TEST

Self Assessment Test (Unit-1)

50 Questions

40 min

Topics

SAT Unit (Cell Biology)

Start Test

39 : 58

Q 1/50 40 min Hint

Q : Cytoplasmic streaming movement causes flow of all except:

A Endoplasmic reticulum

B Mitochondria

C Lysosomes

D Glucose and salts

39 : 57

Q 2/50 40 min Hint

Q : Movement of Na^+ across axon membrane via Na^+-K^+ pump is an example of:

A Active transport

B Passive transport

C Diffusion

D Osmosis

39 : 55

Q 3/50 40 min Hint

Q : Cells without nucleoli die because they do not possess:

A Centrioles, and are unable to undergo cell division

B Lysosomes, and are unable to destroy worn out organelles

C Mitochondria, and are unable to obtain energy

D Ribosomes, and are unable to manufacture proteins

39 : 54

Q 4/50 40 min Hint

Q : The source of illumination in electron microscope is:

A Visible light

B Blue light

C Far-red light

D Beam of electrons

39 : 53

Q 5/50 40 min Hint

Q : These play vital role in defense activity of macrophages:

A Mitochondria

B Lysozymes

C Lysosomes

D Ribosomes

39 : 52

Q 6/50 40 min Hint

Q : Damage to one of the following immediately kills the cell whether its prokaryotic or eukaryotic:

A Mitochondria

B Cell wall

C Cell membrane

D Golgi apparatus

39 : 51

Q 7/50 40 min Hint

Q : Which of these is not a part of murein?

A Polysaccharides

B Amino acid chains

C Glycans

D Proteins

1 2 3 4 5 6 7

39 : 49

Q 8/50 40 min Hint

Q : Fluid mosaic model of plasma membrane states that protein molecules float in a fluid like _____ layer.

A Galactose

B Phospholipids

C Glucose

D Carbohydrate

4 5 6 7 8 9

39 : 48

Q 9/50 40 min Hint

Q : Which one always passes through nuclear membrane from nucleoplasm to cytoplasm?

A Proteins

B Enzymes

C DNA nucleotides

D RNA

4 5 6 7 8 9

39 : 37

Q 10/50 40 min Hint

Q : Some cellular organelles are bounded by a single membrane, while others have two membranes around them. Which one of the following is correct?

A **Single membrane** **Two membrane**
Vacuole Lysosome Nucleus Chlorop

B **Single membrane** **Two membrar**
Chloroplast Lysosome Nucleus Vacu

C **Single membrane** **Two membrane**
Nucleus Chloroplast Lysosome Vacu

D **Single membrane** **Two membrane**
Nucleus Lysosome Chloroplast Vacu

5 6 7 8 9 10 11

39 : 36

Q 11/50 40 min Hint

Q : They help to detoxify the harmful drugs:

A Ribosomes

B RER

C SER

D Golgi bodies

39 : 34

Q 12/50 40 min Hint

Q : In Golgi apparatus, cisternae are thought to be moving from ____ to _____ face.

A Inner, outer

B Medial, lateral

C Concave, convex

D Convex, concave

39 : 33

Q 13/50 40 min Hint

Q : It is mismatched with reference to mitochondrial membrane:

A Outer membrane- Smooth

B Outer membrane – Chemiosmosis

C Inner membrane - F_1 particles

D Inner membrane - Increases surface area

39 : 32

Q 14/50 40 min Hint

Q : In cross-section, each centriole consists of a cylindrical array of:

A 3 microtubule triplets

B 6 microtubule triplets

C 9 microtubule triplets

D 12 microtubule triplets

39 : 30

Q 15/50 40 min Hint

Q : Cell secretions are actually produced at _____, then transported to outside through _____ and _____.

A Ribosomes, RER, SER

B Ribosomes, Golgi apparatus, SER

C RER, Golgi apparatus, Lysosomes

D Ribosomes, ER, Golgi apparatus

39 : 29

Q 16/50 40 min Hint

Q : Types of ribosome present in the cytosol and organelles of the eukaryotic cell are respectively:

A 60S and 40S

B 70S and 80S

C 80S and 70S

D 80S and 80S

39 : 26

Q :

Which of the following cell types would you expect to be abundant with endoplasmic reticulum and Golgi bodies?

