CELL BIOLOGY

1. The term 'nuclear envelope' is more appropriate than the term 'nuclear membrane', because
   (A) the enclosure has pores which membranes do not
   (B) the enclosure is made up of two membranes
   (C) the chemical composition is inconsistent with cellular membranes
   (D) both the terms are the same
2. Ribosomes are made up of – subunits
   (A) 0 (they are whole) (B) 2 (C) 4 (D) 3
3. Proteins synthesized by the rough ER are
   (A) exported from the cell (B) for internal regulation
   (C) for internal storage (D) to digest food in lysosomes
4. The Golgi apparatus is involved in
   (A) transporting proteins that are to be released from the cell
   (B) packaging proteins into vesicles
   (C) altering or modifying proteins
   (D) all of the above
5. Mechanical support to the cell is provided by
   (A) Golgi bodies (B) micro fibrils (C) endoplasmic reticulum (D) chromatids
6. Which of the following organelles is found in plant cells but not in animal cells?
   (A) Ribosomes (B) Endoplasmic reticulum
   (C) Mitochondria (D) None of the above
7. Plastids that contain starch are called _____ whereas those contain red and yellow pigments are called _____
   (A) amyloplasts, chromoplasts (B) chromoplasts, leucoplasts
   (C) leucoplasts, chloroplasts (D) chiroplasts, amyloplasts
8. Which organelle is composed of cristae and a matrix?
   (A) Chloroplast (B) Nucleolus (C) Mitochondrion (D) Central vacuole
9. Ribosomes
   (A) are not membrane bound (B) are the site of protein synthesis
   (C) may be floating free in the cytoplasm (D) all of the above
10. Ribosomes contain maximum amount of
    (A) steroids (B) lipids (C) RNA (D) DNA
11. Which organelle looks like a stack of hollow pancakes?
    (A) Smooth ER (B) Rough ER (C) Mitochondria (D) Golgi apparatus
12. Which type of organelle forms a membranous system of tubular canals that is continuous with the nuclear envelope and branches throughout the cytoplasm?
    (A) Mitochondria (B) Rough ER (C) Golgi apparatus (D) Smooth ER
13. Which of the following is not an organelle?
    (A) Lung (B) Endoplasmic reticulum
    (C) Chloroplast (D) Mitochondria
14. The primary structures for the packaging of cellular secretions for export from the cell are
    (A) Golgi bodies (B) ribosomes (C) mitochondria (D) lysosomes
15. The part of the cell responsible for maintaining cell shape, internal organization, and cell movement is the
    (A) vesicle (B) nucleus
    (C) endoplasmic reticulum (D) cytoskeleton

16. Stroma and grana are portions of
(A) chloroplasts (B) mitochondria (C) ribosomes (D) chromosomes

17. The term cell' was coined by
(A) R G Harrison (B) Feulgen (C) Weismann (D) Robert Hooke

18. DNA is found in
(A) smooth endoplasmic reticulum (B) ribosome
(C) nucleus (D) lysosomes

19. Cell wall is present in
(A) plant cell (B) prokaryotic cell (C) algal cell (D) all of the above

20. A prokaryotic cell lacks
(A) cell wall (B) cell membrane (C) cytoplasm (D) nucleolus

21. The cell membrane is made up of
(A) glycoproteins (B) phospholipids proteins
(C) phosphoproteins (D) protein bilayer

22. Aerobic respiration is performed by
(A) glyoxisomes (B) mitochondria (C) lysosomes (D) chloroplasts

23. The plastids which make flowers and fruits conspicuous to animals for pollination and dispersal are
(A) chloroplast (B) chromoplast (C) leucoplast (D) none of these

24. The transitional cell organelle between endoplasmic reticulum and plasma membrane is
(A) lysosome (B) ribosome (C) Golgi complex (D) mitochondria

25. Fat storing chloroplasts are called
(A) aleuroplasts (B) amyloplasts (C) elaioplasts (D) chromoplasts

26. Lysosomes are made up of
(A) one membrane (B) two membranes (C) three membranes (D) none of these

27. Which of the following is not membrane bound?
(A) Spherosome (B) Mitochondria (C) Ribosome (D) Lysosome

28. An old living cell is characterized by the
(A) absence of vacuole (B) presence of two nuclei
(C) absence of nucleus (D) presence of large vacuole

29. A prokaryotic cell within an eukaryotic cell is
(A) nucleus (B) ribosome (C) chloroplast (D) ER

30. Cytoplasm is a part of
(A) karyolymph (B) protoplasm (C) tonoplasm (D) nucleus

31. Double membrane is absent in
(A) mitochondria (B) chloroplast (C) nucleus (D) lysosomes

32. Cell secretion is done by
(A) plastid (B) endoplasmic reticulum
(C) golgi apparatus (D) nucleolus

33. Power house of the cell is
(A) Mitochondria (B) plastid (C) vacuole (D) nucleus

34. Which of the following is true?
(A) Only plant cells contain chloroplasts (B) Some cells contain cytoplasm
(C) All cells have a cell wall (D) All cells have a nucleus

35. A threadlike material called chromatin is located within the
(A) nucleus (B) lysosome (C) endoplasmic reticulum (D) golgi apparatus

36. Prokaryotic organisms includes
(A) archaebacteria, eubacteria and protists (B) archaebacteria and protists
(C) protists and eubacteria (D) eubacteria and archaebacteria

