TEST BIOLOGY
CH#4 (THE CELL)

1: The living cell was discovered by :
A) Robert Hook
B) Robert brown
C) Galileo
D) Both a & b
E) N.O.T

2: Galileo was :
A) Astronomer
B) Physicist
C) Biologist
D) both a & b
E) A.O.T

3: One Cubic inch of cork contain
A) 10^{12} cells
B) 10^{9} cells
C) 10^{13} cells
D) 10^{8} cells
E) N.O.T

4: Optical lenses were first developed by:
A) David & Jansen
B) Galileo
C) Robert Brown
D) Robert Hook
E) N.O.T

5: Robert Brown discovered nucleus in the cells of cork :
A) True
B) False
C) Either of them
D) N.O.T

6: One bottle of blood contain :
A) 5.4×10^{12} cells
B) 5.4×10^{9} cells
C) 5.4×10^{13} cells
D) 5.4×10^{8} cells
E) N.O.T

7: Rudolf Virchow was :
A) Pathologist
B) Zoologist
C) Botanist
D) A.O.T
E) N.O.T

8: _____ brought great revolution in field of biology :
A) Discovery of cell
B) Cell theory
C) Discovery of cell organells
D) A.O.T

E) N.O.T
9: On the basis of magnification, microscope is divided into :
1) Light microscope
2) X ray microscope
3) Electron microscope
A) 1 & 2
B) 1 &3
C) 1, 2 & 3
D) 2 & 3
E) N.O.T
10: Which of the following contain smallest cell :
A) Mycoplasma
B) Yeast
C) Cyanobacteria
D) Both a & c
E) All are of same size
11: Magnification of microscope can be calculated by :
A) Adding magnifying power of objective and power of eye piece
B) Subtracting magnifying power of objective by power of eye piece
C) Multiplying magnifying power of objective and power of eye piece
D) Dividing magnifying power of objective by power of eye piece
E) N.O.T
12: A new born baby contain :
A) 6×10^{12} cells
B) 6×10^{9} cells
C) 6×10^{13} cells
D) 6×10^{8} cells
E) N.O.T
13: Velocity required to settle down lysosome in the sediment :
A) 600 g
B) 6000 g
C) 15000 g
D) 100000 g
E) N.O.T
14: Which of the following are settle down in sediment at speed of 100,000 g :
1) Lysosome
2) Mitochondria
3) Ribosomes
4) SER
5) RER
A) 1,2 & 3
B) 3,4 & 5
C) 1 & 2
D) 3 & 5
E) A.O.T
15: In prokaryotic cell :
A) DNA is associated with histone
B) DNA is not associated with histone
C) DNA is some time associated and some time dissociated with histone
D) DNA is associated with histone in nucleoid
E) N.O.T

16: With _____ specimen could quite easily be modified by 10,000 × :
A) Light microscope
B) X ray microscope
C) Electron microscope
D) Both a & b
E) N.O.T
17: It is absent from plasma membrane of most bacterial cell :
A) Carbohydrates
B) Proteins
C) Cholesterol
D) Both b & c
E) N.O.T
18: It is responsible for nitrogen fixation in prokaryotes :
A) Mesosomes
B) Flagella
C) Cell wall
D) Cytoplasm
E) N.O.T
19: Which of the following is correct about plasma membrane :
1) Non polar ends of lipids faces each other
2) Polar ends of lipids faces each other
3) Hydrophobic ends of lipids faces each other
4) Hydrophilic ends of lipids faces each other
5) Polar and non polar ends faces each other
6) Hydrophobic and hydrophillc ends faces each other
A) 1& 3
B) 1 & 4
C) 2 & 3
D) 2 & 4
E) 5 & 6
20: Which one of the following is the major advantage of using a light microscope instead of an electron microscope :
A) A superior resolving power
B) Constant depth of focus
C) Observation of living matter
D) Use of everything sections
E) It is low in cost &easily available
21: The lipid molecules present in cell membrane are in _____ state :
A) Fluid
B) Solid
C) Gaseous
D) Both b & c
E) N.O.T
22: Cell wall the non living component of cell is secreted by :
A) Living part of cell
B) Non living part of cell
C) It is not secreted by cell
D) Both a & b
E) N.O.T
23: The components of plasma membrane are :
A) Immobile