1. Plasma B cells (produce antibodies)
2. Adipose cells (store fats)
3. Islet of Langerhans cells (secrete insulin)
4. Red blood cells (transport oxygen)

A I and II only

B III and IV only

C I and III only

D II and III only

39 : 24

Q 18/50 40 min Hint

Q : Which of the following is a protective structure in bacterial cells?

A Cell wall

B Cellulose

C Protoplasm

D Nuclei

39 : 23

Q 19/50 40 min Hint

Q : Plant cells are distinguishable from animal cells in containing:

A Mitochondria

B Ribosomes

C Endoplasmic reticulum

D Cell wall

39 : 21

Q 20/50 40 min Hint

Q : Endoplasmic reticulum is absent in:

A Animal cells

B Prokaryotic cells

C Plant cells

D Protists and Fungal cells

39 : 20

Q 21/50 40 min Hint

Q : Which one is always unicellular?

A Mycoplasma

B Virus

C Protists

D Algae

39 : 19

Q 22/50 40 min Hint

Q : If size of a particle is large or it has polarity, the suitable method of transportation will be:

A Osmosis

B Facilitated diffusion

C Diffusion

D Passive transport

39 : 18

Q 23/50 40 min Hint

Q : Nucleolus contains:

A Ribosomal precursor

B Protein precursor

C Polysome

D Lipid precursor

7 18 19 20 21 22 23

39 : 16

Q 24/50 40 min Hint

Q : Transport of glucose into the cell with the help of insulin is an example of:

A Osmosis

B Active transport

C Facilitated diffusion

D Endocytosis

39 : 15

Q 25/50 40 min Hint

Q : The functional units of Golgi apparatus is:

A Thylakoids

B Oxysomes

C Cristae

D Cisternae

9 20 21 22 23 24 25

39 : 13

Q 26/50 40 min Hint

Q : Centrioles/centrosome takes part in:

A Nucleolus formation

B Start of cell division

C Cell plate formation

D Spindle formation

21 22 23 24 25 26 2

39 : 12

Q 27/50 40 min Hint

Q : Outer and inner membranes of mitochondria are:

A Structurally and functionally similar

B Structurally and functionally different

C Structurally similar but functionally different

D Structurally different but functionally similar

39 : 10

Q 28/50 40 min Hint

Q : Which substances can cross plasma membrane more easily?

A Ions

B Proteins

C Lipid soluble

D Starch

3 24 25 26 27 28 29

39 : 09

Q 29/50 40 min Hint

Q : Part of cell membrane which is in contact with external and internal environment is:

A Hydrophobic

B Hydrophilic

C Hydrophilic and hydrophobic

D Neutral

39 : 07

Q 30/50 40 min Hint

Q : The ratio of RNA and protein in a ribosome is:

A 1 : 1

B 2 : 3

C 4 : 7

D 3 : 1

39 : 06

Q 31/50 40 min Hint

Q : Secretory granules bud off from:

A Golgi bodies

B SER

C Vacuoles

D Nucleus

26 27 28 29 30 31

39 : 05

Q 32/50 40 min Hint

Q : What is a polysome?

A Group of mRNAs and one ribosome

B mRNA + rRNA + tRNA + ribosome

C Many ribosomes and many mRNAs

D One mRNA and many ribosomes

39 : 04

Q 33/50 40 min Hint

Q : The vesicles which diffuse to form stack of cisternae sacs are derived from:

A Golgi Apparatus

B RER

C SER

D Lysosomes

8 29 30 31 32 33 34

39 : 03

Q 34/50 40 min Hint

Q : Which one is a self-replicating organelle?

A Ribosome

B Lysosome

C Centriole

D Mitochondrion

39 : 01

Q 35/50 40 min Hint

Q : The exact replica of the chromosome is:

A Centromere

B Kinetochore

C Chromatid

D Nucleosomes

39 : 00

Q 36/50 40 min Hint

Q : Which of the following organelle is involved in autophagy?

