



NDA – Biology Practice Sheet

Topic - Cell Fundamental

1. Which of the following contain enzymes for cellular respiration?
(a) Dictyosomes
(b) Endoplasmic reticulum
(c) Lysosomes
(d) Mitochondria
Answer. (d)
2. Which one among the following cell organelles is semi-permeable?
(a) Cell membrane
(b) Plasma Membrane
(c) Cell wall
(d) Nucleus
Answer. (d)
3. Which one among the following nutrients is a structural component of the cell wall of plants?
(a) Manganese
(b) Potassium
(c) Phosphorus
(d) Calcium
Answer. (d)
4. Which of the following groups is present in animal cells?
(a) Mitochondria, Cell membrane, Cell wall, Cytoplasm
(b) Chloroplasts, Cytoplasm, Vacuole, Nucleus
(c) Nucleus, Cell membrane, Mitochondria, cytoplasm
(d) Vacuole, Cell membrane, Nucleus, Mitochondria
Answer. (c)
5. Cells which take part in secondary growth are named as
(a) Cholesterol
(b) Glycolipids
(c) Cambium
(d) Medullary ray
Answer. (c)
6. Which one of the following is not a constituent of cell membrane?
(a) Cholesterol
(b) Glycolipids
(c) Proline
(d) Phospholipids
Answer. (c)
7. The replication of DNA is a pre-requisite for a eukaryotic cell to undergo division. During the cell cycle, the DNA replicates in
(a) S-phase
(b) G_1 -phase
(c) G_2 -phase
(d) M-Phase
Answer. (a)
8. During which stage of mitosis does cytokinesis usually occur in animals?
(a) Prophase
(b) Metaphase
(c) Anaphase
(d) Telophase
Answer. (d)
9. Lysosome arises from
(a) Endoplasmic reticulum
(b) Golgi apparatus
(c) Nucleus
(d) Mitochondria
Answer. (b)
10. The correct sequence of cell cycle is
(a) S, G_1 , G_2 , M
(b) S, M, G_1 , G_2
(c) G_1 , S, G_2 , M
(d) M, G_1 , G_2 , S
Answer. (c)
11. Biological membrane are composed of
(a) 40% proteins and 60% lipids
(b) 50% proteins and 50% lipids
(c) 70% proteins and 30% lipids
(d) 60% proteins and 40% lipids
Answer. (d)
12. F_1 particles/oxysome / elementary particles are present in
(a) Division of nucleus without chromosomal division
(b) Division of chromosome without nuclear division
(c) Division of cytoplasm
(d) None of these
Answer. (c)
13. "Endomitosis" refers to
(a) Division of nucleus without chromosomal division
(b) Division of chromosomes without nuclear division
(c) Division of cytoplasm
(d) None of these
Answer. (b)
14. When the concentration of water and solutes on either side of the cell membrane is same, the solution is said to be
(a) Hypertonic
(b) Isotonic
(c) Hypotonic
(d) None of these
Answer. (b)
15. The function of nucleolus is the synthesis of
(a) DNA
(b) m-RNA
(c) r-RNA
(d) t-RNA
Answer. (c)
16. Mesosome is a bacterial cell is
(a) Plasmid
(b) Connection between two cells
(c) Plasma membrane infolded for respiration
(d) None of these
Answer. (c)
17. In living cells synthesis of ribonucleic acid (RNA) takes place in:
(a) Cytoplasm
(b) Nucleus
(c) Golgi body
(d) Nephron
Answer. (b)
18. The cell organelle storing substances like starch, oil and proteins is
(a) Vacuole
(b) Lysosome
(c) Plastid
(d) Golgi body
Answer. (c)

19. Organisms lacking nuclear membrane and cell organelles is called as:

- (a) Prokaryotes (b) Eukaryotes
(c) Protozoa (d) Virus

Answer. (a)

20. Cell organelles that are involved in the waste disposal system of the cell are:

- (a) Golgi apparatus (b) Lysosomes
(c) Chromosomes (d) Ribosomes

Answer. (b)

21. Which one of the following is an organelle that is NOT found in prokaryotic cells?

- (a) Cell wall (b) Mitochondria
(c) Plasma membrane (d) Ribosome

Answer. (b)

22. Which one of the following cell organelles mainly function as storehouse of digestive enzymes?

- (a) Desmosome (b) Ribosome
(c) Lysosome (d) Vacuoles

Answer. (c)

23. Cell wall of any fungus is different from plants in having

- (a) Cellulose (b) Chitin
(c) Nucleolus (d) Nucleosome

Answer. (b)

24. In prokaryotic organisms, nuclear region is not surrounded by a membrane. This undefined nuclear region is known as?

- (a) Nucleic acid (b) Nucleoid
(c) Nucleolus (d) Nucleosome

Answer. (b)

25. Which one of the following functions is carried out by smooth endoplasmic reticulum?

- (a) Transport of materials
(b) Synthesis of lipid
(c) Synthesis of protein
(d) Synthesis of steroid hormone

Answer. (c)

26. Which of the following is the cellular respiratory centre?

- (a) Nucleus (b) Mitochondria
(c) Ribosome (d) Golgi body

Answer. (b)

27. Which one of the following cell organelles contains DNA?

- (a) Golgi apparatus
(b) Mitochondria
(c) Lysosome
(d) Endoplasmic reticulum

Answer. (b)

28. Movement of materials to different parts of cytoplasm and nucleus is generally carried out by?

- (a) Ribosomes
(b) Mitochondria
(c) Lysosomes
(d) Endoplasmic reticulum

Answer. (d)