B) Mobile
C) Mobiloil
D) Both a &b
E) N.O.T
24: It is synthesize by Protoplast :
A) Primary wall
B) Secondary wall
C) Middle lamella
D) Cytoplasm
E) N.O.T
25: Transport across cell membrane is necessary to maintain :
A) Ph
B) Ionic concentration
C) Both a & b
D) N.O.T
26: The taken in of liquid by infolding is called :
A) Endocytosis
B) Phagocytosis
C) Pinocytosis
D) A.O.T
E) N.O.T
27: Lipid molecules in plasma membrane :
A) Can move laterally
B) Can move horizontally
C) Can move vertically
D) Cannot move
E) Can move any where
28: It is first product of cell :
A) Primary wall
B) Secondary wall
C) Middle lamella
D) Cytosol
E) N.O.T
29: Which of the following is directly incorporated within lipid bilayer :
A) Perpheral protein
B) Intrinsic protein
C) Both a & b
D) N.O.T
30: Middle lamella is composed of :
A) Cellulose , Hemicellulose , calcium and Magnecium Pectates
B) Cellulose & Hemicellulose
C) Calcium and Magnecium Pectates
D) N.O.T
31: Nuclear membrane is a complete barrier :
A) True
B) False
C) Either a or b
E) N.O.T
32: Primary wall is _____ in young cells and _____ in mature cells :
A) Elastic & thin , rigid and thick
B) Elastic & thick , rigid and thin

C) Elastic & thick , Elastic and thin
D) Rigid and thick , Rigid and thin
E) Neither elastic nor rigid
33: Nucleus is filled with _____ substances:
A) Nucleic acid rich
B) Protein rich
C) Carbohydrates rich
D) Lipid rich
E) N.O.T
34: In which of the following centromere is subterminal :
A) Telocentric
B) Acrocentric
C) Subtelocentric
D) Both b & c
E) A.O.T
35: Which of the following has upper layer hydrophilous :
A) Cell wall
B) Cell membrane
C) Both a &b
D) A.O.T
36: The seed hairs of gossipium are almost :
A) Cellulose
B) Starch
C) Chitin
D) Hemicellulose
E) N.O.T
37: Nuclear reticulum is made up of :
A) Nucleoplasm
B) Nucleic acid
C) Nucleoli
D) Proteins and lipids
E) N.O.T
38: Under light microscope cytoplasm appears as :
A) Fluid colloid
B) Semi fluid colloid
C) Complex colloid
D) Both b & c
E) N.O.T
39: There may be _____ nucleoli in nucleus :
A) 1
B) More than 1
C) 2
D) More than 2
E) N.O.T
40: Nuclear membrane is :
A) Semi permeable
B) Selectively permeable
C) Non permeable
D) Both a & b
E) N.O.T
41: It disappears during cell division :

A) Nucleus
B) Nucleolus
C) Chromosome
D) Chromatin Network
E) N.O.T
42: In plant cell, Nucleus is not present in center because :
A) It is less in weight than in animal cell and is easily pushes toward cell membrane by large vacuole.
B) It is greater in weight than in animal cell and is pushes toward cell membrane by large vacuole.
C) The large vacuole repels the nucleus.
D) Cell membrane attracts it.
E) N.O.T
43: Smooth Endoplasmic Reticulum is found in :
A) Adipose cells
B) Interstitial cells
C) Liver cells
D) Both a & c
E) A.O.T
44: Chondriosome appears as :
1) Minute granules
2) Rodulets
3) Strings
4) Vesicles
5) Threads
A) 1 & 4
B) 2, 3 & 5
C) 1, 2 ,3 & 5
D) 1, 2 ,3,4 & 5
E) Given arrangement is not correct
45: In Rough Endoplasmic reticulum ribosomes are _____ coated :
A) Heavily
B) Lightly
C) Some time lightly and some time heavily
D) Not
E) N.O.T
46: Which of the following organelle release Oxygen :
A) Chloroplast
B) Mitochondria
C) Ribosomes
D) Both a & b
E) N.O.T
47: Mitochondria is not present in sperm therefore mitochondria are passed to an animal by mother :
A) True
B) False
C) some time it is present and some time it is absent
D) N.O.T
48: The Golgi complex of lower vertebrates cells is usually termed as Dictyosome :
A) True
B) False