A Lysosomes

B Peroxisomes

C Glyoxysomes

D Microsomes

31 32 33 34 35 36 3

38 : 59

Q 37/50 40 min Hint

Q : All of the following are single membranous organelles except:

A Mitochondria

B Lysosomes

C Glyoxysomes

D Peroxisomes

31 32 33 34 35 36 37

38 : 57

Q 38/50 40 min Hint

Q : Lysosomes are most abundant in:

A Plant cells having phagocytic activity

B Bacteria with additional DNA plasmids

C Protozoa

D Animal cells having phagocytic activity

38 : 57

Q 39/50 40 min Hint

Q : The absence of an enzyme that is involved in the catabolism of lipids results in:

A Tay-Sach's disease

B Glycogenosis type I

C Glycogenosis type II

D Phenylketonuria

38 : 55

Q 40/50 40 min Hint

Q : Tay-Sach's disease mostly affects which of the followings organ in human body:

A Liver

B Brain

C Kidneys

D Muscles

38 : 54

Q 41/50 40 min Hint

Q : The lysosomes which eat parts of their own cells or cellular components during cellular starvation are called:

A Primary lysosomes

B Tertiary lysosomes

C Secondary lysosomes

D Autophagosomes

38 : 52

Q 42/50 40 min Hint

Q : Enzymes necessary for photosynthesis are present in:

A Chloroplast

B Chloroplast

C Cytoskeleton

D Lysosome

37 38 39 40 41 42 43

38 : 51

Q 43/50 40 min Hint

Q : Small and many vacuoles are generally found in:

A Mycelium

B Bacteria

C Animal cell

D Plant cell

37 38 39 40 41 42 43

38 : 50

Q 44/50 40 min Hint

Q : In a non-dividing cell, centrioles are_____ in number:

A 4

B 3

C 2

D 1

39 40 41 42 43 44 45

38 : 49

Q 45/50 40 min Hint

Q : The conversion of amino acids into proteins is the function of:

A Glyoxysomes

B Peroxisomes

C Lysosomes

D Ribosomes

39 40 41 42 43 44 45

38 : 46

Q 46/50 40 min Hint

Q : The process of photosynthesis occurs at:

A Plastids

B Chlorophylls

C Chloroplasts

D Thylakoids

41 42 43 44 45 46 47

38 : 45

Q 47/50 40 min Hint

Q : The size and number of mitochondria in a cell depends upon which factor?

A Size and shape of the cell

B Physiological activities

C Genetic makeup

D Evolutionary history

41 42 43 44 45 46 47

38 : 43

Q 48/50 40 min Hint

Q : Which cell would have chloroplasts in abundance?

A Phloem cells

B Epidermal cells

C Meristem

D Mesophyll cells

43 44 45 46 47 48 49

38 : 42

Q 49/50 40 min Hint

Q : The type of cytoskeletal proteins that play important role in assembly and disassembly of spindle during mitosis:

A Microtubules

B Microfilaments

C Intermediate filaments

D Actin and tropomyosin

38 : 40

Q 50/50 40 min Hint

Q : Which of the following can maintain the shape of the cell?

A Microtubules

B Intermediate filaments

C Microfilaments

D All of these

44 45 46 47 48 49 50

Self Assessment Test (Unit-1)

Correct

Unattempted

Incorrect

Q 1/50

Q : Cytoplasmic streaming movement causes flow of all except:

A Endoplasmic reticulum

B Mitochondria

C Lysosomes

D Glucose and salts

1 2 3 4 5 6 7

Self Assessment Test (Unit-1)

Correct

Unattempted

Incorrect

Q 2/50

Q : Movement of Na^+ across axon membrane via Na^+-K^+ pump is an example of:

A Active transport

B Passive transport

C Diffusion

D Osmosis

1 2 3 4 5 6 7

Self Assessment Test (Unit-1)

Correct

Unattempted

Incorrect

Q 3/50

Q : Cells without nucleoli die because they do not possess:

A Centrioles, and are unable to undergo cell division

B Lysosomes, and are unable to destroy worn out organelles

C Mitochondria, and are unable to obtain energy

D Ribosomes, and are unable to manufacture proteins

1 2 3 4 5 6 7

Self Assessment Test (Unit-1)

Correct

Unattempted

Incorrect

Q 4/50

Q : The source of illumination in electron microscope is:

A Visible light

B Blue light

C Far-red light

D Beam of electrons

1 2 3 4 5 6 7

Self Assessment Test (Unit-1)

Correct

Unattempted

Incorrect

Q 5/50

Q : These play vital role in defense activity of macrophages:

A Mitochondria

B Lysozymes

C Lysosomes

D Ribosomes

1 2 3 4 5 6 7

Self Assessment Test (Unit-1)

Correct

Unattempted

Incorrect

Q 6/50

Q : Damage to one of the following immediately kills the cell whether its prokaryotic or eukaryotic:

A Mitochondria

B Cell wall

C Cell membrane

D Golgi apparatus

1 2 3 4 5 6 7

Self Assessment Test (Unit-1)

Correct

Unattempted

Incorrect

Q 7/50

Q : Which of these is not a part of murein?

A Polysaccharides

B Amino acid chains

C Glycans

D Proteins

1 2 3 4 5 6 7

Self Assessment Test (Unit-1)

Correct

Unattempted

Incorrect

Q 8/50

Q : Fluid mosaic model of plasma membrane states that protein molecules float in a fluid like _____ layer.

A Galactose

B Phospholipids

C Glucose

D Carbohydrate

3 4 5 6 7 8 9

Self Assessment Test (Unit-1)

Correct

Unattempted

Incorrect

Q 9/50

Q : Which one always passes through nuclear membrane from nucleoplasm to cytoplasm?

A Proteins

B Enzymes

C DNA nucleotides

D RNA

3 4 5 6 7 8 9

Self Assessment Test (Unit-1)

Correct

Unattempted

Incorrect

Q 10/50

Q : Some cellular organelles are bounded by a single membrane, while others have two membranes around them. Which one of the following is correct?

A **Single membrane** **Two membra**
Vacuole Lysosome Nucleus Chlorc

B **Single membrane** **Two membr**
Chloroplast Lysosome Nucleus Vac

C **Single membrane** **Two membra**
Nucleus Chloroplast Lysosome Vac

Single membrane **Two membra**

5 6 7 8 9 10 11

Self Assessment Test (Unit-1)

Correct

Unattempted

Incorrect

Q 11/50

Q : They help to detoxify the harmful drugs:

A Ribosomes

B RER

C SER

D Golgi bodies

5 6 7 8 9 10 11

Self Assessment Test (Unit-1)

Correct

Unattempted

Incorrect

Q 12/50

Q : In Golgi apparatus, cisternae are thought to be moving from ____ to _____ face.

A Inner, outer

B Medial, lateral

C Concave, convex

D Convex, concave

8 9 10 11 12 13 14

Correct | Unattempted

Incorrect | Q 13/50

Q : It is mismatched with reference to mitochondrial membrane:

A Outer membrane- Smooth

B Outer membrane – Chemiosmosis

C Inner membrane - F_1 particles

D Inner membrane - Increases surface area

Self Assessment Test (Unit-1)

Correct

Unattempted

Incorrect

Q 14/50

Q : In cross-section, each centriole consists of a cylindrical array of:

A 3 microtubule triplets

B 6 microtubule triplets

C 9 microtubule triplets

D 12 microtubule triplets

8 9 10 11 12 13 14

Self Assessment Test (Unit-1)

Correct

Unattempted

Incorrect

Q 15/50

Q : Cell secretions are actually produced at _____, then transported to outside through _____ and _____.

A Ribosomes, RER, SER

B Ribosomes, Golgi apparatus, SER

C RER, Golgi apparatus, Lysosomes

D Ribosomes, ER, Golgi apparatus

11 12 13 14 15 16 17

Correct
Unattempted
Incorrect
Q 17/50

Q :

Which of the following cell types would you expect to be abundant with endoplasmic reticulum and Golgi bodies?

