



BIOLOGY

BOOKS - DINESH PUBLICATION ENGLISH

STRUCTURE OF THE CELL

Multiple Choice Questions

1. Number of networks present in a plant cell wall is

A. Three

B. Two

C. One

D. Four

Answer: A

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2. Beside cellulose microfibrils, the other two cell with networks are

A. Protein and hemicellulose

B. Hemicellulose and protein

C. Pectic and glycoprotein

D. Pectin and hemicellulose

Answer: C

3. Middle lamella occurs

A. Inner to primary wall

B. Inner to secondary wall

C. Outer to secondary wall

D. Outer to primary wall

Answer: D

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4. Hydrophilic chemical of cell wall is

A. Pectin

B. Suberin

C. Fat

D. Lignin

Answer: A

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5. What is the structural element of cell wall

A. Matrix

B. Microfibrils

C. Microtubules

D. Arabinogalactans

Answer: B



6. Differnet layers of cell wall are

A. Middle lamella and primary wall

B. Primary wall and secondary wall

C. Middle lamella, primary wall and secondary wall

D. Wall layers exclude midddle lamella

Answer: B

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7. Outermost layer of cell wall is

A. primary wall

B. Secondary wall

C. Tertiary wall

D. Middle lamella , if present

Answer: D



8. The first wall layer of cell is

A. Tertiary wall, if present

B. Secondary wall

C. Primary wall

D. Middle lamella, if present

Answer: C

D Watch Video Solution

9. Which component of cell wall is normally in contact with

plasmalemma

A. primary wall

B. Secondary wall

C. Plasmodesmata

D. Middle lamella

Answer: B

10. Primary wall grows by

A. Accertion

B. Introgression

C. Intussusception

D. All the above

Answer: C

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11. Secondary cell wall grows by

A. Intercalation

B. Introgression

C. Accertion

D. Epiboly

Answer: C

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12. The secondary wall is chiefly composed of

A. Single layer

B. Many layers

C. Two layers

D. Three layers

Answer: D



13. Load bearing parts of the plant cells is

A. Middle lamella

B. Secondary wall

C. Primary wall

D. Tertiary wall

Answer: B

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14. Primary wall is generally elastic due to absence of

A. Lignin

B. Suberin

C. Cutin

D. Silica

Answer: A



15. Plant cells are distinguishable from animal cells in containing

A. Mitochondria

B. Ribosomes

C. E.R.

D. Cell wall

Answer: D

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16. The structural material of fungal cell wall is

A. Pectin

B. Cellulose

C. Peptidoglycan

D. Chitin

Answer: D

17. Ripe fruits soften due to

A. Degradation of cell walls

B. Partial solubilisation fo pectic compounds

C. Metabolism of tannis

D. Exosmosis

Answer: B

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18. Hardness of woody tissue is due to

A. Silica

B. Lignin

C. Cellulose

D. Suberin

Answer: B

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19. In cell wall of guard cells, cellulose microfibrils are arranged

A. Small , loose and wavy

B. Long, loose and wavy

C. Small, compact and straight

D. Long, compact and straight

Answer: A



20. In which of the following , cellulose content is maximum?

A. primary wall

B. Secondary wall

C. Tertiary wall

D. Middle lamella

Answer: B



21. Tertiary wall is known from

A. Compression wood of dicots

B. Tension wood of gymnosperms

C. Cotton fibres

D. All hard woods

Answer: B



22. Plasmodesmata were discovered and named by

A. Hanstein

B. Kolliker

C. Strasburger

D. Garnier

Answer: C

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23. Part of endoplesma is called

A. Desmotubule

B. Cisterna

C. Vesicle

D. Myeloid body

Answer: A

24. Adjacent tracheids and vessels can transfer sap through

thin areas in their walls called

A. Plasmodesmata

B. Gap junctions

C. Tight junctions

D. Pits

Answer: D

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25. Pits are

A. Depression in primary walls

B. Depressions in secondary walls

C. Both A and B

D. Plasmodesmal connections

Answer: B



26. A complete pit is

A. Depression in secondary wall

B. Pit chamber and primary wall

C. Pit chambers of two adjacent cells and pit membrane

D. Pit chamber, primary wall and middle lamella

Answer: C

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27. Pit membrane of simple pit is formed by

A. primary wall

B. Secondary wall

C. Middle lamella + primary wall

D. primary wall + middle lamella + primary wall

Answer: D

28. A pit present in the wall of cell lying adjacent to an intercellular

space is

A. Complete pit

B. Blind pit

C. A pit without its partner

D. Both B and C

Answer: D



29. Q. A disc-shaped thickening present on the pit membrane

A. a) Torus

B. b) Callus

C. c) Tylosis

D. d) Stoma

Answer: A

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30. Glucocalyx is

A. Glycoproteins and glycolipids

B. Oligosaccharide part of glycolipids and glycoproteins

C. Lipid and protein parts of glycolipids and glycoproteins

D. Mucopolysaccharides attached to cell wall

Answer: B

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31. Separated cells of two sponge species are mixed up. They

are

A. Remain separate

B. Aggregate tissue-wise

C. Aggregate and fuse to form hybirds

D. Aggregate species wise and reconstruct the sponges

Answer: D

32. Separated cells of two vertebrates are mixed up. They will

A. Aggregate species -wise

B. Aggregate tissue-wise

C. Aggregate species -wise and then tissue wise

D. Aggregate species wise and reconstruct the animals

Answer: B

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33. Glycocalyx is responsible for

A. Antigens like those of blood groups ABO

B. Immune reactions and histocompatibility

C. Hormone receptors

D. All the above

Answer: D

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34. Protoplasm is

A. Alveolar

B. Granular

C. Fibrillar

D. Crystallo -colloidal

Answer: D





35. Who proposed crystallo-colloidal nature of protoplasm

A. Fischer

B. Fromann

C. Velton

D. Hanstein

Answer: A

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36. The term protoplast was coined by

A. Strasburger

B. Hanstein

C. Butschili

D. Fischer

Answer: B



37. Who differentiated procaryotic and eucaryotic cells

A. Huxley

B. Linnaeus

C. Whittaker

D. Dougherty.

Answer: D

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38. Mesokaryotic condition was distinguished by

A. Whittaker

B. Dodge

C. Copeland

D. Haeckel

Answer: B

39. Protoplast excluding nucleus is called

A. Cytoplasm

B. Endoplasm

C. Ectoplasm

D. Protoplasm

Answer: A

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40. Which one is an extracytoplasmic cell organelle

A. Vacuole

B. E.R.

C. Golgi apparatus

D. Nucleus

Answer: D

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41. The term cytoplasm was coined by

A. Sachs

B. Strasburger

C. Hanstein

D. Flemming

Answer: B



42. The jelly-like fluid protoplasmic matrix which surrounds the nucleus and constitutes the true internal milieu of the cell is called

A. Endoplast

B. Cytosol

C. Cytoplasmic matrix

D. Both B and C

Answer: D



43. Plasmagel or gel part of cytosol in contact with plasmalemma is

A. Ectoplasm

B. Hyaloplasm

C. Hyalosome

D. Both A and B

Answer: A

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44. Plasmasol or sol part of cytosol in contact is known as

A. Hyalosome

B. Hyaloplasm

C. Endoplasm

D. Both B and C

Answer: D



45. Which part of protoplast shows streaming or cyclosis

A. Ectoplasm

B. Endoplasm

C. Endoplasmic matrix

D. Nucleoplasm

Answer: C Watch Video Solution

46. Amici (1818) studied cyclosis for the first time in

A. Hydrilla

B. Amoeba

C. Chara

D. Acetabularia

Answer: C

47. Cyclosis is caused by activity of

A. Microtubules

B. Microfilaments

C. Intermediate filaments

D. All the above

Answer: B

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48. Circulation type of protoplasmic streaming is studied in

A. Staminal hair cell of Tradescantia

B. Hydrilla leaf cells

C. Vallisneria leaf cells

D. Both B and C

Answer: A

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49. In circulation streaming protoplasm moves in

A. One direction

B. Two opposite directions around a vacuole

C. Different directions around different vacuoles

D. Both A and B

Answer: C



50. In rotation type of cyclosis , the cytolasmic matrix flows in

A. One direction

B. Two opposite directions

C. Different directions

D. Side -ways

Answer: B

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51. A membrane-lined system of channels present throughout

the cytoplasm is

A. Endoplasmic reticulum

B. Golgi apparatus

C. Microtubules

D. Both B and C

Answer: A

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52. Percentage of cell membranes contained in E.R. is

A. 10-20%

B. 20-30%

C. 30-60%

D. 60-75%

Answer: C

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53. Eucaryotic cells devoid of E.R. are

A. Liver cells

B. Kindey cells

C. Mature leucocytes

D. Mature erythrocytes.

Answer: D

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54. Eucaryotic cells which contain very little of E.R. are