C) Either a or b
49: Mental retardation and death by age of two are consequences of :
A) Tay sach’s disease
B) Gaucher's disease
C) Krabbe's disease
D) Both a & c
E) N.O.T
50: Materials of cell wall and cell plate in plant cell are products of :
A) Golgi bodies
B) Endoplasmic reticulum
C) Plastids
D) Ribosomes
E) N.O.T
51: Proplastids occur in cells of :
A) Meristematic tissue
B) Schlerenchyma tissue
C) Parenchyma tissue
D) Both a &c
E) N.O.T
52: Peroxisome found in :
A) Plants
B) Animals
C) Both a & b
D) N.O.T
53: It is energy converting organelle :
A) Mitochondria
B) Chloroplast
C) ER
D) Both a & b
E) N.O.T
54: Which of the following don't assemble and disassemble :
A) Microfilament
B) Intermediate filament
C) Microtubules
D) A.O.T
E) N.O.T
55: Peroxisome within lever and kidney cells breakdown and detoxify fully,_____ of alcohol a person drink .
A) 100%
B) 50%
C) 25%
D) 75%
E) N.O.T
56: Changing shape of cell is function of :
A) Microfilament
B) Intermediate filament
C) Microtubules
D) A.O.T
E) N.O.T
57: Glyoxysomes found in :
1) Plants

2) Animals
3) Fat storing tissues
A) 1 & 2
B) 1 & 3
C) 2 & 3
D) 1, 2 & 3
E) N.O.T
58: Movement of pseudopodia occurs by :
A) Microfilament
B) Intermediate filament
C) Microtubules
D) A.O.T
E) N.O.T
59: Peroxisomes are specialized glyoxysomes :
A) True
B) False
C) Either a or b
D) N.O.T
60: Maintaining shape of cell is function of :
A) Microfilament
B) Intermediate filament
C) Microtubules
D) A.O.T
E) N.O.T
61: Chloroplast contain chlorophyll and its associated :
A) Protein
B) Lipid
C) Carbohydrates
D) Both a & b
E) A.O.T
62: Attachment of muscle is function of :
A) Microfilament
B) Intermediate filament
C) Microtubules
D) both a & b
E) N.O.T
63: The taken in of solids by infolding of cell wall :
A) Endocytosis
B) Phagocytosis
C) Pinocytosis
D) A.O.T
E) N.O.T

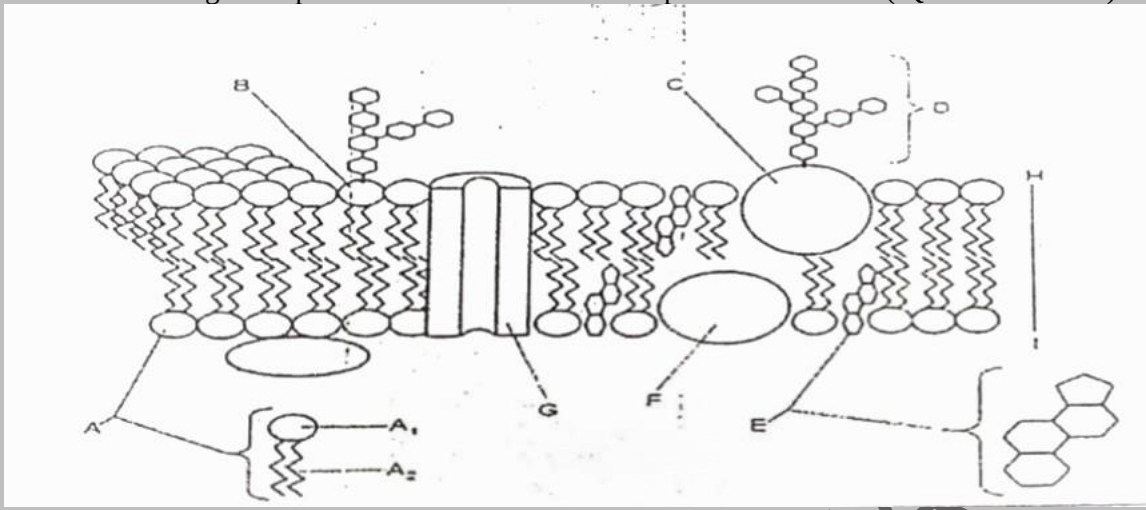
64: Support of nerve cells processes is function of :
A) Microfilament
B) Intermediate filament
C) Microtubules
D) Both a & c
E) N.O.T
65: Every microfilament contain myosin protein :
A) True

