

Cell Biology

1. Chlorophyll in chloroplast is located in 2005
1. Grana 2. Pyrenoid
3. Stroma 4. Both stroma and grana
2. Which of the following regarding cilia is not correct. 2006
1. cilia contain an outer ring of nine doublet microtubules surrounding two singlet microtubules.
2. the organized beating of cilia is controlled by fluxes of calcium ions across the membranes.
3. cilia are hair like cellular appendages
4. microtubules of cilia are composed of tubulin.
3. Which of the following statements regarding mitochondrial membrane is not correct? 2006
1. the outer membrane resembles sieve
2. the outer membrane is permeable to all kinds of molecules.
3. the enzyme of the electron transfer chain are embedded in the membrane.
4. the inner membrane is highly convoluted forming a series of infoldings.
4. Select the wrong statement from the following 2007
1. both chloroplasts and mitochondria have an internal compartment, the thylakoid space bounded by the thylakoid membrane.
2. both chloroplast and mitochondria contain DNA
3. the chloroplasts are generally much larger than mitochondria.
4. both chloroplasts and mitochondria contain an inner and outer membrane.
5. Which one of the following is not a constituent of cell membrane? 2007
1. glycolipids **2. Proline** 3. Phospholipids 4. cholesterol
6. The two sub units of ribosome remain united at a critical ion level of 2008
1. magnesium 2. Calcium 3. Copper 4. Manganese

7. In germinating seeds fatty acids are degraded exclusively in the 2008
1. peroxisomes 2. Mitochondria 3. Proplastids
4. Glyoxysomes
8. Vacuole in a plant cell 2008
1. lacks membrane and contains air.
2. lacks membrane and contains water and excretory substances.
3. is membrane bound and contains storage proteins and lipids.
4. is membrane bound and contains water and excretory substances.
9. Plasmodesmata are 2009
1. locomotary structures
2. Membranes connecting the nucleus with plasmalemma
3. connections between adjacent cells
4. lignified cemental layers between cells.
10. Cytoskeleton is made up of 2009
1. callose deposits
2. cellulosic microfibrils
3. proteinaceous filaments
4. calcium carbonate granules.
11. Middle lamella is mainly composed of 2009
1. muramic acid **2. Calcium pectate** 3. Phosphoglycerides
4. Hemicelluloses
- 12. An elaborate network of filamentous proteinaceous structures present in the cytoplasm which helps in the maintenance of cell shape is called :** 2010
1) Thylakoid
2) Endoplasmic Reticulum
3) Plasmalemma
4) Cytoskeleton

13. 46. At metaphase, chromosomes are attached to the spindle fibres by their : 2011

- (1) Satellites
- (2) Secondary constrictions
- (3) Kinetochores**
- (4) Centromere

14. Ribosomal RNA is actively synthesized in 2012

- (1) Ribosomes
- (2) Lysosomes
- (3) Nucleolus**
- (4) Nucleoplasm

15. Which one of the following cellular parts is correctly described ? 2012

- (1) Lysosomes - optimally active at a pH of about 8.5
- (2) Thylakoids - flattened membranous sacs forming the grana of chloroplasts**
- (3) Centrioles - sites for active RNA synthesis
- (4) Ribosomes - those on chloroplasts are larger (80s) while those in the cytoplasm are smaller (70s)