Name:	Cell: The unit of life
Description:	Cell structure, cell organelles and functioning
CreatedBy:	
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No Of Questions:	40
Negative marking:	0
Guidelines:	Check your understanding of cells with this test. Read and prepare well before attempting.

1. Muramic acid is found in cell walls of:

    1. Fungi
    2. Green plants
    3. Bacteria
    4. All of the above

2. Cell membrane is made up of:

    1. Cellulose and phospholipids
    2. Phospholipids and carbohydarates
    3. Phospholipids and proteins
    4. Phospholipids, proteins and carbohydrates

3. Cell wall has the following features:

    1. Dead and freely permeable
    2. Dead and selectively permeable
    3. Living and impermeable
    4. Living and semi permeable

4. Carbohydrate present in cell wall of fungi has:

    1. Phosphorus
    2. Silicon
    3. Oxygen
    4. Nitrogen

5. The Fluid mosaic model states that the cell membrane is made of:

    1. Cellulose, Hemicellulose and Phospholipids
    2. Phospholipids, Integral and Extrinsic proteins
    3. Phospholipids and Extrinsic proteins
    4. Cholesterol and Proteins

6. The fluidity of cell membrane is due to:

    1. Phospholipids
    2. Proteins
    3. Carbohydrates
    4. Cholesterol

7. Which of the following statements is true regarding cell membranes:

    1. Proteins can move laterally within the Phospholipid bilayer
    2. Phospholipids are arranged as a bilayer
    3. Cholesterol gives stability to the membrane
    4. All of the above

8. The cell membrane is :

    1. Partially permeable
    2. Selectively permeable

3. Semi permeable
4. **Selectively semipermeable**

9. The fluid nature of cell membrane helps the cell to:

    1. Divide
    2. Grow
    3. Move
    4. **All of the above**

10. A fundamental characteristic of a living cell that can be viewed under the microscope is:

    1. Presence of starch granules
    2. Presence of a large, empty vacuole
    3. **Presence of cyclic movements in the cytoplasm**
    4. Presence of cell wall

11. Rough ER is mainly responsible for

    1. **Enzyme synthesis**
    2. Cell wall synthesis
    3. Lipid synthesis
    4. Cholesterol synthesis

12. One of the functions of Golgi bodies is:

    1. **Lysosome formation**
    2. Spindle fibre formation
    3. ER formation
    4. All of the above

13. Mitochondrial DNA is:

    1. Single stranded, linear,naked
    2. **Double stranded, circular, naked**
    3. Organised into chromosomes
    4. Organised into sister chromatids

14. Golgi bodies originate from:

    1. Lysosomes
    2. Vacuoles
    3. Nucleus
    4. **Endoplasmic reticulum**

15. The mitochondrial ribosome in mammals is:

    1. 30s
    2. 40s
    3. **70s**
    4. 60s

16. Under extremely unfavourable conditions the lysosome inside a cell bursts leading to

    1. Cell expansion
    2. Cell shrinkage

3. Cell growth
4. Cell death

17. The power house of the cell and the energy currency it produces is:

1. ATP, Mitochondria
2. ATP, DNA
3. Nucleus, ATP
4. Mitochondria, ATP

18. Hydrolytic reactions in a cell commonly take place due to:

1. Enzymes in RER
2. Enzymes in Golgi bodies
3. Enzymes in Lysosomes
4. Enzymes in Cytoplasm

19. Which of these are semiautonomous and capable of self duplication:

1. Nucleus, Ribosome
2. Mitochondria, Ribosome
3. Nucleus, SER
4. Mitochondria, Chloroplast

20. Oxygen is produced by reactions in the:

1. RER
2. Lysosomes
3. Chloroplast
4. Peroxisomes

21. Modification and packaging of substances is a function of:

1. ER
2. Nucleus
3. Golgi Bodies
4. Ribosomes

22. The Golgi bodies are made of:

1. Cisternae and Lamellae
2. Vesicles and Cristae
3. Cristae and Lamellae
4. Cisternae and Vesicles

23. The pH at which lysosomal contents function best is:

1. 3-5
2. 5-8
3. 7
4. 9-12

24. The fluid enclosed within Mitochondrial cristae is:

1. Mitoplasm
2. Cytoplasm

3. Matrix

4. Cell sap

25. These are predominantly found in the liver cells and are concerned with detoxification:

1. RER and Lysosomes
2. SER and Lysosomes
3. SER and RER

4. SER

26. Single, double and no membrane bound organelles are:

1. Lysosome, Mitochondria and Nucleus
2. Vacuole, SER, Nucleus
3. SER, RER, Nucleus

4. Vacuoles, Nucleus, Ribosomes

27. Intermembrane space is present in:

1. Mitochondria
2. Chloroplast
3. Nucleus

4. All of the above

28. The contents of vacuole comprise of the following and are known as:

1. Fats, proteins,solids - Vacuoplasm
2. Minerals, ions, toxins - Vacuoplasm
3. Fats, proteins,solids - Endoplasm

4. Minerals, ions, toxins - Cell sap

29. Centrioles are found in:

1. Chromosomes - Plant cells
2. Chrormosomes - Animal cells
3. Centrosomes - Plant cells

4. Centrosomes - Animal cells

30. The chloroplasts in plant cells are:

1. Oval shaped and parallel to incident light
2. Flat and parallel to incident light
3. Cup shaped and perpendicular to incident light

4. Oval shaped and perpendicular to incident light

31. Endosymbiont theory is based on:

1. Mitochondria and Chloroplast are found in eukaryotes
2. Mitochondria and Chloroplast are double membraned

3. Mitochondria and Chloroplast have their own DNA

4. All of the above

32. Ribosomes are composed of :

1. DNA and proteins
2. DNA and RNA

3. DNA and monosaccharides

4. RNA and proteins

33. When centrifuged at high speeds, organelles will separate out in the following sequence:

1. Nucleus, Ribosomes, Mitochondria
2. Ribosomes, Mitochondria, Nucleus

3. Nucleus, Mitochondria, Ribosomes

4. Mitochondria, Nucleus, Ribosomes,

34. Ribosome synthesis happens in:

1. RER
2. Golgi bodies

3. Nucleolus

4. Cell membrane

35. The total number of fibers in the periphery of centrioles are:

1. 2

2. 9

3. 11
4. 7

36. Tubulin is :

1. Protein of Flagella in Prokaryotes

2. Protein of Cilia in Eukaryotes

3. Protein of Muscle fibers in Eukaryotes
4. Protein of Basal bodies in Eukaryotes

37. Microtubules in centrioles are :

1.Arranged as 9+0

2.Exist as dimers

3.Have a cartwheel apppearance

Which of the following are true-

1. 1 & 2

2. 1& 3

3. 2&3
4. 1&2&3

38. Which of the follwing is true regarding cilia?

1. Inner ring has 2 single microtubules

2. Inner ring has 2 doublets of microtubules
3. Outer ring has 9+2 doublets of microtubules
4. Outer ring has 9 single microtubules

39. Nuclear pores help in exchange of materials between:

1. Nucleolus and Nucleoplasm
2. Nucleolus and Sarcoplasm
3. **Nucleoplasm and Cytoplasm**
4. Cytoplasm and Sarcoplasm

40. Which of the following are absent in plant cells?

1. Lysosomes
2. Centrioles
3. Cell membrane
4. Ribosomes

1. **1 and 2**
2. 1,2 and 3
3. 1,3 and 4
4. 1,2 and 4