B) False
C) Either a or b
D) N.O.T
66: Lysosomes include :
1) Protease enzyme
2) Ribonuclease enzyme
3) Glycosidase enzyme
A) 1 & 2
B) 1 & 3
C) 2 & 3
D) 1 , 2 & 3
E) N.O.T
67: It is responsible for movement of chromosome during cell division :
A) Microfilament
B) Intermediate filament
C) Microtubules
D) Both a & c
E) N.O.T
68: Membrane bound organelles include all of the following, EXCEPT:
A) Mitochondria
B) Lysosomes
C) Peroxisomes
D) Centriole
E) Plastids
69: Movement of cillia and flagella are functions of :
A) Microfilament
B) Intermediate filament
C) Microtubules
D) Both a & c
E) N.O.T
70: Food vacuoles are _____ liquid filled cavity in cytoplasm :
A) Protoplasmic
B) Nonprotoplasmic
C) Both a & b
D) N.O.T
71: Division of cytoplasm is function of :
A) Microfilament
B) Intermediate filament
C) Microtubules
D) both a & c
E) N.O.T

72: The pancreas is an important organ that secretes both digestive enzymes and hormones. What organelle would you expect to find In higher concentration in the cells of this organ than in other cells
A) Rough ER
B) Smooth ER
C) Mitochondria
D) Golgi body
E) Lysosome
73: The taken in of liquids by infolding of cell wall :

A) Endocytosis
B) Phagocytosis
C) Pinocytosis
D) A.O.T
E) N.O.T
74: The protien present in microtubules is:
A) Actin
B) Myosin
C) Protomyosin
D) Tubulin
E) Both a & b
75: The plasma membrane and everything present within it is called:
A) Chlorplast
B) Protplast
C) Cytoplasm
D) Protoplasm
76: Movement of organelles outside the cytoplasm is function of :
A) Microfilament
B) Intermediate filament
C) Microtubules
D) Both a & c
E) N.O.T
77: Which of the following correctly listed the order in which cellular components will be found in the pellet
when homogenized cells are treated with increasingly rapid spins in a centrifuge :
A) nucleus, ribosomes, chloroplasts
B) ribosomes, nucleus, mitochondria
C) chloroplasts, ribosomes,vacuoles
D) vacuoles, ribosonmes, nucleus
E) nucleus, mitochondria, ribosomes
78: Which animal cell organelle contains enzymes that transfer hydrogen from various substrates to oxygen :
A) Mitochondria
B) Lysosome
C) Peroxisome
D) Glyoxysomes
E) Nucleus
79: Muscle Contraction is function of :
A) Microfilament
B) Intermediate filament
C) Microtubules
D) Both a & b
E) N.O.T
80: When a large proportion of a cell's ribosomes are attached to the endoplasmic reticulum, it is a sign that the cell is specialized to:
A) manufacture carbohydrates
B) manulacture nucleic acids
C) manufacture proteins
D) manufacture phospholipid
E) All of these

=>The below diagram represents fluid mosaic model of plasma membrane (Question 81 - 84)

