NEET : CHAPTER WISE TEST- 9

SUBJECT :- BIOLOGY **DATE.....**
CLASS :- 11th **NAME.....**
CHAPTER :- CELL THE UNIT OF LIFE **SECTION.....**

(SECTION-A)

1. Which of the following statement is incorrect?
(A) Unicellular organisms are capable of independent existence, but they cannot perform all the vital functions of life.
(B) Anything less than a complete structure of a cell does not ensure independent living.
(C) Anton van Leeuwenhoek first saw and described a live cell.
(D) Robert Hooke published his work in Micrographia

2. Who proposed the cell theory?
(A) Robert Hooke
(B) Virchow
(C) Schleiden and Schwann
(D) Singer and Nicolson

3. Which of the following statement is not a part of final cell theory?
(A) All living organisms are composed of cells and product of cells.
(B) All cells arise from pre-existing cells.
(C) Cell has a thin outer layer called plasma membrane.
(D) More than one option is correct.

4. The feature which differentiate cells of human cheek with the cells of onion peel is
(A) The type of outer boundary
(B) Cytoplasm which is the main arena of cellular activities
(C) Absence of centriole
(D) Presence of dense membrane bound structure

5. Choose the incorrect statement w.r.t. the main arena of cellular activities of a cell:
(A) It is a semifluid matrix.
(B) It occupies the volume of cell.
(C) It is found in both plant and animal cells.
(D) It is also called as cell sap.

6. Most prokaryotic cells, particularly bacterial cells have
(A) A chemically simple cell envelope
(B) A chemically complex cell envelope
(C) No cell envelope
(D) Cell envelope in the form of cell wall and cell membrane only

7. Which of the following is absent in prokaryotes?
(A) Ribosomes (B) Nucleoid
(C) Sap vacuoles (D) Gas vacuoles

8. _____is the largest isolated single cell.
(A) Egg of Salamander
(B) Egg of an Ostrich
(C) Nerve cell
(D) Mesophyll cell

9. Inclusion bodies in bacterial cells are
(A) Non-living storage granules
(B) Lie free in cytoplasm
(C) Bounded by a membrane system
(D) All except (C)

10. A prokaryotic cell is characterized by
(A) Presence of ds linear DNA but no histones
(B) Distinct chromosomes but no nucleus
(C) Absence of membrane-bound cell organelles
(D) All of these

11. Which of the following structure is equivalent to mitochondria in a prokaryotic cell?
(A) Mesosomes (B) Dictyosomes
(C) Lysosomes (D) Glyoxysomes

12. The ribosomes of a polysome translate the_____into proteins.
(A) mRNA (B) tRNA
(C) rRNA (D) DNA

13. Cellulose, galactans, mannans and calcium carbonate are found in the cell wall of
(A) Fungi (B) Algae
(C) Diatoms (D) Higher plants

14. The meristematic and parenchymatous cells have
(A) Only primary cell wall
(B) Large central vacuoles
(C) Only secondary cell wall
(D) Middle lamella and secondary cell wall

15. Read the following statements w.r.t. cell wall and select the correct option:
(A) A non-living rigid structure which forms an outer covering for the plasma membrane.
(B) It gives shape to the cell and protect the cell from mechanical damage and infection.
(C) It helps in cell-to-cell interaction.
(D) It provides barrier to undesirable macromolecules.
(A) Only (A) is correct
(B) Only (A) and (B) are correct
(C) (D) is incorrect
(D) (A), (B), (C), (D) are correct

16. Which of the following cell organelles has enzymes 36 which are optionally active at acidic pH?
(A) Lysosomes (B) Mitochondria
(C) Lomasomes (D) Chloroplast

17. An animal cell differs from higher plant cell in possessing
(A) Vacuoles (B) Centrosomes
(C) Distinct cell wall (D) Cytoskeleton

18. -A student studies cell structure under compound microscope and concludes that the cell is an animal cell. Of the following, which observation might have helped him to conclude it?
(A) The cell had its nucleus toward the centre.
(B) The cell had only cell membrane as the limiting boundary.
(C) Mitochondria and plastids were brightly stained.
(D) The cell had flagella arising from basal body.

19. If the cell wall of a plant cell is removed, which of the following ability will be lost by the cell?
(A) Shrinking of protoplasm
(B) Exosmosis by cell
(C) Prevention of over expansion of cell
(D) Prevention of flaccidity

20. All the given cell organelles are included endomembrane system, except in
(A) Endoplasmic reticulum
(B) Nucleus
(C) Golgi apparatus
(D) Vacuole

21. Who proposed the fluid mosaic model of plasma- membrane?
(A) Camillo Golgi
(B) Singer and Nicolson
(C) Schleiden and Schwann
(D) Rudolf Virchow

22. How many different proteins does the ribosome consist of?
(A) 80 (B) 60 (C) 40 (D) 20

23. The molecule in a membrane that limit its permeability are
(A) Carbohydrates (B) Proteins
(C) Phospholipid (D) Water

24. Chemical studies especially in scientists to deduce the possible structure of plasma membrane.
enabled the
(A) Human WBC (B) Human RBC
(C) Muscle (D) Neurons

25. Identify the organelles on the basis of given features.
A. Involved in the synthesis of lipid-like steroidal hormones.
B. Show different morphological and physiological states during functioning.
C. Involved in the cell plate formation during cytokinesis in plant cells.

	A	B	C
(A)	SER	Lysosomes	Golgi bodies
(B)	PER	Golgi bodies	Middle lamella
(C)	SER	Golgi bodies	Middle lamella
(D)	Golgi bodies	Lysosomes	SER

26. Select the incorrect statement w.r.t. fluid mosaic model of plasma membrane:
(A) Integral proteins are partially or totally buried in the membrane.
(B) The non-polar tail of unsaturated hydrocarbons is protected from the aqueous environment.
(C) Removal of transmembrane protein requires crude methods of treatments like detergents.
(D) The polar heads of the lipid are directed towards the inner part of the membrane.