A. Early embryonic cells

B. Ova

C. Resting cells

D. All the above

Answer: D

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55. E.R. is made of

A. Cisternae

B. Tubules

C. Vesicles

D. All the above

Answer: D

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56. E.R. was discovered by

A. Palade

B. Porter

C. Thomson

D. Both B and C

Answer: B





57. "Endoplasmic reticulum" was discovered by

A. Thompson

B. Palade

C. Porter

D. Garnier

Answer: C



58. E.R. was discovered from

A. Liver cells

B. Kindey cells

C. Muscle cells

D. Nerve cells

Answer: A



59. Q. Membrane thickness of E.R. is

A. a) 75Ã. . .

B. b) 90Ã...

C. c) $50 - 60 \tilde{A}$...

D. d) $30 - 40 ilde{A} \dots$

Answer: C

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60. R.E.R is

A. Neutrophilic

B. Acidophilic

C. Basophilic

D. Neurogenic

Answer: A

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61. What is more abundant in S.E.R

A. Cisternae and vesicles

B. Cisternae and tubules

C. Tubules and vesicles

D. Cisternae

Answer: C

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62. What is more abundant in R.E.R

A. Cisternae

B. Vesicles

C. Tubules

D. Both A and B

Answer: A

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63. P_{450} and P_{448} occurs over

A. S.E.R

B. R.E.R

C. Annulate E.R

D. Transitional E.R

Answer: A



64. S.E.R takes part in synthesis of

A. Lipids proteins

B. Vitamins

C. Carbohydrates

D. All the above

Answer: D

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65. R.E.R is specialised for synthesis of

A. Local proteins

B. Local proenzymes

C. Proteins and proenzymes for transport

D. Hormones

Answer: C

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66. Pollutants, toxins and carcinogens are detoxified by

A. P_{450} and P_{448}

B. S.E.R in liver

C. R.E.R in liver

D. Both A and B

Answer: D

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67. Ribophorins/SRP receptors are required for

A. Synthesis of ribosomes in nucleolus

B. Attachment of ribosomes over R.E.R

C. Attachment of ribosome subunits

D. Attachment of mRNA to ribosomes for protein

synthesis.

Answer: B

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68. Besides proteins, ribosomes contain

A. DNA

B. RNA

C. Botb DNA and RNA

D. Lipids

Answer: B



69. Sedimentation unit of ribosome is

A. μ (micron)

B. μm (milimicron)

C. $\tilde{A}.$. . (Angstrom)

D. S (Svedberg)

Answer: D

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70. Q. Cytoribosomes of eucaryotes are different from those

of bacterial cells in having

A. a) Smaller size (70 S type)

B. b) Larger size (80 S type)

C. c) Differential chemical structure

D. d) All the above

Answer: B



71. A ribosome is composed of

A. A single unit

B. Two subunits

C. Three subunits

D. Four subunits

Answer: B



72. Ribosomes develop from

A. Nucleus

B. Nucleolus

C. Endoplasmic reticulum

D. Mitochondria

Answer: B



73. Polysome is a chain of

A. Oxysomes

B. Sphaerosomes

C. Ribosomes

D. Dictyosomes

Answer: C

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74. Organelle ribosomes occur in

A. Bacteria

B. Blue-Green Algae

C. Plastids and Mitochondria

D. Nucleus

Answer: C

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75. Organelle ribosomes resemble

A. Organelle ribosomes of prokaryotes

B. Cytoribosomes of prokaryotes

C. cytoribosomes of eukaryotes

D. all of the above

Answer: B

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76. Q. Ribosomes were first seen by

A. a) Claude

B. b) Palade

C. c) George

D. d) De Duve

Answer: A

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77. Palade granules are

A. Glycoprotein particles

B. Pigment and Brown

C. Excretory vesicles

D. Ribosomes

Answer: D

78. Ribosomes were first observed under the EM as dense particles by

A. Robinson and Brown

B. Thompson

C. Perner

D. Schimper

Answer: A



79. Prokaryotic ribosomes are

A. 80 S

B. 100 S

C. 70 s

D. 45 S

Answer: C

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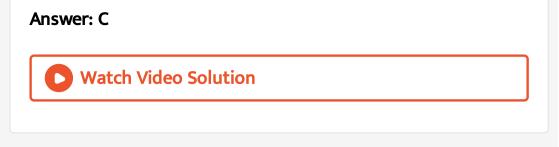
80. Eucaryotes possess ribosomes

A. 60 S

B. 70 S

C. 80 S

D. Both B and C



81. Which element is required for binding of ribosome subunits during protein synthesis ?

A. $Ca^{2\,+}$

B. $Mg^{2\,+}$

 $\mathsf{C.}\, Fe^{2\,+}$

D. Cu^+

Answer: B



82. rRNA present in 60 S subunit of ribosome is

A. 40-44,56-60

B. 45-44,50-55

C. 50-55,50-55

D. 60-65,35-40

Answer: A

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83. rRNA present in 60 S subunit of ribosome is

A. 5 S

B. 5.8 S

C. 16 S

D. 18 S

Answer: D

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84. rRNA present in 60 S subunit of ribosome is

A. 5 S

B. 5.8 S

C. 28 S

D. All the above

Answer: D



85. rRNA present in 50 S subunit of ribosome is

A. 23 S

B. 5 S

C. Both A and B

D. 23 S, 5.8 S and 5

Answer: C

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86. Number of proteins associated with 60 S ribosome subunit is

A. 46

B. 34

C. 30

D. 21

Answer: A

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87. Chloramphenicol prevents protein synthesis over

A. Procaryotic ribosomes

B. Organelle ribosomes

C. Both A and B

D. 80 S ribosomes

Answer: C Watch Video Solution

88. Q. Most abundant organelles of the cell are

A. a) Mitochondria

B. b) Plastids

C. c) Ribosomes

D. d) Microbodies

Answer: C

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89. Golgi appratus was first seen by

A. George

B. Golgi

C. Cajal

D. Robinson and Brown

Answer: B

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90. Who studied Golgi appartus for the first time

A. Golgi

B. George

C. Cajal

D. Koltzoff

Answer: A

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91. Q. Golgi was able to differentiate Golgi apparatus through

A. a) Phase contrast microscopy

B. b) Metallic impregnation technique

C. c) Electron microscopy

D. d) Special redox dye.

Answer: B



92. Golgi studied Golgi apparatus in

A. Nerve cells of dog and fish

B. Goblet cells of dog's stomach

C. Nerve cells of barn owl and cat

D. Goblet cells of barn owl and cat.

Answer: C

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93. Metallic stain used by Golgi was

A. Lead acetate

B. Osmium choride and silver salts

C. Phosphotungstate

D. Palladium

Answer: B

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94. Golgi apparatus was first seen under electron microscope

by

A. Novikroff

B. Dalton and Felix

C. Rhodin

D. De Robertis and Franchi

Answer: B

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95. A cell organelle with a definite polarity is

A. Ribosome

B. Mitochondrion

C. Golgi apparatus

D. Chloroplast

Answer: C

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96. Golgi apparatus is made of

A. Cisternae

- B. Tubules and vesicles
- C. Golgian vacuoles
- D. All the above

Answer: D



97. On which side of Golgi apparatus are the merbranes thin

A. Concave distal side

B. Concave proximal side

- C. Convex distal side
- D. Convex proximal side

Answer: D

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98. Golgian vacuoles develop from

A. Tubules

B. Convex proximal cisterna

C. Concave distal cisterna

D. Transition vesicles

Answer: C



99. Golgi apparatus receives biochemical with the help of tansition vesicles formed by

A. E.R.

B. Plasmalemma

C. Lysosomes

D. Nuclear bleds

Answer: A



100. Space between adjacent cisternae of Golgi apparatus is

A. 15Ã. . .

B. 30Ã...

 $\text{C.}\,80-100\tilde{A}\ldots$

 $\mathsf{D.}\,100-300\tilde{A}.\,.\,$

Answer: D

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101. Inter-cisternal space is occupied by

A. Cytosol

B. Cementing materials

C. Fibrils

D. All the above

Answer: D

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102. Which one is the function of Golgi apparatus

A. Cell plate formation

B. Matrix formation of connective tissue

C. Secretion of tears

D. All the above

Answer: D

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103. Golgi apparatus is concerned with

A. Excretion

B. Secretion

C. ATP synthesis

D. RNA synthesis

Answer: B

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104. Q. Golgi complex is not found in

A. a) Nerve cells

B. b) RBCs

C. c) Germ cells

D. d) All the above

Answer: B

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105. Cell organelle specialised in forming acrosome part of sperm is

A. Mitochondrion

B. Centriole

C. Peroxisome

D. Golgi apparatus

Answer: D



106. Q. Amongest plants, Golgi apparatus is absent in

A. a) Sieve tube cells

B. b) Sperms of bryophytes

C. c) Sperms of pteridophytes

D. All the above

Answer: D



107. Membrane flow occurs in

A. Golgi apparatus

B. E.R.

C. Karyotheca

D. Contractile vacuoles.

Answer: A

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108. Q. Isolated units of Golgi apparatus found in plant cells

are called

A. a) Golgisomes

B. b) Dictyosomes

C. c) Lipochondria

D. d) Cisternae

Answer: B

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109. Dictyosomes are unicisternal in