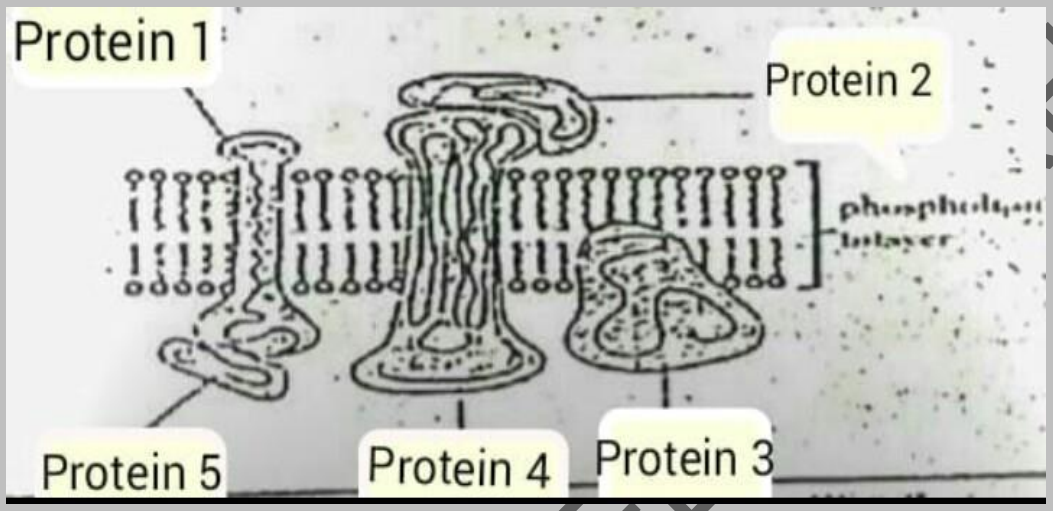


81: Glycolipid molecule is represented by:
A) labeled part-A
B) labeled part-B
C) labeled part-D
D) labeled part-E
E) N.O.T
82: The labeled part E represents :
A) Glycolipid
B) Phospholipid
C) Lipoprotein
D) Steroid
E) Glycoprotein
83: Protein channel is represented by :
A) labeled part - D
B) labeled part - C
C) labeled part - G
D) labeled part - F
E) labeled part - B
84: Phospholipid molecules are represented by :
A) labeled part - D
B) labeled part - E
C) labeled part - G
D) labeled part -A
E) labeled part – B
85: Find the correct one :

	COLUMN 1		COLUMN 2
A	ER	1	Stores genetic material
B	Leucoplast	2	Stores Calcium
C	Mitochondria	3	Stores starch
D	DNA	4	Stores Energy

A) a=1,b=3,c=2,d=4
B) a=2,b=3,c=4,d=1
C) a=3,b=2,c=4,d=1
D) a=4,b=3,c=1,d=2

E) a=1,b=2,c=3,d=4
86: _____ are produced by _____ :
A) RER , Nucleus
B) Golgi Bodies , RER
C) Ribisomes , RER
D) Golgi Bodies , Lysosomes
E) N.O.T
87: The diagram below shows the distribution of protein molecules on a cell membrane :

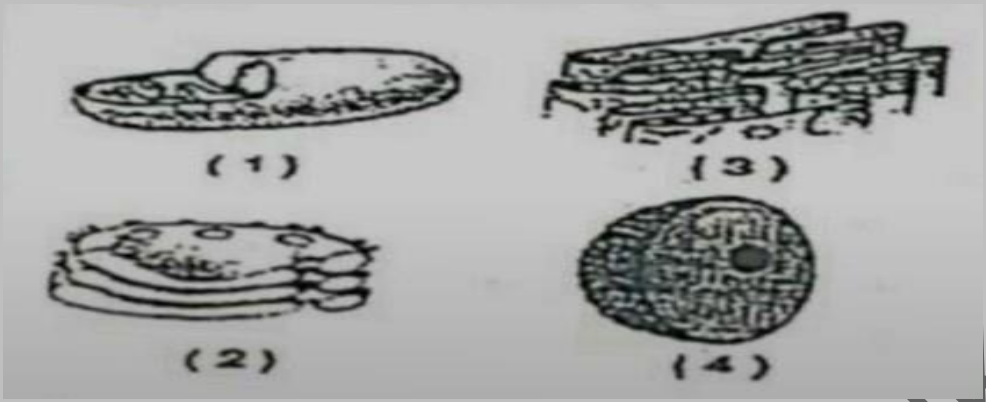


Which line in the table below correctly identifies peripheral and integral membrane protein :

