

*Chapter 2*

 The Cell

(Why is brain placed higher than heart? It is to keep brilliance of brain higher than heart…!)



* The scientific study of cell is called:

a) biology b) cytology

c) histology d) genetics

* The first cell was discovered in the:

a) Animals b) Plants

c) fungi d) cork

* Cell and nucleus were discovered by \_\_\_\_ and \_\_\_\_ respectively.

a) Schwann, Schlieden

b) Robert Hook, Galileo

c) Robert Hook, Robert Brown

d) R. Virchow, Robert Hook

* Cell and nucleus were discovered in\_\_\_\_ and \_\_\_\_\_ respectively.

a) 1610, 1665 b) 1665, 1710

c) 1665, 1831 d) 1765, 1831

* It is not found in the cells of humans, lions and sparrows:

a) nucleus b) cell membrane

c) cytoplasm d) cell wall

* Fugal cell wall is mainly consist of:

a) cellulose b) chitin

c) amino acid, sugar and chitin

d) A.O.T

* All are the postulates of cell theory except:

a) all organisms are composed of cells

b) cell is the basic structural and functional unit of life

c) cells can arise from non-living source

d) cells only arise from pre-existing cells

* All are the properties of cell wall except:

a) found in plants cells

b) has three layers

c) maintains the shape of cell

d) is selectively permeable

* The animal cell without cell membrane is called:

a) protoplasm b) protoplast

c) cytoplasm d) N.O.T

* The layer of cell wall found between two adjacent cells is called:

a) primary wall b) secondary wall

c) tertiary wall d) middle lamellae

* The fluid mosaic model was proposed by Singer and Nicolson in:

a) 1869 b) 1969

c) 1872 d) 1972

* Cell membrane is consist of:

a) proteins + nucleic acids

b) proteins + phospholipids

c) phospholipids + nucleic acids

d) amino acids, sugar and chitin

* Nucleus is filled with a gel like material called:

a) nuclear gel b) chromatin network

c) nucleoplasm d) nucleolus

* Find the incorrect statement about nuclear membrane:

a) it is a double layered membrane

b) it covers nucleus in all organisms

c) it has pores

d) N.O.T

* Chromosomes are composed of:

a) proteins & phospholipids

b) proteins & RNA

c) proteins & DNA

d) DNA & RNA

* Regarding the nucleus all are true except:

a) it is always covered by nuclear membrane

b) it communicates with cytoplasm

c) it controls all the activities of cell

d) it contains genetic material

* The main metabolic reactions of cell take place in:

a) nucleus b) cytoplasm

c) cell membrane d) cell wall

* The number of chromosomes in humans is:

a) 23 pair b) 26 pair

c) 46 pair d) 48 pair

* The fluid portion of cytoplasm is called:

a) cytosol b) cyclosis

c) inclusions d) N.O.T

* Protein synthesis takes place in:

a) nucleus b) cytoplasm

c) cell membrane d) cell wall

* The respiration in bacteria occurs at the level of:

a) mitochondria b) ribosomes

c) E.R d) N.O.T

* Find the incorrect statement about mitosis:

a) it produces two daughter cells

b) the daughter cells contain half no. of chromosomes

c) it takes place in all body except germ cell

d) N.O.T

* In which phase of cell division the centromere divides and the chromatids move to the opposite pole:

a) prophase b) metaphase

c) anaphase d) telophase

* Questions 24 - 40
* Select from the terms below

A) True B) False

* Cell is the structural but not the functional unit of life:
* Galileo was not a biologist but a physicist and astronomist:
* All the cell structures of all cells are living:
* Resolution means to enlarge the size of the image
* All the cells have always constant shape
* All the activities of life take place within cell
* Cell wall is a non living structure
* Cell wall is always composed of cellulose
* The fluid mosaic model describes cell wall
* Cell membrane can repair itself
* All the molecules can easily pass through cell membrane
* Water can not pass through cell wall
* Endocytocis can take place within cell wall
* Chromosomes can be seen every time in the cell
* The majority of microorganisms have prokaryotic cell
* Prokaryotic cells are smaller in size than eukaryotic cells.
* Ribosomes are always found free in the prokaryotic cell.
* Questions 41 – 50
* Select from the terms below:

A) Mitochondria B) Golgi complex

C) Endoplasmic Reticulum

D) Riobosomes E) Vacuole

F) Chloroplast G) Chromoplast

H) Centriole I) N.O.T

* It is known as power house of cell
* It is known as kitchen of cell
* It is known as protein factory
* It is covered by tonoplast
* It is involved in the cell division
* It possesses various colors except green:
* It is present in the underground parts of plant like roots
* It is a network of tubules extending from nuclear membrane to cell membrane:
* It is a rounded structure present near the nucleus in the animal cell:
* Its inner membrane is folded called cristae:

Answer Key

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| --- | --- | --- | --- | --- | --- |
| 1 | B | 2 | D | 3 | C |
| 4 | C | 5 | D | 6 | B |
| 7 | C | 8 | C | 9 | A |
| 10 | D | 11 | C | 12 | B |
| 13 | C | 14 | B | 15 | C |
| 16 | A | 17 | B | 18 | A |
| 19 | B | 20 | B | 21 | D |
| 22 | B | 23 | C | 24 | B |
| 25 | A | 26 | B | 27 | B |
| 28 | B | 29 | A | 30 | A |
| 31 | B | 32 | B | 33 | A |
| 34 | B | 35 | B | 36 | B |
| 37 | B | 38 | B | 39 | A |
| 40 | A | 41 | A | 42 | F |
| 43 | D | 44 | E | 45 | H |
| 46 | G | 47 | I | 48 | C |
| 49 | I | 50 | A |  |  |

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