1. Plasma B cells (produce antibodies)
2. Adipose cells (store fats)
3. Islet of Langerhans cells (secrete insulin)
4. Red blood cells (transport oxygen)

A I and II only

B III and IV only

C I and III only

Self Assessment Test (Unit-1)

Correct

Unattempted

Incorrect

Q 18/50

Q : Which of the following is a protective structure in bacterial cells?

A Cell wall

B Cellulose

C Protoplasm

D Nuclei

Self Assessment Test (Unit-1)

Correct

Unattempted

Incorrect

Q 19/50

Q : Plant cells are distinguishable from animal cells in containing:

A Mitochondria

B Ribosomes

C Endoplasmic reticulum

D Cell wall

13 14 15 16 17 18 19

Self Assessment Test (Unit-1)

Correct

Unattempted

Incorrect

Q 20/50

Q : Endoplasmic reticulum is absent in:

A Animal cells

B Prokaryotic cells

C Plant cells

D Protists and Fungal cells

16 17 18 19 20 21

Self Assessment Test (Unit-1)

Correct

Unattempted

Incorrect

Q 21/50

Q : Which one is always unicellular?

A Mycoplasma

B Virus

C Protists

D Algae

16 17 18 19 20 21

Self Assessment Test (Unit-1)

Correct

Unattempted

Incorrect

Q 22/50

Q : If size of a particle is large or it has polarity, the suitable method of transportation will be:

A Osmosis

B Facilitated diffusion

C Diffusion

D Passive transport

16 17 18 19 20 21 22

Self Assessment Test (Unit-1)

Correct

Unattempted

Incorrect

Q 23/50

Q : Nucleolus contains:

A Ribosomal precursor

B Protein precursor

C Polysome

D Lipid precursor

19 20 21 22 23 24 25

Self Assessment Test (Unit-1)

Correct

Unattempted

Incorrect

Q 24/50

Q : Transport of glucose into the cell with the help of insulin is an example of:

A Osmosis

B Active transport

C Facilitated diffusion

D Endocytosis

19 20 21 22 23 24 25

Correct | Unattempted

Incorrect | Q 25/50

Q : The functional units of Golgi apparatus is:

A Thylakoids

B Oxysomes

C Cristae

D Cisternae

Correct
Unattempted
Incorrect
Q 26/50

Q : Centrioles/centrosome takes part in:

A Nucleolus formation

B Start of cell division

C Cell plate formation

D Spindle formation

Correct
Unattempted
Incorrect
Q 27/50

Q : Outer and inner membranes of mitochondria are:

A Structurally and functionally similar

B Structurally and functionally different

C Structurally similar but functionally different

D Structurally different but functionally similar

Self Assessment Test (Unit-1)

Correct

Unattempted

Incorrect

Q 28/50

Q : Which substances can cross plasma membrane more easily?

A Ions

B Proteins

C Lipid soluble

D Starch

22 23 24 25 26 27 28

Self Assessment Test (Unit-1)

Correct

Unattempted

Incorrect

Q 29/50

Q : Part of cell membrane which is in contact with external and internal environment is:

A Hydrophobic

B Hydrophilic

C Hydrophilic and hydrophobic

D Neutral

Correct
Unattempted
Incorrect
Q 30/50

Q : The ratio of RNA and protein in a ribosome is:

A 1 : 1

B 2 : 3

C 4 : 7

D 3 : 1

Self Assessment Test (Unit-1)

Correct

Unattempted

Incorrect

Q 31/50

Q : Secretory granules bud off from:

A Golgi bodies

B SER

C Vacuoles

D Nucleus

Correct
Unattempted
Incorrect
Q 32/50

Q : What is a polysome?

A Group of mRNAs and one ribosome

B mRNA + rRNA + tRNA + ribosome

C Many ribosomes and many mRNAs

D One mRNA and many ribosomes

Correct
Unattempted
Incorrect
Q 33/50

Q : The vesicles which diffuse to form stack of cisternae sacs are derived from:

A Golgi Apparatus

B RER

C SER

D Lysosomes

Self Assessment Test (Unit-1)

Correct

Unattempted

Incorrect

Q 34/50

Q : The vesicles which diffuse to form stack of cisternae sacs are derived from:

A

B

C

D

29 30 31 32 33 34

Self Assessment Test (Unit-1)

Correct

Unattempted

Incorrect

Q 34/50

Q : Which one is a self-replicating organelle?