OPTION	PERIPHERAL PROTEIN	INTEGRAL PROTEIN
A	5	2
B	1	5
C	3	4
D	2	1
E	5 & 3	2 & 4

88: Which one is odd regarding Prokaryotic cell :
A) Ribosome
B) Plasmids
C) Cell Wall
D) RER
E) N.O.T
89: Which organelles are responsible for protection against Hydrogen per oxide :
A) H_2O_2
B) Catalase
C) Peroxisomes
D) Lysosomes
E) Both b & c
90: Match Correctly :
A = ER
B = Golgi Bodies

C = Nucleus
D = Mitochondria



A) A=1, B=3, C=2, D=4
B) A=2, B=3, C=4, D=1
C) A=3, B=2, C=4, D=1
D) A=4, B=3, C=1, D=2
E) N.O.T

91: Golgi bodies are involved in
1) Packaging proteins into vesicles
2) Producing lysosome
3) Transporting proteins
4) Altering proteins
A) 1 & 2
B) 1 , 2 & 4
C) 1 , 2 & 3
D) 2 & 3
E) 1 , 2 , 3 & 4

92: If eye piece lens magnifies 10 times , What objective lens will give ×500 magnification :
A) × 0.5
B) × 5
C) × 50
D) × 500
E) Cannot predict

93: Find Correct row of answers by match in column I & II :

OPTION	COLUMN I	COLUMN II
A	Krabbe's disease	Blindness
B	Golgi bodies:Entry face	Cis face
C	Glyoxysome	Detoxification of H^2O^2
D	Microfilaments	Movement of cilia
E	Stroma	Light reaction

94: The organelles involved in preparation of substances needed by cell are :
1) Lysosome
2) SER
3) Ribosomes
4) RER
A) 1& 2
B) 2 & 3
C) 2, 3 & 4
D) 1, 2 & 3

E) 1 , 2 , 3 & 4

95: The conversion of fatty acids into sugar occurs by which organelle :

A) Peroxisome
B) Glyoxysome
C) Hydrolysis
D) Both b &c
E) N.O.T

96: Which organelle is attached with AER :

A) Agranulated organelle
B) Ribosome
C) Granulated organelle
D) Both b & c
E) N.O.T

97: In plasma membrane phospholipid molecules are arranged :

A) As mosaic of discontinuous particles
B) Like iceburg in sea
C) In two parallel lines
D) outside protein layer
E) Both a & c

98: Find correct row of answers :

OPTION	NUCLEUS	MITOCHONDRIA
A	Power house	Control center
B	Chromatin network	Grana
C	Control center	Store house
D	Nucleolus	Matrix
E	Matrix	Nucleoplasm
F	N.O.T	N.O.T

99: Liver cells detoxify harmful drugs as they contain a vast majority of :

A) Lysosome
B) Nuclei
C) AER
D) Vacuole
E) Both a &c

100: Some fresh rat's liver homogenized and the suspension subjected to differential centrifugation. The procedure is shown in the table overleaf :

TREATEMENT ***SEDIMENT***

800g for 10 mins ----------> Fraction 1

↓

Supernant

↓

2000g for 15 mins ----------> Fraction 2

↓

Supernant

↓

25000g for 15 mins ----------> Fraction 3

↓

Supernant

↓

105000g for 60 mins ----------> Fraction 4

(g = gravitational force)

Which one of the following represent order in which organelles were removed from the suspension :

OPTION	Fraction 1	Fraction 2	Fraction 3	Fraction 4
A	Mitochondria	Lysosome	Nuclei	Ribosome
B	Lysosome	Nuclei	Ribosome	Mitochondria
C	Mitochondria	Nuclei	Lysosome	Ribosome
D	Nuclei	Mitochondria	Lysosome	Ribosome