A. Fungi

B. Protistans

C. Algae

D. Bryophytes

Answer: A



110. Which cell organella is involved in formation of saliva,

tear and sweat

A. R.E.R

B. S.E.R

C. Golgi apparatus

D. Both B and C

Answer: C

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111. Golgi apparatus takes part in synthesis of

A. Heteropolysaccharides

B. Glycoproteins

C. Hormones

D. All the above

Answer: D



112. Lysosomes were first seen and named by

A. De Duve

B. Palade

C. Novikoff

D. Robertson

Answer: C

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113. Lysosomes originate from

A. Plasmalemma

B. Golgi apparatus

C. Both A and B

D. R.E.R

Answer: B

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114. The main function of lysosomes is

A. Secretion

B. Respiration

C. Extracellular digestion

D. Intracellular digestion

Answer: D

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115. Q. De Duve discovered lysosomes from

A. a) Orchid root cells

B. b) Rat liver cells

C. c) Rat kidney cells

D. c) Leaf cells

Answer: B

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116. Lysosomes are absent in animals cells

A. Erythrocytes

B. Plasma cells

C. Nerve cells

D. Muscle cells

Answer: A

117. pH of lysosomes interior is

- A. 10 12
- B.8 10
- $\mathsf{C.}\,5-7$
- $\mathsf{D.4}-5$

Answer: D



118. Secondary lysosomes are

A. Digestive vacuoles

B. Autophagic vacuoles

C. Residual vacuoles

D. All the above

Answer: D



119. Lipofuscin granules present in nerve cells are actually

A. Primary lysosomes

B. Digestive vacuoles

C. Residual bodies

D. Newly digested lipids.

Answer: C

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120. Cartilage matrix is digested during its osteogenesis through

A. Intracellular autophagic activity

B. Extracellular lysosomal activity

C. Intercellular heterophagic activity

D. Both B and C

Answer: B

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121. Disease caused by hyperactivity of lysosomes is

A. Arthritis

B. Gout

C. lung fibrosis

D. All the above

Answer: D

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122. A disease caused by reduced ephagic activity of residual

bodies is

A. Hepatitis

B. Polynephritis

C. Hypertension

D. Both A and B

Answer: D



123. Which one is a lysosomal activity

A. Option1 Reabsorption of tadpole tail

B. Option 2 Mobilsiation of stored substance

C. Option 3 Removal of obstructions

D. Option 4 All the above

Answer: D

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124. Cell organelle getting stained with redox dye Janus Green

is

A. Lysosome

B. Mitochondrion

C. Ribosome

D. Golgi apparatus

Answer: B

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125. An early name of mitochondrion was

A. Fila

B. Sarcosome

C. Bioplast

D. All the above

Answer: D

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126. Mitochondria were discovered by

A. Michaelis

B. Benda

C. Kolliker

D. Krebs

Answer: C

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127. The scientist who related mitochondria to aerobic respiration is

A. Kinsbury

B. Michaelis

C. Seekevitz

D. Fernandes-Moran

Answer: A



128. A eukaryotic aerobic cell that does not posses mitochondria is

A. Liver cells

B. Kindey cells

C. Erythrocyte

D. Leucocyte

Answer: C



129. Out mitochondrial membrane resembles bacterial membrane and outer chloroplast membrane in having

A. Selective permeability

B. Single ion channels

C. Porins

D. All the above

Answer: C

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130. The organelles called power houses of the cell are

B. Lysosomes

C. Mitochondria

D. Chloroplast

Answer: C



131. In the inner mitochondrial membrane , proton channel is constituted by

A. F_0

 $\mathsf{B.}\,F_1$

C. $NADH(H^+)$

D. Cytochrome oxidase.

Answer: A

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132. Small particles attached to inner mitochondrial membranes are

A. Ergosomes

B. Cristae

C. Elementary particles

D. Quantasomes

Answer: C

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133. Pigment free plastids are

A. Chloroplasts

B. Chromoplasts

C. Lysosomes

D. Leucoplasts

Answer: D

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134. The term plastid was given by

A. Schimper

B. Haeckel

C. Hanstein

D. Strasburger

Answer: B

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135. Proplastids are found in

A. Root cells

B. Storage cells

C. Meristematic cells

D. Cortical cells

Answer: C



136. The plastid which can form all other types of plastids is

A. Leucoplast

B. Amyloplast

C. Choroplast

D. Chromoplast

Answer: A

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137. Chromoplasts are formed from chloroplasts during

A. Ripening of Tomato

B. Ripening of Chilli

C. Development of Carrot

D. Both A and B

Answer: D



138. Chromoplasts are formed from leucoplasts in

A. Rose petals

B. Carrot

C. Dahlia florets

D. All the above

Answer: B

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139. Irregular shape of chromoplasts is due to

A. Genetic differences

B. Crystallisation of carotenoids

C. Formation of lipids

D. Destruction of lamellae

Answer: B

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140. Leuoplasts are present in

A. Green cells

B. Pigmented cells other then green

C. Non-pigmented cells

D. Both A and B

Answer: C

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141. Organelle covered by double membrane is

A. Nucleus

B. Mitochondrion

C. Plastid

D. All the above

Answer: D

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142. Plastids contain

A. Double membrane covering

B. DNA, RNA and ribosomes

C. Lamellae

D. All the above

Answer: D



143. Starch is stored in

A. Chromoplasts

B. Amyloplasts

C. Chloroplasts

D. Both B and C

Answer: D

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144. Plastids storing proteins are called

A. Elaioplasts

B. Oleosomes

C. Aleuroplasts

D. Phaeoplasts

Answer: C



145. The three types of plastids were named by

A. Meyer

B. Schimper

C. Hanstein

D. Flemming

Answer: B

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146. Grana are

A. Protein storing plastids

B. Coloured plastids

C. Stacks of thylakoids

D. Individual thylakoids present in stroma

Answer: C

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147. Number of grana present in a chloroplast is

A. 10-20

B. 20-30

C. 30-40

D. 40-60

Answer: D

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148. Number of thylakoids membrane involved in ATP synthesis are called

B.5 - 10

C. 100-200

D. 200-500

Answer: A

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149. Particles of thylakoid membranes involved in ATP synthesis is

A. Quantasomes

B. $CF_0 - CF_1$

C. Photosystems

D. Pyrenoids

Answer: B

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150. Structure associated with chloroplast of green algae is

A. Pyrenoid

B. Stigma

C. Both A and B

D. Endoplasmic reticulum

Answer: C

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151. Peroxisomes and glyoxysomes are

A. Energy transforming organelles

B. Membrane -less organelles

C. Macrobodies

D. Microbodies

Answer: D

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152. Q. Cell organelle covered by a single unit membrane is

A. a) Sphaerosomes

B. b) Peroxisomes

C. c) Glyoxisomes

D. d) All the above

Answer: D

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153. Microbody present only in plants is

A. Sphaerosome

B. Peroxisome

C. Glyoxysome

D. Both B and C

Answer: A



154. Microbodies resemble mitochondria in

A. Using oxygen

B. Producing reducing power

C. Having catalase

D. Fomation of ATP

Answer: A

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155. Q. New spherosomes develop from

A. a) Old sphaerosomes

B. b) E.R.

C. c) Golgi apparatus

D. d) Prospherosomes

Answer: B



156. Sphersomes are involved in

A. Utilisation of alcohol

B. Storage of fat

C. Synthesis and storage of fat

D. Prospherosomes

Answer: C Watch Video Solution

157. Scientist credited with discovery of sphaerosome is

A. Rhodin

B. Perner

C. Koltzoff

D. Claude

Answer: B

Watch Video Solution

158. Enzyme catalase occurs in

A. Lysosome

B. Sphaerosome

C. Peroxisome

D. Peroxisome and glyoxysome

Answer: D

Watch Video Solution

159. Peroxisome was discovered by

A. De Duve

B. Rhodin

C. De Robertis and Franchi

D. Beevers

Answer: A

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160. Major function of peroxisomes is oxidation of

A. Excess purine

B. Surplus amino acids

C. Alcohol and drugs

D. All the above

Answer: D



161. Glyoxysomes occur in

A. Leaf cells

B. Fatty seeds

C. Roots

D. Meristematic cells

Answer: B

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162. Glyoxisomes are useful in

A. Converting sugars to fats

B. Converting fats to sugars

C. Deamination and converting amino acids to fatty acids

D. Amination and changing fatty acids to amino acids

Answer: B



163. The term cytoskeleton was given by

(a) Koltzoff

(b) Rhodin

(c) Menke

(d) Park

A. Koltzoff

B. Rhodin

C. Menke

D. Park

Answer: A

Watch Video Solution

164. A microtubule has a diameter of

A. 100Ã. . .

B. 150Ã...

C. 250Ã. . .

D. 100 nm

Answer: C





165. A microtubule is made of

A. Protofilaments

B. Microfilaments

C. Microfibrils

D. Elementary fibrils

Answer: A

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166. Number of protofilaments in microtubule is