37. Unicellular eukaryotes are grouped into
(A) fungi and plantae (B) fungi
(C) protists (D) eubacteria

38. Eukaryotes differ from prokaryotes in that
(A) eukaryotes do not have organelles (B) eukaryotes have a single chromosome
(C) eukaryotes have a nucleus and organelles (D) eukaryotes do not divide by mitosis

39. Bacterial cells are prokaryotic in comparison to a typical eukaryotic cell they would
(A) be smaller (B) have a smaller nucleus
(C) lack a plasma membrane (D) have a greater variety of organelles

40. Which of the following information would tell you whether a cell is prokaryotic or eukaryotic?
(A) the presence or absence of a rigid cell wall
(B) whether or not the cell is partitioned by internal membranes
(C) the presence or absence of ribosomes
(D) whether or not the cell carries out cellular metabolism

41. Among the common features shared by prokaryotes and eukaryotes are
(A) same shapes and sizes
(B) same types of movement
(C) common organic substances such as proteins and carbohydrates
(D) ribosomes of the same sedimentation coefficient

42. Osmosis is a form of diffusion in which
(A) the solute moves freely from a region of higher concentration to lower concentration through a semipermeable membrane
(B) the solvent moves through a semipermeable membrane from region, where a solute is in higher concentration to region of lower concentration
(C) the solvent moves through a semipermeable membrane from higher solvent concentration to lower solvent concentration
(D) solute as well as solvent moves freely from a region of higher concentration to lower concentration through a semipermeable membrane

43. I place a cell in a solution. Over a period of time, I notice that the cell shrinks, as if it is losing water. Which of the following seems likely?
(A) the solution is a strong buffer
(B) the solution is an acid
(C) the solution has more dissolved solutes than the cell does
(D) the solution has fewer dissolved solutes than the cell does

44. When a cell membrane moves substances from a region of lower concentration to a region of higher concentration, and expends energy in the process, this type of movement is called
(A) osmosis (B) diffusion (C) active transport (D) facilitated diffusion

45. In the fluid-mosaic model of the membrane
(A) the protein is arranged in layers
(B) the lipid has no specific arrangement
(C) the lipid is fluid and arranged in a bilayer with functional protein embedded in them
(D) lipids and proteins are not arranged in any particular order

46. Carbohydrates present on the plasma membrane
(A) have structural role (B) form channel
(C) act as carrier (D) help in molecular recognization

47. Which of the following is a function of plasma membrane?
(A) structural barrier and cell communication
(B) metabolic activities and cell adhesion
(C) mass flow regulation, active transport, diffusion, endocytosis and exocytosis
(D) all of the above

48. In simple diffusion process, molecules cross the plasma membrane
(A) against concentration gradient (B) along concentration gradient
(C) do not depend on concentration (D) with the help of energy

49. When an ion or solute is moved against a concentration gradient using energy, the process is called
(A) diffusion (B) transport (C) active transport (D) regulated diffusion

50. The process by which a cell secretes macro-molecules by fusing a vesicle to the plasma membrane is called
(A) endocytosis (B) exocytosis (C) pinocytosis (D) phagocytosis

51. Which of the following statement is correct for the endoplasmic reticulum (ER)?
(A) the SER is the site for the synthesis, modifications and sorting of proteins
(B) the RER is the site for lipid biosynthesis
(C) the RER is the site for the modifications and sorting of proteins
(D) the RER is the site for protein synthesis and SER is involved in modifications and sorting of proteins

52. Membranes of the following two organelles are continuous
(A) ER and golgi (B) nucleus and ER
(C) golgi and plasma membrane (D) golgi and lysosomes

53. Which one of the following organelles is enclosed by a single membrane?
(A) mitochondria (B) nucleus (C) chloroplast (D) lysosome

54. If a subcellular fraction from liver tissue exhibits high level of acid phosphates activity, it is enriched in
(A) nuclei (B) lysosomes (C) mitochondria (D) golgi bodies

55. If cells are broken up and sedimented by centrifugation, the new structure formed is
(A) centrosome (B) lysosome (C) microsome (D) ribosomes

KEY

1.	**B**	**2.**	**B**	**3.**	**A**	**4.**	**D**	**5.**	**B**
6.	**D**	**7.**	**A**	**8.**	**C**	**9.**	**D**	**10.**	**C**
11.	**D**	**12.**	**B**	**13.**	**A**	**14.**	**A**	**15.**	**D**
16.	**A**	**17.**	**D**	**18.**	**C**	**19.**	**D**	**20.**	**D**
21.	**B**	**22.**	**B**	**23.**	**B**	**24.**	**C**	**25.**	**C**
26.	**A**	**27.**	**C**	**28.**	**D**	**29.**	**C**	**30.**	**B**
31.	**D**	**32.**	**C**	**33.**	**A**	**34.**	**A**	**35.**	**A**
36.	**D**	**37.**	**C**	**38.**	**C**	**39.**	**A**	**40.**	**B**
41.	**C**	**42.**	**C**	**43.**	**C**	**44.**	**C**	**45.**	**C**
46.	**D**	**47.**	**D**	**48.**	**B**	**49.**	**C**	**50.**	**B**
51.	**D**	**52.**	**B**	**53.**	**D**	**54.**	**B**	**55.**	**D**

❇ *Wish You esf all the Best* ❇