27. Enzymes of lysosomes are
(A) Active at neutral pH
(B) Active at acidic pH
(C) Active at high pH
(D) Active at basic pH

28. The proteins that will function outside the cytoplasm are made by
(A) Golgi apparatus
(B) Ribosomes on RER
(C) 70S ribosomes in mitochondria and plastids
(D) Nucleolus

29. Of the following structure of a plant cell, the one that most often has the greatest volume is
(A) Vacuole (B) Lysosome
(C) Glyoxysome (D) Ribosome

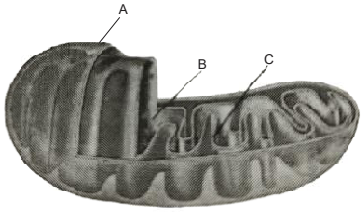
30. Some ions are transported across the membrane against their concentration gradient by using ATP. Such process is called
(A) Active transport
(B) Passive transport
(C) Osmosis
(D) Diffusion

31. Packaging of substances for export from cell occurs in
(A) SER (B) RER
(C) Golgi apparatus (D) Vacuoles

32. Cell wall is
A. A nonliving, rigid structure that surrounds the plasma membrane of plant and animal cells.
B. Fungal cell wall is made up of chitin.
(A) Only A is correct
(B) Only B is correct
(C) (A) and (B) are correct
(D) Bath (A) and (B) are incorrect

33. Read the following features of a cell organelle:
(I) Requires specific vital stain to be viewed under the microscopes.
(II) Shows great variability in the form of their number, shape and size.
(III) Typically sausage shaped or cylindrical.
(IV) Involved in oxidative phosphorylation.
Identify the organelle on the basis of above features:
(A) Chloroplast (B) Peroxysome
(C) Mitochondria (D) Leucoplasts

34. Identify the structure labelled as A, B and C in the given figure.



	A	B	C
(A)	Inver membrane	Matrix	Cristae
(B)	Outer membrane	Matrix	Cristae
(C)	Outer membrane	Inner membrane	Matrix
(D)	Outer membrane	Cristae	Thylakoid

35. How many microtubule fibrils are present in flagella of eukaryotic cells?
(A) 27 (B) 20 (C) 18 (D) 54

(SECTION-B)

36. Ribosomes are composed of
(A) DNA and RNA
(B) DNA and Proteins
(C) RNA and Proteins
(D) RNA and Phospholipids

37. Majority of chloroplast in the green plants are
(A) Mesophyll cells of leaves
(B) Bundle sheath cells of leaves
(C) Mid rib
(D) Adaxial epidermal cells

38. How many of the given features are associated with both mitochondria and chloroplast?
70S Ribosomes, Double membrane, thylakoid linear DNA, Cristae, Oxysome, Phosphorylation
(A) Three (B) Five
(C) Four (D) Two

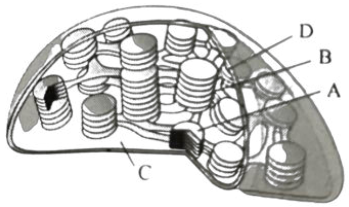
39. Centrioles are found in all given organisms, except
(A) Algae (B) Fungi
(C) Animals (D) Higher plants

40. Matrix of mitochondria contains
(A) Enzymes for formation of ATP
(B) Single double-stranded circular DNA
(C) 80S ribosomes
(D) All of these

41. The site of photophosphorylation is
(A) Stroma of chloroplast
(B) Mitochondrial matrix
(C) Thylakoid membrane
(D) Oxysome of mitochondria

42. Which of the following feature is not similar in mitochondria and chloroplast?
(A) Semiautonomous in nature
(B) Synthesis of ATP
(C) Presence of ds circular DNA and ribosomes
(D) Elementary particles on cristae

43. The figure given below shows the structure of a chloroplast with its four parts labelled as A, B, C and D. Select the part incorrectly matched with its function.



(A) A: Thylakoid – contains chlorophyll pigment in its membrane
(B) B: Granum-site of light independent phase
(C) C: Stroma– contains enzymes required for synthesis of carbohydrates and proteins
(D) D: Inner membrane-Relatively less permeable than outer membrane

44. In 70S and 80S ribosomes, 'S' as a unit stands for
(A) Svedberg's unit
(B) Sedimentation coefficient
(C) Smaller subunit
(D) More than one option is correct

45. The cytoskeleton is a proteinaceous network the cytoplasm involved in
(A) Mechanical support
(B) Motility
(C) Maintenance of the cell shape
(D) All of these

46. An organelle with an internal cross section showing characteristic (9+2) morphology is
(A) Centriole
(B) Prokaryotic flagella
(C) Eukaryotic flagella and cilia
(D) Both (A) and (C)

47. The cellular component at the base of each cilium or flagellum is
(A) Axoneme (B) Basal body
(C) Nucleus (D) Centromere

48. Microbodies are
(A) Present in only animal cells
(B) Membrane-bound minute vesicles
(C) Self-duplicating organelles
(D) Semiautonomous organelles

49. Lightly stained region of chromatin during interphase is
(A) Highly condensed region
(B) Transcriptionally active
(C) Rich in densely packed DNA
(D) More than one option is correct

50. Which of the following part is incorrectly matched:
(A) Nucleolus Non-membranous part of nucleus and site of rRNA synthesis
(B) Centromere Structure which provides shape to chromosome
(C) Heterochromatin Rich in loosely packed DNA
(D) Sub-metacentric chromosome L-shaped chromosom.