B. 13

C. 16

D. 18

Answer: B



167. Microfilaments were discovered by

(a) Slautterback

(b) Paleviz et al

(c) Altman

(d) Ledbetter and Porter

A. Slautterback

B. Paleviz et al

C. Altman

D. Ledbetter and Porter

Answer: B

Watch Video Solution

168. Cell polarity is determined by

- (a) Intermediate filaments
- (b) Microtubules
- (c) Protofilaments
- (d) Centrioles
 - A. Intermediate filaments
 - **B.** Microtubules
 - C. Protofilaments

D. Centrioles

Answer: B



169. Which one provides support to microvilli, membrane rufflings and pseudopodia

A. Microfilaments

B. Desmin and vimentin filaments

C. Microtubules

D. E.R.

Answer: A

Watch Video Solution

170. The contractile constituent of cytoskeleton is

A. Microtubules

B. Intermediate filaments

C. Microfilaments

D. Microfibrils

Answer: C

Watch Video Solution

171. Tonofilbrils are

A. Intermediate filaments

B. Microfilaments

C. Cross-linked microtubules

D. Both A and B

Answer: A



172. The centriole pair occurs in a complex called

A. Centrosome

B. Centromere

C. Kinetochore

D. Basal plate

Answer: A

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173. The two centrioles of a pair occur

A. Parallel to each other

B. At right angles to each other

C. At an angle other than $90^{\,\circ}$

D. End to end

Answer: B

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174. Centrosome was discovered by

A. Boveri

B. Porter

C. Thompson

D. Schimper

Answer: A



175. Cell organelle having a cartwheel constitution is

(a) Centriole and basal body

(b) Microtubule

(c) Microfilament

(d) Basal plate

A. Centriole and basal body

B. Microtubule

C. Microfilament

D. Basal plate

Answer: A

Watch Video Solution

176. Pattern of organisation in centrioles is

(a) 9+2

(b) 9+3

(c) 9+0

(d) 9+1

A. 9+2

B. 9+3

C. 9+0

D. 9+1

Answer: A

D Watch Video Solution

177. Pattern of organisation in centrioles is

(a) 9+2

(b) 9+3

(c) 9+0

(d) 9+1

A. 9+0

B. 9+3

C. 9+2

D. 9+3

Answer: C

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178. Doublet fibrils of a cilium or flagellum are tilted at an angle of

A. (a) 5°

B. (b) 10°

C. (c) 15°

D. (d) 20°

Answer: B



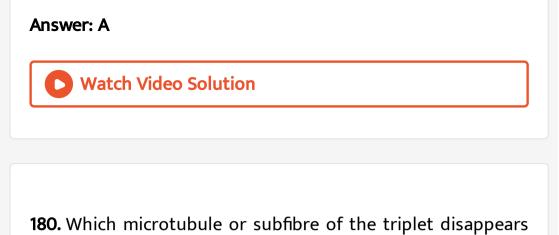
179. Triplet fibrils of a centriole are tilted at an angle of

A. 40°

B. 30°

C. 20°

D. 10°



while passing through basal plate

A. C

B. A

С. В

D. None of the above

Answer: A

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181. Number of dynein arms

A. Four attached to subfibre B

B. Two attached to subfibre B

C. Two attached to subfibre A

D. Four attached to subfibre A

Answer: C

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182. Cilium or flagellum is structurally bilateral due to presence of

A. central sheath

B. Singlet fibrils

C. Double bridge

D. Both B and C

Answer: D



183. A cilium beats

A. Asymmetrically by sweeping action

B. Symmetrically by sweeping action

C. Symmetrically by undulatory action

D. Asymmetrically by undulatory action

Answer: A

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184. A flagellum beats

A. Independently, undulatory and asymmetrically

B. Independently, undulatory and symmetrically

C. Coordinated, pendular and symmetric

D. Coordinal, pendular and asymmetric

Answer: B

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185. The coordianted beating of cilia is

A. Undulatory

B. Metachronous

C. Metachronous or isochronous

D. Both A and B

Answer: C

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186. Vacuoles are

A. Cytoplasmic organelles

B. Non-cytoplasmic organelles

C. Non-cytoplasmic sacs

D. Cytoplasmic sacs

Answer: C

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187. Contractile vacuoles take part in

A. Storage of wastes

B. Osmoregulation

C. Excretion

D. Both B and C

Answer: D



188. Filling of contractile vacuole and its swelling is called

A. Diastole

B. Diapause

C. Systotle

D. Both A and B

Answer: A

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189. Bursting of contractile vacuole to throw its contents is

A. Ephagy

B. Systole

C. Diapause

D. Dehydration

Answer: B



190. Number of sap vacuoles present in an animal cell is

A. One and large

B. many and large

C. Many and small

D. None of the above

Answer: C

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191. A single large central vacuole occurs in

A. Mature animal cell

B. Mature plant cell

C. Developing animal cells

D. Developing plant cells

Answer: B

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192. Liquid content of a vacuole is called

A. Cell sap

B. Matrix

C. Nucleoid

D. Core

Answer: A

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193. Nucleus was discovered by Robert Brown in

A. Orchid root cells

B. Bean root cells

C. Maize stem cells

D. Wheat stem cells

Answer: A

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194. A plant (cell) having more than two nuclei is known as

A. Syncytial

B. Coenocyte

C. Polynucleate

D. Plasmodium

Answer: B



195. An animal cell with numerous nuclei is called

A. Coenocyte

B. Syncytial

C. Plasmodium

D. Both A and B

Answer: B



196. Nucleoplasm is also called

A. Nuclear sap

B. Karyolymph

C. Both A and B

D. Nuclear matrix

Answer: C



197. Nucleus controls cytoplasmic functioning by sending out

A. Cholesterol

B. Protein

C. RNAs

D. DNA copies

Answer: C

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198. Chromatin material which remains condensed during interphase is called

A. Heterochromatin

B. Euchromatin

C. Chormonemata

D. Megachromatin

Answer: A

199. Assertion : Heterochromatin is genetically inactive.

Reason.: It lacks genes.

A. Very active

B. Inert

C. very active gentically

D. Inert metabolically

Answer: B



200. Nucleolus was discovered by

A. Robert Brown

B. Leeuwenhoek

C. Robert Hooke

D. Fontana

Answer: D



201. Nucleolus contains

A. Genetic insturctions

B. Ribsome assemble line

C. Protein synthesis machinery

D. Enzymes for polysaccharide formation.

Answer: B

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202. Nucleolus is formed from

A. Nucleus

B. Nuclear sap

C. Sat chromosome

D. Giant chromosome

Answer: C

203. Components of nucleolus are

A. Karyotheca, nucleolus, chromatin, nucleoplasm and

nuclear matrix

B. Nuclear envelope , nucleolus, chromatin nad

nucleoplasm

C. Nuclear envelope, nucleoplasm and chromatin

D. All the above

Answer: A



204. Dense fibrous complex lying adjacent to inner membrane of nuclear envelope is

(A) Chromatin

(B) Fibrous lamina

(C) Nuclear lamina

(D) Both B and C

A. Chromatin

B. Fibrous lamina

C. Nuclear lamina

D. Both B and C

Answer: D

205. Structural elements of chromatin is

A. Histone

B. Acid protein and DNA

C. Nucleosome

D. Nuclear matrix

Answer: C

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206. The term 'Chromatin was coined by

A. Heitz

B. Flemming

C. Fontana

D. Bowman.

Answer: B

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207. The term nucleoplasm was given by

A. Strasburger

B. Flemming

C. Harris and James

D. Bowman.

Answer: A



208. Constitutive heterchromatin is

A. Condensed chromatin

B. present in all cells

C. Made of repetitve bases

D. All the above

Answer: D

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209. Nonliving cell inclusions are called

A. Ergastic substances

B. Deuteroplasmic substances

C. Paraplasmic substances

D. All the above

Answer: D



210. Idioblast is

A. Plant cell different from others

B. Plant cell having cell inclusions

C. Both A and B

D. Animal cell different from others.

Answer: C

- 211. Alkaloids are
- (a) Sour acidic substance
- (b) Bitter basic substances
- (c) Sweet neutral substances
- (d) Tasteless ingredients
 - A. Sour acidic substance
 - B. Bitter basic substances
 - C. Sweet neutral substances
 - D. Tasteless ingredients

Answer: B

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212. Asafoetida is

(a) Alkaloid

(b) Oil

(c) Resin

(d) Tannin

A. Oleoresin

B. Gum resin

C. Hard resin

D. None of the above

Answer: B

- **213.** Resin got from Pinus is
- (a) Hard resin
- (b) Mixture of resin and latex
- (c) Oleoresin
- (d) Gum resin
 - A. Hard resin
 - B. Mixture of resin nd latex
 - C. Oleoresin
 - D. Gum resin

Answer: C

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214. A resin obtained from animals is

- (a) Damar
- (b) Shellac
- (c) Salai
- (d) Dhaora
 - A. Damar
 - B. Shellac
 - C. Salai
 - D. Dhaora

Answer: B

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215. An alkaloid used as drug is

A. Quinine

B. Reserpine

C. Atropine

D. All the above

Answer: D

216. Tannins are

A. Sweet

B. Sour

C. Astringent

D. Mucopolysaccharides

Answer: C

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217. Tannins are used in

A. Dyeing

B. Inks

C. Treating hides

D. All the above

Answer: D

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218. Water soluble yellowish pigment present in petals of