29. In mitochondria, ATP synthesizing chemical reactions take place in the

- (a) Outer membrane
(b) Matrix
(c) Inner membrane

(d) DNA of mitochondria

Answer. (c)

30. Cell wall is not present in cells of

- (a) Bacteria (b) Plants
(c) Fungi (d) Humans

Answer. (d)

31. Which cell organelles have their own DNA and Ribosomes?

- (a) Golgi body and Endoplasmic Reticulum
(b) Mitochondria and Plastids
(c) Lysosomes and Golgi body
(d) Vacuole and Plastids

Answer. (b)

32. Osmosis is the process of movement of water molecules from its

- (a) Higher concentration to its lower concentration through a cell wall
(b) Lower concentration to its higher concentration through a fully permeable membrane
(c) Higher concentration to its lower concentration through a fully permeable membrane
(d) Higher concentration to its lower concentration through a semi-permeable membrane

Answer. (d)

33. Cell were first discovered by

- (a) Robert Hooke (b) Leeuwenhoek
(c) Purkinje (d) Virchow

Answer. (a)

34. The plasma membrane is

- (a) Permeable (b) Impermeable
(c) Selectively permeable (d) Both (a) and (b)

Answer. (c)

35. Nuclear material without cover is found in

- (a) Mycoplasma and green algae
(b) Bacteria and fungi
(c) Bacteria and blue green algae
(d) None of these

Answer. (c)

36. The word 'prokaryote' means a cell

- (a) With many nuclei
(b) With one nucleus
(c) With diffused nucleus
(d) Without chloroplast

Answer. (c)

37. Minute structure on bacterial cell are called

- (a) Hair (b) Cilia
(c) Flagella (d) Pili

Answer. (d)

38. Cell theory was proposed by

- (a) Schleiden and Schwann
(b) Robert Brown
(c) Leeuwenhoek
(d) Purkinje

Answer. (a)

39. The underfined nuclear region in a bacteria is

- (a) Nucleoid (b) Nucleus
(c) Chromosome (d) Nucleolus

Answer. (a)

40. Nucleus plays a crucial part in

- (a) Metabolism
(b) Cellular reproduction
(c) Plasma membrane

(d) Nuclear membrane

Answer. (b)

41. Which of the following is not present in prokaryotes?

- (a) Ribosomes (b) Cell wall
(c) Plasma membrane (d) Nuclear membrane

Answer. (d)

42. Chemical nature of carrier molecules facilitating transport across plasma membrane is

- (a) Starchy (b) Sugary
(c) Proteinaceous (d) Fatty acid

Answer. (c)

43. ER remains associated with

- (a) Dictyosomes (b) Mitochondria
(c) Karyotheca (d) Chloroplast

Answer. (c)

44. Vacuole is surrounded by

- (a) Plasmalemma (b) Cell wall
(c) Tonoplast (d) Plasmodesmata

Answer. (c)

45. The organisms that lack membrane are

- (a) Viruses (b) Bacteria
(c) Protozoans (d) Fungi

Answer. (a)

46. The organelle attached to the rough ER is

- (a) Ribosomes (b) Lysosomes
(c) Golgi bodies (d) Proteins

Answer. (a)

47. Golgi bodies help in

- (a) Excretion of steroids (b) Storage and secretion
(c) Translation (d) Transcription

Answer. (b)

48. According to fluid mosaic model plasma membrane is composed of

- (a) Phospholipids, extrinsic and intrinsic proteins
(b) Phospholipids and oligosaccharides
(c) Phospholipids and hemicellulose
(d) Phospholipids and internal glycoproteins

Answer. (a)

49. The presence of organelle is only revealed by electron microscope.

- (a) Chloroplast (b) Mitochondria
(c) Golgi bodies (d) Lysosome

Answer. (d)

50. One of these is the smallest in size

- (a) Ribosome (b) Lysosomes
(c) Mitochondria (d) Chloroplast

Answer. (a)

51. The SER helps in building the cell membrane. This process is called

- (a) Lysosome (b) Vacuoles

(c) Plastids

(d) Mitochondria

Answer. (c)

52. Golgi apparatus is involved in the formation of

- (a) Lysosome (b) Vacuoles
(c) Plastids (d) Mitochondria

Answer. (a)

53. DNA is a component of

- (a) Mitochondria (b) Chloroplast
(c) Cytoplasm (d) (a) and (b) both

Answer. (d)

54. One of these is double membrane organelle

- (a) Lysosome
(b) Mitochondria
(c) Nucleus
(d) Endoplasmic reticulum

Answer. (b)

55. The cell organelle containing the flattened membrane bounded cisternae are located near the nucleus is

- (a) Mitochondria (b) Golgi
(c) Centrioles (d) Nucleolus

Answer. (b)

56. The entry of mineral ions in a plant cell during absorption is by

- (a) Passive absorption (b) Active absorption
(c) Osmosis (d) Endocytosis

Answer. (b)

57. The suicide bags of the cells are

- (a) Plastids (b) Mitochondria
(c) Lysosomes (d) Ribosomes

Answer. (c)

58. The power houses of the cells are

- (a) Mitochondria (b) Plastids
(c) Golgi complex (d) Ribosomes

Answer. (a)

59. Vesicles are essential for the normal functioning of the Golgi apparatus because

- (a) They provide energy for chemical reactions.
(b) They move proteins and lipids between different parts of the organelle
(c) They contribute to the structural integrity of the organelle
(d) They produce the sugars that are added to proteins

Answer. (b)

60. Amino acid chains built by the ribosomes then move to the

- (a) Golgi apparatus (b) Lysosome
(c) Endoplasmic reticulum (d) Mitochondria

Answer. (c)