

Department of Biotechnology

1st Year I sem

Question Bank

1. What is a cell?

- a) smallest and advanced unit of life
- b) smallest and basic unit of life
- c) largest and basic unit of life
- d) largest and advanced unit of life

2. Which of the following is a functional unit of a body?

- a) Mitochondria
- b) Cytoplasm
- c) Spleen
- d) Cell

3. What is cell biology?

- a) Study of cell division only
- b) Study of cancerous cell
- c) Study of cell structure and function
- d) Study of metaphase of a cell

4. Which of the following is used by cells to interact with other cells?

- a) Cell tubules
- b) Cell junctions
- c) Cell adhesions

d) Cell detectors

5. In which of the following type of cells the cell junction is abundant?

a) Cardiac cells

b) Prokaryotic cells

c) Hepatic cells

d) Epithelial cells

6. What is epithelial mesenchymal transistion?

a) Loss of migration and gain of adhesion

b) Formation of mesenchymal cells

c) Loss of adhesion and gain of migration

d) Lysis of cell

7. In which of the following type of cells the Gap junctions are absent?

a) Sperm cells

b) Brain cells

c) Reproductive cells

d) Cardiac cells

8. In which of the following type of cells Sarcoplasmic reticulum is found?

a) muscle cells

b) liver cells

c) kidney cells

d) neurons

9. Which of the following are phagocytic cells?

- a) neutrophils, mast cells
- b) mast cells, macrophages
- c) mast cells, antibodies
- d) neutrophils, macrophages

10. Which of the following is known as the powerhouse of a cell?

- a) Mitochondria
- b) Cytoplasm
- c) Lysosome
- d) Nuclei

11. Which of the following is known as the suicide bag of a cell?

- a) Mitochondria
- b) Golgi Complex
- c) Lysosome
- d) Nuclei

12. Lysosomes are produced by which of the following cell organelles?

- a) Mitochondria
- b) Endoplasmic Reticulum
- c) Golgi Complex
- d) DNA

13. Which of the following cell organelle is responsible for transporting, modifying, and packaging proteins and lipids?

- a) Mitochondria
- b) Endoplasmic Reticulum
- c) Golgi Complex
- d) DNA

14. Which of the following cell doesn't contain a cell wall?

- a) Plant cell
- b) Bacteria
- c) Fungi
- d) Animal cell

15. Who is the father of cell biology?

- a) George N. Papanicolaou
- b) George Emil Palade
- c) Robert Hooke
- d) None of the above

16. DNA is stored in which of the following cell organelle?

- a) Cell wall
- b) Cell Membrane
- c) Nucleus
- d) Cytoplasm

17. In which of the following cell nucleus is not present?

- a) Eukaryotic cell

- b) Prokaryotic cell
- c) Both of the above
- d) None of the above

18. Which of the following organisms doesn't have a cell?

- a) Virus
- b) Bacteria
- c) Fungi
- d) Algae

19. Who proposed the cell theory?

- a) Theodor Schwann, Watson and Robert Hooke
- b) Theodor Schwann, Matthias Schleiden and Robert Hooke
- c) Theodor Schwann, Matthias Schleiden and Rudolf Virchow
- d) Theodor Schwann, Rudolf Virchow and Robert Hooke

20. RNA is present in which of the following cell organelles?

- a) Cell wall
- b) Ribosome
- c) Nucleus
- d) Cytoplasm
- d) Golgi complex

Answer: b

Explanation: Ribosomes are tiny organelles that contain RNA and specific proteins within the cytoplasm.

21. A cell organelle that is present in animal cells but not present in plant cells is?

- a) Cytoplasm
- b) Centrosome
- c) Mitochondrial
- d) Cytoplasm
- d) Golgi complex

22. Which of the following cell is found in the brain?

- a) Neuron
- b) Hepatocyte
- c) Nephron
- d) Epithelial cell

23. Protein synthesis takes place in which of the following cell organelle?

- a) Cell wall
- b) Ribosome
- c) Nucleus
- d) Cytoplasm

24. Which of the following cells are found in the intestinal lining?

- a) RBCs
- b) Neurons
- c) Epithelial cells
- d) Hepatocytes

25. Which of the following polysaccharide is not present in the eukaryotic plant cell wall?

- a) Chitin
- b) Hemicellulose
- c) Pectin
- d) Cellulose

26. Which of the following is the process of synthesis of glucose?

- a) saccharification
- b) glycolysis
- c) gluconeogenesis
- d) neogenesis

27. Which of the following site is represented by Loops in lampbrush chromosomes?

- a) Crossing over
- b) Cell division
- c) Replication
- d) Transcription

28. Which of the following part of a neuron receives information from other neurons?

- a) myelin sheath
- b) dendrites
- c) cell body
- d) axon

29. Which of the following is not a component of cell membranes?

- a) Phosphotriglycerides
- b) Cholesterol
- c) Sphingolipids
- d) Phosphodiglycerides

30. Which of the following promote curvature of cell membrane?

- a) Phosphatidyl serine (PS)
- b) Phosphatidyl inositol(PI)
- c) Phosphatidyl choline (PC)
- d) Phosphatidyl ethanolamine (PE)

31. Which of the following is not a type of chromosomal aberration?

- a) duplication
- b) translocation
- c) mutations
- d) inversion

32. Which of the following cells release insulin when glucose levels elevate in the body?

- a) gamma cells
- b) beta cells
- c) alpha cells
- d) zeta cells

[View Answer](#)

33. Which of the following cells are pluripotent?

- a) embryonic stem cells
- b) nucleosomes
- c) hepatocytes
- d) neurons

34. Which of the following cells do not lack the ability to divide?

- a) red blood cells
- b) muscle cells
- c) skin cells
- d) nerve cells

35. Which of the following cells do not usually divide but can be induced to divide?

- a) liver cells
- b) red blood cells
- c) hair cells
- d) hair follicles

36) Apoptosis is a

- a) cell division
- b) cell differentiation
- c) programmed cell death
- d) cell growth

37) This cell organelle participates actively in animal apoptosis

- (a) nucleus
- (b) vacuoles

(c) mitochondria

(d) chloroplast

38) This cannot be killed by apoptosis

(a) immune cells

(b) cells with DNA damage

(c) cancer cells

(d) a cell infected with viruses

39) This characterizes ageing

(a) increase in the consumption of oxygen

(b) increased anabolism

(c) increased metabolic activity

(d) a decrease in the metabolic activity

40) The study of aging is called

A) gerontology

B) histology

C) physiology

D) anthropology