Dahlia is

(a) Carotene

(b) Xanthophyll

(c) Anthoxanthin

(d) Anthocyanin

A. Carotene

B. Xanthophyll

C. Anthoxanthin

D. Anthocyanin

Answer: C

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219. Silica incrustation is found on the leaf surface in

- (a) Mango
- (b) Grasses
- (c) Castor
- (d) Oleander

A. Mango

B. Grasses

C. Castor

D. Oleaner

Answer: B



220. Dry scales of Onion possess in their cells

A. Raphides

B. Prismatic crystals

C. Sphaeraphides

D. Crystal sand

Answer: B



221. Crystal sand found in Atropa cells is made of

A. Calcium oxalate

- B. Calcium carbonate
- C. Silica
- D. Silica and iron

Answer: A



222. A star -shaped mass of crystals of calcium oxalate found

in the cells of Chenopodium and Colocasia is called

A. Crystal sand

B. Sphaeraphide

C. Druse

D. Both B and C

Answer: D



223. Chromomeres were discovered by

A. Strasburger

B. Van Beneden

C. Pfitzner

D. Winiwater

Answer: C

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224. NOR is

A. Nucleotide organising replicase

B. Nucleotide occluding region

C. Number of replicons

D. Nucleolar organising region

Answer: B

225. The term chromosome was introduced by

- (a) Strasburger
- (b) Benda
- (c) Waldeyer
- (d) Hofmeister
 - A. Strasburger
 - B. Benda
 - C. Waldeyer
 - D. Hofmeister

Answer: C



226. If the centromere is terminal, the chromosome is

A. Metacentric

B. Submetacentric

C. Telocentric

D. Acrocentric

Answer: C

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227. In salivary gland chromosomes/polytene chromosomes

pairing is

A. Absent

B. Occasional

C. Formed between nonhomologus chromosomes

D. Formed between homologous chromosomes

Answer: D



228. Polytene chromosome was first observed by

- (a) Stevens and Wilson
- (b) Heitz and Bauer
- (c) Balbiani
- (d) Khorana

A. Stevens and Wilson

B. Heitz and Bauer

C. Balbiani

D. Khorana

Answer: C

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229. Chromosomes were first seen by

(a) Hofmeister

(b) Waldeyer

(c) Walter S. Sutton

(d) Crick and Watson

A. Hofmeister

B. Waldeyer

C. Water S. Sutton

D. Crick and Watson

Answer: A

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230. [A] : Chromosome number is halved during telophase I .

[R] : Chromosomes whose arms are equal are called submetacentric.

A. Metacentric

B. Acrocentric

C. Polycentric

D. Acentric

Answer: A



231. The diagrammatic representation of chromosomes is

known as

A. Genome

B. Karyotype

C. Idiogram

D. None of the above

Answer: C



232. Eukaryotic chromosomes are composed of

(a) DNA + Protein

(b) DNA + RNA

(c) RNA + Protein

(d) Only DNA

A. DNA + Protein

B. DNA + RNA

C. RNA + Protein

D. Only DNA

Answer: A

233. Chromosomes other than sex chromosomes are called

(a) Allosomes

(b) Autosomes

(c) Microsomes

(d) None of the above

A. Allosomes

B. Autosomes

C. Microsomes

D. None of the above

Answer: B



234. Lampbrush chromosomes are also called displotene chromosomes because they

A. Show chiasmata

B. Resemble diplotene chromosomes

C. Are in permanent diplotene stage

D. All the above

Answer: D

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235. During staining, chromosomes get stained with

A. Eosine

B. Borax carmine

C. Acetocarmine

D. Safranin

Answer: C



236. The hereditary vehicle is

A. Chromosome

B. Centromere

C. Nucleus

D. Nucleolus

Answer: A

- 237. Balbiani rings are
- (a) Uncoiling of chromonemata
- (b) Coiling of chromonemata
- (c) Enlargements of centromere
- (d) None of the above
 - A. Uncoiling of chromonemata
 - B. Coiling of chromonemata
 - C. Enlargements of centromere
 - D. None of the above

Answer: A

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238. Polytene chromonemata in Drosophila is

- (a) 10 times larger than somatic chromosome
- (b) 50 times larger than somatic chromosome
- (c) 10 to 50 times larger than somatic chromosome
- (d) About 500 times larger than somatic chromosome
 - A. 10 times larger than somatic chromosome
 - B. 50 times larger than somatic chromosome
 - C. 10 to 50 times larger than somatic chromosome
 - D. About 500 times larger than somatic chromosome.

Answer: D

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239. Satellite means

(a) Terminal part of the chromosome beyond secondary constriction

(b) Terminal part of the chromosome beyond primary constriction

(c) Terminal part of chromosome beyond tertiary constriction

(d) None of the above

A. Terminal part of the chromosome beyond secondary constriction

B. Terminal part of the chromosome beyond primary

constriction

C. Terminal part of chromosome beyond tertiary

constriction

D. None of the above

Answer: A

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240. A constriction on the chromosome is

A. Centromere

B. Centresome

C. Centriole

D. Chromomere.

Answer: A

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241. Chromosome banding was discovered by

A. Casperson et al

B. Muller

C. Berg et al

D. Christian de Duve

Answer: A



242. Banding techniques used in case of plant chromosomes

are

A. G and R

B. C and G

C. C and N

D. Q and R

Answer: C

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243. The term cell membrane was coined by

A. Nageli and Cramer

B. Flemming

C. Sachs

D. Plower

Answer: A



244. The term plasmalemma was coined by

A. Robertson

B. Plowe

C. Strasburger

D. Overton

Answer: B

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245. Cell membrane is visible under

A. Electron microscope

B. Optical microscope

C. Both optical and electron microscope

D. Oil immersion lens

Answer: A

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246. The average thickness of plasma membrane is

A. $0.25 nm/2.5 ilde{A}...$

 $\mathsf{B.}\,2.5nm/25\tilde{\mathsf{A}}\ldots$

C. $0.75nm/7.5\tilde{A}...$

D. 7.5nm/75Ã...

Answer: D



247. Cell membrane is

A. Unilaminar

B. Bilaminer

C. Trilaminer

D. Quadrilaminar

Answer: C

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248. Tripartile nature of plasmalemma was discovered by

A. Davson

B. Robertson

C. Danielli

D. Both A and B

Answer: B



249. Who proposed the first lameller model of biomembranes

A. Danielli and Davson

B. Robertson

C. Helleir and Hoffmann

D. Singer and Nicolson

Answer: A

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250. The concept of unit membrane was propounded by

(a) Danielli

(b) Davson

(c) Robertson

(d) Both a and b

A. Overton

B. Gorter and Grendel

C. Davson

D. Robertson

Answer: D

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251. Cell membrane is composed of

A. Phospholipid

B. Nucleoprotein

C. Polysaccharides

D. Lipoprotein

Answer: A



252. Biomembranes are similar to "protein icebergs in sea of

lipids "was saying of

A. Singer and Nicolson

B. Danielli and Davson

C. Gorter and Grendel

D. Helleir and Hoffmann

Answer: A

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253. A cell membrane has

A. Middle electron dense layer

B. Middle electron transparent layer

C. Outer electron transparent layer

D. Inner electron transparent layer

Answer: B

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254. Which one forms the continuous part of cell membrane

A. Proteins

B. Carbohydrates

C. Lipids

D. All the above

Answer: C

Watch Video Solution

255. Plasmalemma is

A. Permeable

B. Selectively permeable

C. Non-permeable

D. Semispermeable

Answer: B

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256. The process of taking in liquid material by infolding of

membrane is known as

A. Phagocytosis

B. Osmosis

C. Active transport

D. Pinocytosis

Answer: D



257. Taking in of food particles or foreign bodies through cell

membrane is

A. Phagocytosis

B. Pinocytosis

C. Osmosis

D. Active transport

Answer: A



258. Pinocytosis was studied for the first time by

A. Metchnikoff

B. Lewis

C. Plowe

D. Nageli

Answer: B

D Watch Video Solution

259. Ribosomes are the centre for

A. Respiration

B. Photosynthesis

C. Protein synthesis

D. Fat systhesis

Answer: C

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260. The following are called "Suicidal bags"

A. Centrosome

B. Lysosomes

C. Microsomes

D. Mesosomes

Answer: B

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261. Cell organelles are embedded in

A. Cytoplasmic membrane

B. Protoplasm

C. Cytoplasm

D. None of the above

Answer: C

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262. Branch dealing with study of cell is

A. Histology

B. Cytology

C. Morphology

D. Anatomy

Answer: B

Watch Video Solution

263. Cell organelles having hydrolases/digestive enzymes are

A. Peroxisome

B. Lysosomes

C. Ribosomes

D. Mesosomes

Answer: B



264. Outermost layer of cell wall is

A. Plasmalemma

B. Secondary wall

C. Middle lamella

D. Primary wall

Answer: D

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265. Mitochondria do not occur in

