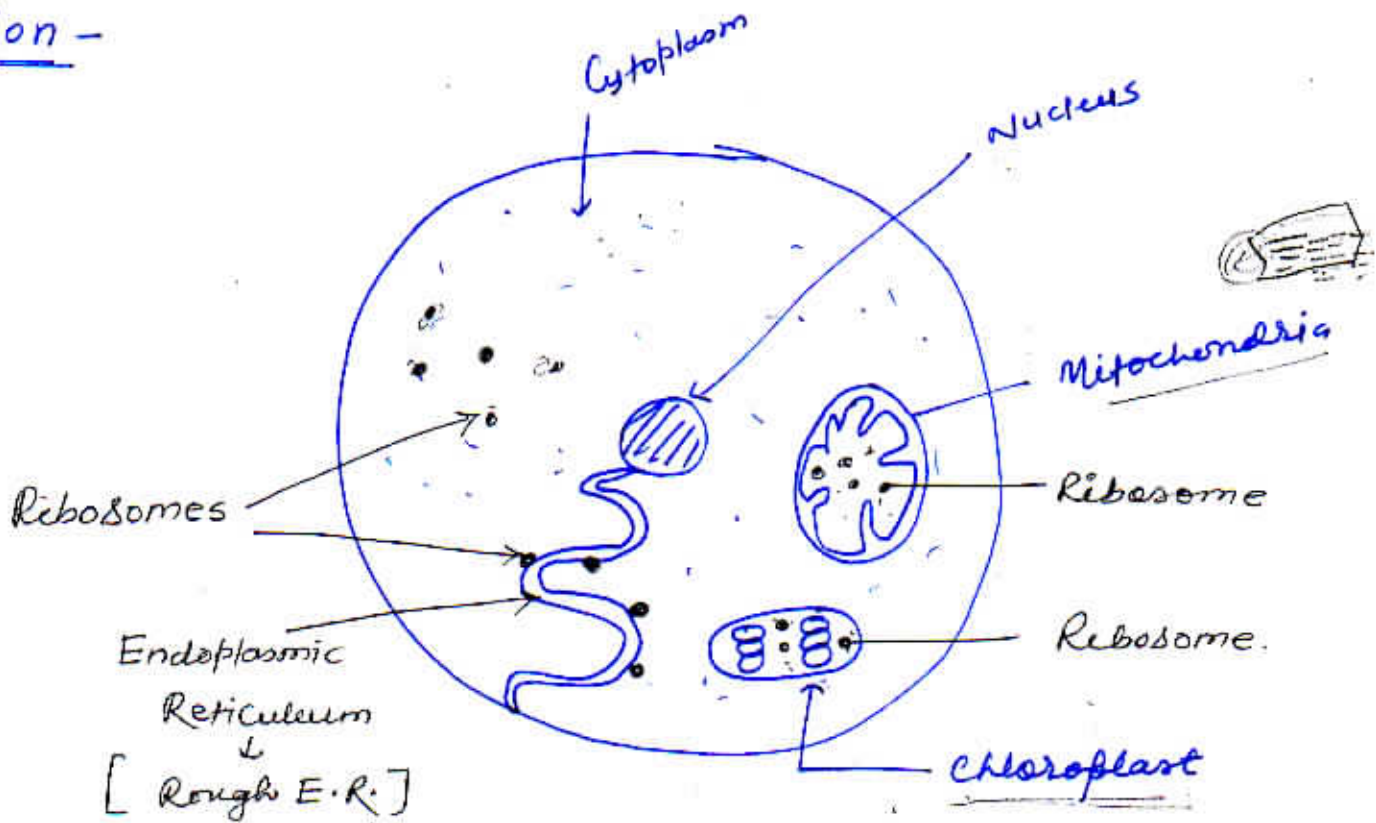


Fig - 70S type
↓
20nm



80S type

Location -



Structure of Ribosomes.

- Ribosomes are made up of two sub-units - smaller sub-unit & larger sub-unit.
- 70S type of Ribosomes consists of two sub-units - 30S & 50S. (S = ~~for~~ Svedberg unit)
- 80S type of Ribosomes also consist of two sub-units :- 40S and 60S.
- Ribosomes are chemically made up of r-RNA and proteins. therefore, ribosomes are chemically ribonucleoproteins. the proportion of RNA and proteins are almost equal.
- types of r-RNA present in ribosomes are
 - 5S r-RNA
 - 5.8S r-RNA
 - 16S r-RNA
 - 18S r-RNA
 - 28S r-RNA.



- Location - Ribosomes are found in the cytoplasm both in free and associated with endoplasmic reticulum. Such ribosomes are called rough endoplasmic reticulum.
- 80S type of ribosomes are present in the cytoplasm of eukaryotic cells.
 - 70S type of ribosomes are present in the cell organelle mitochondria & chloroplast.
 - 70S type are present in prokaryotic cells.