KIPS ENTRY TESTS PREPARATION

BIOLOGY NMDCAT

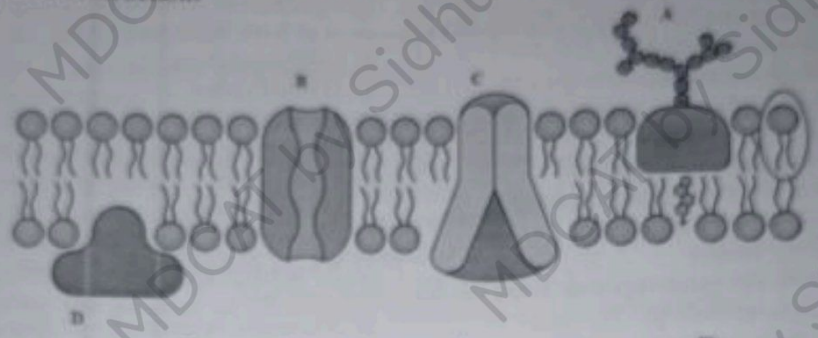
PMC TOPIC WISE TEST UNIT-1

TOPIC: Cell Structure and Function

Q.1 The transport of glucose across cell membrane under the influence of insulin is:

A. Diffusion
B. Facilated diffusion
C. Active transport
D. Passive transport

Q.2 It allows release of calcium from sarcoplasmic reticulum in skeletal myocytes to initiate contraction:



A. B. C. D.

Q.3 Microspore of garden pea contains how many chromosomes:

A. 14
B. 4
C. 7
D. 8

Q.4 A similarity among prokaryotic and eukaryotic cell membranes:

A. Receptors for catecholamine
B. Presence of respiratory enzymes
C. Fluidity regulation by cholesterol
D. Amphipathic phospholipids

Q.5 In plants and fungi, enzymatic hydrolysis is performed by:

A. Lysosomes
B. Ribosomes
C. Lytic vacuoles
D. Cell membrane

Q.6 What is common between cytoplasm of bacterial and human cell?

A. Storing place for glycogen
B. Cytoskeleton
C. Cisternae membranes
D. Site of Kreba cycle

Q.7 Higher number of modified forms of endoplasmic reticulum are present in:

A. Skin
B. Kidney cells
C. Stomach
D. Skeletal myocytes

Q.8 Ribosomes would not be attached with _____ in a living cell:

A. Golgi apparatus
B. Outer nuclear membrane
C. Cisterna membranes
D. Cell membrane

Q.9 During synthesis of RuBisCo, ribosomal subunit that binds with 1st aminoacyl-tRNA is:

A. 60S
B. 40S
C. 30S
D. 50S

Q.10 An enzyme that is not attached to any mitochondrial membrane:

A. Pyruvate decarboxylase
B. Succinic dehydrogenase
C. Cytochrome complex
D. F0-F1 complex

Q.11 Amyloplast stores:

A. Lipids
B. Carbohydrates
C. Nucleic acids
D. Proteins

Q.12 DNA polymerase enzyme would be absent in:

A. Hepatocytes
B. *E. coli*
C. Erythrocytes
D. Epidermis

Q.13 Which of the following are most abundant organic compounds in the cell membrane?
A. Carbohydrates
B. Lipids
C. Cholesterol
D. Proteins

Q.14 Survival of a cell is possible without all of the following except:
A. Plasma membrane
B. Nucleus
C. Mitochondria
D. Chloroplast

Q.15 Nucleolus is involved in:
A. Synthesis of tRNA
B. Synthesis of proteins
C. Synthesis of lipids
D. Synthesis of ribosomes

Q.16 Which of the following is the common function of both RER and SER?
A. Proteins synthesis
B. Lipid metabolism
C. Mechanical support to the cell
D. Detoxification

Q.17 Pick the odd one out with respect to number of membrane/s:
A. Golgi apparatus
B. Lysosomes
C. Endoplasmic Reticulum
D. Chloroplast

Q.18 Testosterone are produced from _____ of Leydig cells:
A. Mitochondria
B. Smooth endoplasmic reticulum
C. Golgi bodies
D. Rough endoplasmic reticulum

Q.19 Identify the incorrect pair from the following options:
A. DNA replication - Nucleus
B. Anaerobic respiration - Cristae
C. Protein synthesis - RER
D. Glycosylation - Golgi apparatus

Q.20 Glycosylation is done by:
A. Mitochondria
B. Peroxisome
C. Lysosome
D. Golgi apparatus

Q.21 The attachment of larger and smaller ribosomal subunits is controlled by:
A. Ca^{+2}
B. Mg^{+2}
C. Na^{+}
D. Fe^{+2}

Q.22 Lysosomal enzymes are synthesized on/in:
A. Golgi complex
B. Cytoplasm
C. RER
D. SER

Q.23 Trace the secretory route of pepsinogen through zymogen cells of stomach:
A. RER→ SER→ Golgi apparatus→ Golgi vesicles
B. RER → SER → Secretory vesicles → Golgi apparatus
C. SER → RER → Golgi apparatus → Secretory vesicles
D. RER → Golgi apparatus → Secretory vesicles → SER

Q.24 Macrophage contain higher numbers of:
A. Glyoxisomes
B. Lysosomes
C. Microbodies
D. Peroxisomes

Q.25 Tay-Sach's disease characterized by the malfunctioning of:
A. Nucleases
B. Carbohydrases
C. Proteases
D. Lipases

Q.26 It is large, central in plant cells, single membranous organelle associated with turgor pressure:
A. Nucleus
B. Chloroplast
C. Vacuole
D. Mitochondria