A. Human liver cell

B. Human nerve cell

C. Human erythrocyte

D. Frog liver cell

Answer: C

Watch Video Solution

266. Plasmodesmata are cytoplasmic bridges between adjacent plant cells, lined by___and often have desmotubules.

A. Ectodesmata

B. Desmososmes

C. Protoplasmic fibrils

D. Plasmodesmata

Answer: D Watch Video Solution

267. Oxysomes/Elementary particles/ $F_0 - F_1$ particles are centre of oxidative phosphorylation and found in

A. Thylakoids

B. Mitochondrion surface

C. Inner mitochondrial membrane

D. Chloroplast surface

Answer: C

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268. Conversion of green tomatoes into red form involves

A. Formation of chromoplasts from chloroplasts

B. Destruction of chloroplasts and development of

chromoplasts from leucoplasts

C. Formation of chromoplasts from proplastids

D. All the above

Answer: A

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269. The functional unit of Golgi apparatus is

A. Thylakoids

B. Oxysomes

C. Cristae

D. Cisternae

Answer: D



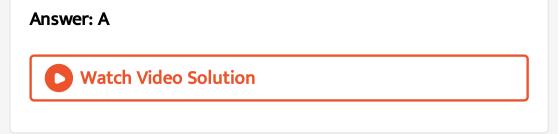
270. Golgi complex is specialized for

A. Glycoisdation of lipids and proteins

B. Conversion of light energy into chemical energy

C. Energy transduction

D. Digestion of carbohydrates and proteins



271. Chromosomes present in prolonged prophase in the salivary glands of Drosophila are

A. Polytene

B. lampbrush

C. B-Chromosomes

D. Supernumerary chromosomes

Answer: A

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272. Chromsomes end is called

A. Telomere

B. Centromere

C. Satellite

D. Metamere

Answer: A



273. According to fluid mosaic model, plasma membrane is composed of

A. Phospholipids and oligosaccharides

B. Phospholipids and hemicellulose

C. Phospholipids and integral proteins

D. Phospholipids extrinsic proteins and intrinsic proteins

Answer: D



274. Power House of the Cell

A. Chloroplasts

B. Mitochondria

C. Golgi bodies

D. Nucleoli

Answer: B

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275. Ribosome units are synthesised are considered to be endosymbionts of cell because they

A. Nucleus

B. Nucleolus

C. Nuclear pore complex

D. Cytoplasm

Answer: B

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276. Mitochondria and chloroplast are considered to be endosymbionts of cells because they

A. Donot raise de novo

B. Posses their own nucleic acids

C. Have membranes similar to those of bacteria

D. All the above

Answer: D

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277. Acetabularia used in Hammerling's nucleocytoplasmic

experiments is

A. Unicellular fungus

B. Multicellular fungus

C. Unicellular uninucleate green alga

D. Unicellular multinucleate green alga

Answer: C

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278. Water soluble pigment found in plant cell vacuoles are

A. Anthocyanin

B. Carotene

C. Xanthophyll

D. Chlorophyll

Answer: A

Watch Video Solution

279. Plasma membrane is made of

A. Protein

B. Lipids

C. Carbohydrates

D. Both A and B

Answer: C

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280. Polyribosomes are aggregation of

A. Ribosomes and RNA

B. Only rRNA

C. Peroxisome

D. Several ribosomes held together by string of mRNA

Answer: D

Watch Video Solution

281. Smooth endoplasmic reticulum synthesis

A. Carbohydrates

B. Proteins and lipids

C. Steriods and lipids

D. All the above

Answer: C

Watch Video Solution

282. DNA occurs in

A. Mitrochondria, plastids and Chromosomes

B. Chromosomes, Mitochondria and Ribosomes

C. Chromosomes, Mitochondria and cell Membrane

D. Chromosomes, Ribosomes and Cytoplasm

Answer: A



283. Inner mitochondrial membrane possesses enzymes

A. ATP-synthetase, succinate dehydrogenase and

respiratory chain enzymes

B. NADH-cytochrome reductase and monomeric oxidase

C. Malate and isocitrate dehydrogenases, fumarate,

aconitase and citrate synthetase

D. Adenylate kinase and nucleoside diphosphokinase

Answer: A

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284. The latest model of cell membrane is the

A. Lamellar model

B. Unit membrane model

C. Fluid mosaic model

D. Molecular lipid model

Answer: C

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285. Ribosomes were first observed under the EM as dense

particles by

A. Golgi

B. Porter

C. De Robertis

D. Palade

Answer: D



286. A cell organelle with folded inner membrane is disrupted with ultrasonic breaker . Its fragments can synthesise ATP. The organelle is

A. Ribosome

B. Centrosome

C. Chloroplast

D. Mitochondrion

Answer: D

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287. Elements present in middle lamella is

A. Calcium

B. Potassium

C. Sodium

D. Iron

Answer: A



288. Q. Ribosomes were first seen by

A. Claude

B. Porter

C. Palade

D. Brown

Answer: A

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289. Hammerling's experiments of Acetabularia involved exchanging

A. Cytoplasm

B. Nucleus

C. Rhizoid and stalk

D. Gametes

Answer: C



290. Cell organelle taking part in photorespiration is

A. Glyoxisome

B. Peroxisome

C. Dictyosome

D. E.R.

Answer: B

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291. Which one is common amongst nucleus , chloroplast and

mitochondria?

A. Cristae

B. Thylakoids

C. Nucleic acid

D. Carbohydrate metabolism.

Answer: C

292. Fluid-mosaic model of plasma membrane was proposed

by

A. Danielli and Davson

B. Singer and Nicolson

C. Garner and Allard

D. Watson and Crick

Answer: B



293. Electron microscope has revealed the presence of or Which among the following can be seen only under electron microscope

A. Ribosomes

B. Chromosomes

C. Chloroplast

D. Leucoplast

Answer: A

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294. The vacuole contains :

A. Water

B. Metabolic gases

C. Water and dissolved substances

D. Cytoplasm

Answer: C

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295. Tonoplast , a differentially permeable membrane surrounds

A. Vacuole

B. Nucleus

C. Cytoplasm

D. Lysosome

Answer: A

296. Lysosomes were first discovered by

A. Palade

B. de Duve

C. Porter

D. Golgi

Answer: B

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297. Centriole/centrosome takes part in

A. Nucleolus formation

B. Start of cell division

C. Cell plate formation

D. Spindle formation

Answer: D

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298. Function of the cell is controlled by

A. Protoplasm

B. Cytoplasm

C. Nucleolus

D. Nucleus

Answer: D



299. Which organelle is absent in animal cell?

A. Chloroplasts

B. Golgi apparatus

C. E.R.

D. Lysosome

Answer: A

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300. Cell wall shows

A. Complete permeability

B. Semipermeability

C. Differential permeability

D. Impermeability

Answer: A



301. Balbiani rings occur in

A. Lampbrush chromosome

B. Heterosome

C. Allosome

D. Polytene chromosome

Answer: D

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302. Best stage to observe shape, size and number of chromosomes is

A. Interphase

B. Metaphase

C. Prophase

D. Telephase

Answer: B

303. Lysosomes are called suicidal bags because of

A. Hydrolytic enzymes

B. Parasitic activity

C. Food vacuole

D. Catabolic enzymes

Answer: A

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304. Folding of inner mitochondrial membrane are called

A. Grana

B. Thylakoids

C. Cristae

D. $f_0 - F_1$ structures

Answer: C

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305. All plastids have similar structure because they can

A. Store starch, lipids and proteins

B. Perform same function

C. Control same function

D. Both present together

Answer: B



306. An outer covering membrane is absent over

A. Nucleolus

B. Lysosomes

C. Mitochondrion

D. Plastid

Answer: A

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307. Chloroplasts are self replicating units as they possess

A. DNA

B. RNA

C. Neither DNA nor RNA

D. Both DNA and RNA

Answer: D



308. The colour of chromoplast can be

A. Yellow

B. Red

C. Orange

D. All the above

Answer: D

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309. The filaments present in cilia and flagella are composed

of

A. Microfibrils

B. Microtubules

C. Microfilaments

D. Microvilli

Answer: B

310. Factory for synthesis of sugar in autotrophic eucaryotes

is

A. Chloroplasts

B. Mitochondrion

C. Endoplasmic reticulum

D. Ribosomes

Answer: A

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311. Smallest cell organelles are

A. Lysosome

B. Sphaerosomes

C. Peroxisomes

D. Ribosomes

Answer: D



312. Which one is apparato reticolare interno?

A. Golgi apparatus

B. Endoplasmic reticulum

C. Microfilaments

D. Microtubules

Answer: A

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313. Role of nucleus in morphological differentiation was discovered in

A. Acetabularia by Hammerling

B. Drosophila by Morgan

C. Neurospora by Morgan

D. Garden Pea by Beadle and Tatum

Answer: A

314. Experiments on Acetabularia by Hammerling proved the

role of

A. Cytoplasma in controlling differentiation

B. Nucleus in heredity

C. Chromosomes in heredity

D. Nucleo-cytoplasmic ratio

Answer: B

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315. Membrane bound Krebs cycle enzyme is