A Ribosome

B Lysosome

C Centriole

D Mitochondrion

29 30 31 32 33 34

Self Assessment Test (Unit-1)

Correct

Unattempted

Incorrect

Q 35/50

Q : The exact replica of the chromosome is:

A Centromere

B Kinetochore

C Chromatid

D Nucleosomes

32 33 34 35 36 37

Self Assessment Test (Unit-1)

Correct

Unattempted

Incorrect

Q 36/50

Q : Which of the following organelle is involved in autophagy?

A Lysosomes

B Peroxisomes

C Glyoxysomes

D Microsomes

Correct
Unattempted
Incorrect
Q 37/50

Q : All of the following are single membranous organelles except:

A Mitochondria

B Lysosomes

C Glyoxysomes

D Peroxisomes

Correct

Unattempted

Incorrect

Q 38/50

Q : Lysosomes are most abundant in:

A Plant cells having phagocytic activity

B Bacteria with additional DNA plasmids

C Protozoa

D Animal cells having phagocytic activity

Correct

Unattempted

Incorrect

Q 39/50

Q : The absence of an enzyme that is involved in the catabolism of lipids results in:

A Tay-Sach's disease

B Glycogenosis type I

C Glycogenosis type II

D Phenylketonuria

Correct

Unattempted

Incorrect

Q 40/50

Q : Tay-Sach's disease mostly affects which of the followings organ in human body:

A Liver

B Brain

C Kidneys

D Muscles

Self Assessment Test (Unit-1)

Correct

Unattempted

Incorrect

Q 41/50

Q : The lysosomes which eat parts of their own cells or cellular components during cellular starvation are called:

A Primary lysosomes

B Tertiary lysosomes

C Secondary lysosomes

D Autophagosomes

35 36 37 38 39 40 41

Correct
Unattempted
Incorrect
Q 42/50

Q : Enzymes necessary for photosynthesis are present in:

A Chloroplast

B Chloroplast

C Cytoskeleton

D Lysosome

Self Assessment Test (Unit-1)

Correct

Unattempted

Incorrect

Q 43/50

Q : Small and many vacuoles are generally found in:

A Mycelium

B Bacteria

C Animal cell

D Plant cell

Self Assessment Test (Unit-1)

Correct

Unattempted

Incorrect

Q 44/50

Q : In a non-dividing cell, centrioles are_____ in number:

A 4

B 3

C 2

D 1

Self Assessment Test (Unit-1)

Correct

Unattempted

Incorrect

Q 45/50

Q : The conversion of amino acids into proteins is the function of:

A Glyoxysomes

B Peroxisomes

C Lysosomes

D Ribosomes

Self Assessment Test (Unit-1)

Correct

Unattempted

Incorrect

Q 46/50

Q : The process of photosynthesis occurs at:

A Plastids

B Chlorophylls

C Chloroplasts

D Thylakoids

Correct

Unattempted

Incorrect

Q 47/50

Q : The size and number of mitochondria in a cell depends upon which factor?

A Size and shape of the cell

B Physiological activities

C Genetic makeup

D Evolutionary history

Correct

Unattempted

Incorrect

Q 48/50

Q : Which cell would have chloroplasts in abundance?

A Phloem cells

B Epidermal cells

C Meristem

D Mesophyll cells

Correct

Unattempted

Incorrect

Q 49/50

Q : The type of cytoskeletal proteins that play important role in assembly and disassembly of spindle during mitosis:

A Microtubules

B Microfilaments

C Intermediate filaments

D Actin and tropomyosin

Correct
Unattempted
Incorrect
Q 50/50

Q : Which of the following can maintain the shape of the cell?

A Microtubules

B Intermediate filaments

C Microfilaments

D All of these