Q.27 Calvin cycle occurs in _____ of chloroplast:
A. Matrix
B. Stroma
C. Grana
D. Thylakoid

Q.28 All of the following are similarities between chloroplast and mitochondria except:
A. Self-replicating
B. ATP synthesis
C. Aerobic respiration
D. 70S ribosomes

Q.29 It is incorrect about chloroplast:
A. CO_2 fixation occurs in stroma
B. Circular DNA
C. Starch synthesis
D. Photophosphorylation

Q.30 Nucleus is invisible during all of the following stages except:
A. Interphase
B. Metaphase
C. Mitotic phase
D. Anaphase

Q.31 All of the following are present in central fibril area of the nucleolus except:
A. rDNA
B. rRNA
C. Proteins
D. Ribosomal subunits

Q.32 It is responsible to separate nucleoplasm from that of cytoplasm:
A. Plasma membrane
B. Nuclear envelope
C. Golgi apparatus
D. Endoplasmic reticulum

Q.33 All of the following processes occur in nucleus except:
A. Translation
B. Transcription
C. Replication
D. Ribosome synthesis

Q.34 Type of plastids that help in pollination:
A. Chloroplasts
B. Leucoplasts
C. Chromoplasts
D. Etioplast

Q.35 Which of the following is not correct about ribosomes:
A. 60S is larger subunit in the eukaryotic cells
B. 50S is larger subunit in the prokaryotic cells
C. Ribosomes are factories of protein synthesis
D. Ribosomal proteins catalyze peptide bond synthesis

Q.36 During the process of translation ribosomes are attached with_____ end of mRNA:
A. 3'
B. 2'
C. 5'
D. 1'

Q.37 The entire cell wall of bacterial cell is often considered as single molecule or molecular complex is known as:
A. Peptidoglycan
B. Murein
C. Actin
D. Sacculus

Q.38 All of the followings are having enzymes for chemiosmosis except:
A. Plant cell membrane
B. Bacterial cell membrane
C. Cristae
D. Thylakoid membrane

Q.39 Which of the following contains peptidoglycan cell wall?
A. *Penicillium*
B. *Adiantum*
C. *E. coli*
D. *Funaria*

Q.40 The structure present in a eukaryotic cell but absent in prokaryotic cells is:
A. Nucleus
B. Ribosomes
C. DNA
D. Cell surface membrane

Q.41 The cisternae break up into vesicles from _____ of Golgi complex.
A. Convex, forming face
B. Convex, maturing face
C. Concave, forming face
D. Concave, maturing face

Q.42 Fluid mosaic model of plasma membrane states that protein molecules float in a fluid like _____ bilayer:
A. Cholesterol
B. Glucose
C. Phospholipids
D. Carbohydrate

Q.43 It is not a difference between prokaryotic and eukaryotic cell:
A. Ribosomal location
B. Ribosomal sedimentation rate
C. Ribosomal function
D. Ribosomal RNA synthesis site

Q.44 It involves aquaporins:
A. Movement of water from glomerulus to lumen of Bowman's capsule
B. Increase in permeability of epithelial cells of collecting tubules by ADH
C. Movement of water from descending loop to kidney interstitium
D. ALL A, B, C

Q.45 It is not processed by Golgi apparatus:
A. Immunoglobulins
B. Thyroid stimulating hormone
C. Afla toxin
D. Arginase

Q.46 It is common between plant and animal cell:

A. Storage site for polysaccharide
B. Gamete formation
C. Types of coordination
D. Presence of flagella

Q.47 All are the proteins of cell membrane that are involved in flow of nerve impulse except:

A. Channels proteins
B. Carrier proteins
C. Integral proteins
D. Peripheral proteins

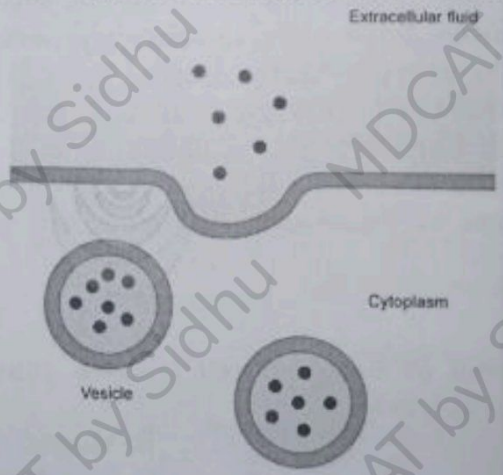
Q.48 Nucleus controls activities of cell by:

A. Expressing its DNA
B. Synthesizing cofactors
C. Providing chemical components
D. Facilitating chemical reactions

Q.49 It is more obvious in wood:

A. Primary cell wall
B. Cell membrane
C. Middle lamella
D. Secondary cell wall

Q.50 Following process that is taking place across a cell membrane is carried out by:



A. Active transport
B. Osmosis
C. Diffusion
D. Facilitated diffusion

Biology | CTS-1 | Cell-Structure & function

1-B
2-B
3-C
4-D
5-C
6-A
7-D
8-A
9-C
10-B

11-B
12-C
13-D
14-A
15-D
16-C
17-D
18-B
19-B
20-D

21-B
22-C
23-A
24-B
25-D
26-C
27-B
28-C
29-C
30-A

31-D
32-B
33-A
34-C
35-D
36-C
37-D
38-A
39-C
40-A

41-D
42-C
43-C
44-D
45-D
46-A
47-D
48-A
49-D
50-A