A. Fumarase

B. Cis-aconitase

C. Succinic dehydrogenase

D. Malate dehydrogenase.

Answer: C

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316. Correct sequence of protein (P) and lipid (L) in cell membrane is (as per lamellar model)

A. L-P-L-P

B. L-P-P-L

C. P-L-L-P

D. P-P-L-L

Answer: C Watch Video Solution

317. Cell recognition and adhesion are facilitated by components of plasma membrane. These components are generally

A. Proteins

B. Lipids

C. Proteins and lipids

D. Glycoproteins and glycolipids

Answer: D



318. RER is well developed in cells engaged in synthesis of

A. Nucleotides

B. Proteins and lipids

C. Lipids

D. Secretory products

Answer: D

Watch Video Solution

319. Golgi apparatus is absent in

A. Higher plants

B. Yeast

C. Bacteria and Blue -green algae

D. Liver cells

Answer: C



320. Membranous bag with hydrolytic enzymes which is used

for controlling intracellular digestion of macromolecules is

A. Endoplasmic reticulum

B. Nucleosome

C. Lysosomes

D. Phagosome

Answer: C

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321. Outer and inner membrane of mitochondria are

A. Structurally and functionally similar

B. Structurally and functionally dissimilar

C. Structurally similar but functionally different

D. Structurally different but functionally similar.

Answer: B

322. Peroxisomes found in green cells of leaves are associated with

A. Photorespiration

B. Phototropism

C. Photoperiodism

D. Photosynthesis

Answer: A

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323. Plant cell wall consists of

A. Lignin, hemicellulose , pectin and lipid

B. hemicellulose, pectin, protein, and lipid

C. Cellulose , hemicellulose, pectin and lignin

D. Cellulose, hemicellulose , tubulin and lignin

Answer: C



324. Glyoxysomes are connected with metabolism of

A. Fats

B. Proteins

C. Carbohydrates

D. All the above

Answer: A

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325. Match List I and List II and select the correct answer

using the code given below the lists

$\operatorname{List} \mathrm{I}$	List II
Microtubules	Structural components of cilia
Centrioles	Store hydrolytic enzymes
Peroxisomes	Store oil protein and starch in plants

A. 1 and 3 correct, 2 false

B. 1 correct, 2 and 3 false

C. 1,2 and 3 correct

D. 1 and 2 correct, 3 false

Answer: B



326. Balbiani rings (puffs) are sites of

A. DNA replication

B. RNA and protein synthesis

C. Synthesis of polysaccharides

D. Synthesis of lipids

Answer: B



327. Ribosomes of bacteria mitochondria and chloroplasts

are of

A. 50 S type

B. 80 S type

C. 70 S type

D. 30 S type

Answer: C

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328. In mitochondria, cristae act as sites for

A. Breakdown of macromolecules

B. Protein systhesis

C. Phosphorylation of flavoproteins

D. Oxidation -reduction reactions

Answer: D

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329. Organelle having flattened membrane bound cisternae

and lying near the nucleus is

A. Golgi apparatus

B. Mitochondrion

C. Centriole

D. Nucleolus.

Answer: A

330. Centriole occur in

A. Centrosomes

B. Centromeres

C. Chromosomes

D. Spindle fibres

Answer: A

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331. Lysosomes are so called as they have

A. Oxidising

B. Digestive enzymes

- C. Respiratory enzymes
- D. Carboxylating enzymes

Answer: B

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332. Nucleolus takes part in synthesis of

A. rRNA

B. tRNA

C. mRNA

D. DNA

Answer: A



333. The colour or rose petals is due to water soluble pigments present in the

A. Cytoplasm

B. Intercellular spaces

C. Nucleus

D. Vacuoles

Answer: D



334. In rapidly dividing cells, endoplasmic reticulum is

A. Non - functianl

B. Poorly devloped

C. Absent

D. Highly develped

Answer: B

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335. Plants, but not animals, can convert fatty acids to sugars

by a series of reactions called

A. Krebs cycle

B. Glyoxylate cycle

C. Ornithine cycle

D. Glycolysis

Answer: B



336. Metachromosome with medial centromere and equal arms is

A. Telocentric

B. Acrocentric

C. Metacentric

D. Submetacentric

Answer: C

337. The phagocytosis was first of all seen by

A. Huxley

B. Strasburger

C. Haeckel

D. metchnikoff

Answer: D

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338. Ribosomes are composed of

A. DNA and protein

B. DNA alone

C. RNA and proteins

D. RNA and DNA

Answer: C



339. Double membrane is absent in

A. Mitochondia

B. Chlorolpast

C. Nucleus

D. Lysosome

Answer: D

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340. Site for protein/peptide synthesis is

A. Pyrenoid

B. Chloroplast

C. Ribosome

D. Mitochondrion

Answer: C

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341. ETC is component of

A. Golgi apparatus

B. Mitochondria

C. Nucleus

D. Micoutubules

Answer: B

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342. A unit membrane is absent over

A. Lysosome

B. Microbody

C. Golgi apparatus

D. Ribosomes

Answer: D

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343. Agranal chloroplasts are found in

A. Succulents

B. Hydrophytes

C. C_4 plants

D. Ribosomes

Answer: C



344. A single unit membrane surrounds the organelle

A. Nucleus

B. Mitochondrion

C. Lysosomes

D. Chloroplast

Answer: C



345. Amyloplasts store

A. Glycogen

B. Starch

C. Fat

D. Protein

Answer: B



346. Glycolate metabolism occurs in

A. Lysosome

B. Ribosomes

C. Glyoxysomes

D. Peroxisome

Answer: D

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347. Circular DNA occurs in

A. Bacteria only

B. Bacteria and chloroplasts

C. All viruses

D. Bacteria, chloroplasts and mitochondria

Answer: D

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348. The point at which the polytene chromosomes appear to

be attached together is known as

A. Centriole

B. Chromocentre

C. Chromomere

D. Centromere

Answer: B

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349. which one is without an external covering ?

A. Lysosome

B. Gogli apparatus

C. Centrosome

D. Centrioles

Answer: C



350. the term thylakiod was coined by

A. Arnon

B. park and Biggins

C. Menke

D. Willstatter

Answer: C

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351. The function of mitochondria is

A. Secretion

B. Excretion

C. Osmoregulation

D. Respiration

Answer: D

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352. Which organelle can reduce the number of other organelles ?

A. Oxysome

B. Lysosome

C. Mitochondria

D. None of the above

Answer: B

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353. Thylakoids are present in

A. Mitochondria

B. Chloroplasts

C. Golgi apparatus

D. Endoplasmic reticulum

Answer: B



354. The vacuole is lined by a membrane called

A. Tonoplast

B. Plasmalemma

C. Cell membrane

D. Cell wall

Answer: A

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355. Anthocyanin occurs in

A. Chloroplasts

B. Vacuole

C. Leucoplasts

D. Chromoplast

Answer: B

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356. Autolysis is connected with

(a) Ribosome

(b) Kinetosome

(c) Lysosome

(d) Golgi apparatus

A. Ribosome

B. Kinetosome

C. Lysosomes

D. Golgi apparatus

Answer: C

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357. Nucleus was discovered by

A. Purkinje

B. Nageli

C. Brown

D. Hofmeister

Answer: C

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358. Which one is present on chromosome?

A. Centromere

B. Centrosome

C. Nucleus

D. Golgi body

Answer: A

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359. Lampbrush chromosomes are seen in which typical stage?

A. Meiotic metaphase

B. Mitotic metaphase

C. Mitotic prophase

D. Meiotic prophase

Answer: D



360. Basophilic ergastoplasm of gland cells indicates richness

of

A. Ribosomes

B. Golgi bodies

C. Mitochondria

D. DNA

Answer: A



361. Organelle involved in transformation of cell membranes

is

A. Endoplasmic reticulum

B. Lysosomes

C. Golgisome

D. Mesosomes

Answer: C

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362. Lysosomes contain

A. Carbohydrates

B. Hormones

C. Nucleic acid

D. Hydrolases

Answer: D



363. Two animal cells are interconnected by

(a) Plasmodesmata

(b) Cell wall

(c) Desmosome

(d) Plasma membrane

A. Plasmodesmata

B. Cell wall

C. Demosomes

D. Plasma membrane

Answer: C

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364. Plasmalemma is made of

A. A single protein layer

B. Single lipid layer

C. two lipid layer and proteins

D. Single protein and single lipid layer

Answer: C



365. Active transport :

A. Production of ATP

B. Requirement of energy

C. Production of toxin

D. Release of energy

Answer: B



366. GERL is associated with

A. Lysosome

B. Golgi body

C. Mitochondrion

D. Lomasome

Answer: B



367. Protein synthesis in an animal cell occurs

A. Cytoplasm

- B. Cytoplasm as well as mitochondria
- C. Ribosomes attached to nuclear envelope
- D. Nucleolus as welll as cytoplasm

Answer: B

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368. which does not occur in the cells of higher plants

A. spindle

B. Centriole

C. Centromere

D. Cell plate

Answer: B

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369. The term mitochondria was given by

A. Kolliker

B. Benda

C. Flemming

D. Cell plate

Answer: B

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370. Nissl granules are made up of

A. RER

B. SER

C. DNA

D. Golgi Bodies

Answer: A

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371. The membrane of endoplasmic reticulum remains continuous with membrane of

A. Mitochondria

B. Golgi bodies

C. Nuclear envelope

D. Chloroplasts

Answer: C



372. Centrioles and centrosomes occur in the cells of

A. Green plants

B. Animals

C. Bacteria and Cyanobacteria

D. Both B and C

Answer: B



373. Nucleus is covered by

A. Porous double membrane

- B. Non-single membrane
- C. Porous single membrane
- D. Non-porous double membrane

Answer: A



374. What would happen if lysosomes get ruptured inside the

cells in which they are present

A. Cell dies

B. Cell skrinks

C. Cell swells up

D. Nothing would happen

Answer: A

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375. A flattened disc-like sturcture present in chloroplast

A. Stroma

B. Thylakoids

C. Loculus

D. Margin

Answer: B



376. Protein synthesis can occur in

A. Mitochondria

B. Chloroplasts

C. Cytoplasm

D. All the above

Answer: D

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377. Which one is non-living cell inclusion ?

A. Golgi complex

B. Centrosome

C. Vacuole

D. Ribosomes

Answer: C

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378. Crystals of calcium carbonate forming bunches in the epidermal cells of certain leaves are

A. Cystoliths

B. Raphides

C. Sphaeraphides

D. Otoliths

Answer: A



379. A chromosome having subterminal centromere is

A. Acrocentric

B. Submetacentric

C. Telocentric

D. Metacentric

Answer: A



380. Granular ER differs from SER in having

A. Ribosomes on its surface

B. No ribosomes

C. Active role in steroid synthesis

D. Both B and C

Answer: A

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381. Membrane syste considered to be extensions of infolded

plasmalemma is

A. Golgi complex

B. Plastids

C. Mitochondria

D. Endoplasmic reticulum

Answer: D

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382. Export house/firm of cell is

A. E.R.

B. Golgi body

C. Nucleus

D. Lysosome

Answer: B



383. Polymorphic cell organelle is

A. Glyoxysome

B. Peroxisome

C. Lysosomes

D. Golgi complex

Answer: C

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384. Detoxification site in liver is

A. Free ribosomes

B. Golgi complex

C. SER

D. RER

Answer: C

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385. Cytoskeleton is made up of

A. Microtubules and E.R.

B. Microtubules and microtubules and microfilaments

C. Cytoplasm

D. Cytoplasm with network of microtubules and

microfilaments.

Answer: B

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386. All are membrane bound cell organelles except

" Or

Which of the following cell organelles lacks a unit membrane

A. Mitochondria

B. Lysosomes

C. Spherosomes

D. Ribosomes

Answer: D



387. Microtubules were discovered by

A. De Robertis and Franchi

B. Robert Brown

C. Kolliker

D. Palade

Answer: A

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388. Cell organelle covered by a single unit membrane is

A. Glyoxysome

B. Lysosome

C. Peroxisome

D. All the above

Answer: D



389. In nucleoplasm, a conspicuous body of spherical shape attached to a particular chromosome on a definite position is called

A. Plasmid

B. Karyolymph

C. Nucleolus

D. Nuclear reticulum

Answer: C



390. Nucleus is absent in

A. Companion cells

B. Sieve tube cells

C. Phleom parenchyma

D. Cambium

Answer: B



391. Function of RER is

A. Autolysis

B. Lipid synthesis

C. Protein synthesis

D. Carbohydrate synthesis

Answer: C

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392. SER is mainly found in cells actively engaged in

(a) Secretion activity

(b) Proteins

(c) Lipid metabolism

(d) Catabolic activity

A. Secretion activity

B. Protein metabolism

C. Lipid metabolism

D. Catabolic activity

Answer: C

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393. Nucleolus is

A. Rounded structure found in cytoplasm near nucleus

B. Rounded structure inside nucleus and having rRNA

C. Rod-shaped structure in cytoplasm near the nucleus

D. None of the above

Answer: B

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394. Oxidative electron transport occurs in

A. Chloroplasts

B. Outer membrane of mitochondria

C. Cristae

D. Endoplasmic reticulum

Answer: C



395. Chloroplasts of algae lack

A. Quantasomes

B. Lamellae

C. Pigments

D. Grana

Answer: D

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396. Mitochondria are absent in

A. Bacteria

B. Red Algae

C. Green Algae

D. Brown Algae

Answer: A



397. Polytene chromosome occur in cells of salivary glands of

A. Some insects

B. Rabbit

C. Humans

D. Mice

Answer: A

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398. Flat membranous bags are characteristic of

A. Peroxisome

B. Mitochondria

C. Lysosomes

D. Golgi bodies

Answer: D

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399.9+0 arrangement is found in

A. Flagellum

B. Centriole

C. Cilium

D. Spindle fibres

Answer: B

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400. Endoplasmic reticulum is more developed in

A. Green cells

B. Young cells

C. Mature cells

D. Bacterophage

Answer: C

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401. Mitochondria are related to

(a) Prokaryotic cells

(b) Plasmids

(c) Prion

(d) Virus

A. Viruses

B. Plasmids

C. Plastids

D. Procaryotes/Bacteria

Answer: C



402. Nucleosome contains

A. Nucleolus

B. Genes

C. Microfilaments

D. Histones

Answer: D



403. Chromatin/chromosome consitsts of

A. DNA

B. RNA

C. RNA and histones

D. DNA and histones

Answer: D

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404. L-shaped chromosomes are called

A. Sex chromosomes

B. Acrocentric

C. Telocentric

D. Submetacentric

Answer: D

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405. Enzymes associated with converting fats to

carbohydrates are located in

A. Liposomes

B. Golgi bodies

C. Glyoxysomes

D. Microsomes

Answer: C



406. Which of the following are covered by a single membrane?

A. Nucleus

B. Mitochondria

C. Plastids

D. Sphaerosomes

Answer: D



407. Lampbrush chromosomes found in oocytes occur in

A. Leptotene

B. Zygotene

C. Pachytene

D. Diplotene

Answer: D

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408. Golgi bodies produce

A. Vesicles

B. Lysosomes

C. Centrosomes

D. Both A and B

Answer: D

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409. Inner membrane of mitochondrion possesses

A. $F_0 - F_1$ particles

B. ATP-ase

C. TCA enzyme

D. All the above

Answer: D

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410. Raphides are formed of

A. Calcium oxalate

B. Calcium carbonate

C. Sodium choride

D. Sodium carbonate

Answer: A

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411. Which type of enzyme occurs in lysosome?

A. Lyase

B. Ligase

C. Hydrolase

D. Transferase

Answer: C

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412. Lampbrush chromosomes are found inside

A. Nucleus of human cells

B. Ocytes of Frog/amphibian

C. Salivary glands of Drosophila

D. Salivary glands of Silk Moth

Answer: B



413. Golgi apparatus is commonly present in

A. Near mitochondria

B. Near chlorophasts

C. Perinuclear area

D. Germ cells

Answer: C

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414. Shape of metacentric chromosome in anaphase is

A. L-shaped

B. V-shaped

C. J-shaped

D. I-shaped

Answer: B



415. Chromosomes appearing rod shaped during anaphase

are

A. Acrocentric

B. Metacentric

C. Submetacentric

D. Telocentric

Answer: D

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416. Semi-autonomous organelle is

A. E.R.

B. Lysosome

C. Peroxisome

D. Chloroplast

Answer: D

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417. Cork cells have a deposition of

A. Pectin

B. Cutin

C. Suberin

D. Lignin

Answer: C

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418. Microtubules take part in

A. Formation of spindle fibres

B. Movement of cilia and flagella

C. Both A and B

D. Cyclosis

Answer: C

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419. Centre of phosphorylation is

A. Ribosome

B. Oxisome

C. Peroxisome

D. Spherosome

Answer: B

420. The cell organelle involved in the glycosylation of proteins is

A. Ribosome

B. E.R.

C. Mitochondrion

D. Chlorophast

Answer: B



421. Secretory functions of cell is carried out by

A. Peroxisome

B. Golgi apparatus

C. Lysosomes

D. Sphaerosomes

Answer: B

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422. Amyloplasts are connected with storage of

A. Starch

B. Fat

C. Glycogen

D. Protein

Answer: A

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423. Histones are

A. Glycoproteins

B. Mucoproteins

C. Basic proteins

D. Acid proteins

Answer: C

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424. Extra chromosomal DNA occurs in

A. Mitochondria

B. Ribosomes

C. Nucleus

D. Chromosomes

Answer: A

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425. Maximum amount of Manganese is found in

A. Ribosome

B. Mitochondrion

C. Chlorophast

D. Nucleus

Answer: B

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426. Apparato reticulo interno was discovered by Golgi in

A. 1898

B. 1900

C. 1925

D. 1928

Answer: A



427. Telomeres

A. Initiate RNA synthesis

B. Help chromatids to move towards poles

C. Seal ends of chromosomes

D. Identify correct members of homologous pairs of

chromosomes

Answer: C



428. Which one is correctly matched

- A. F_1 particle-ribosomes
- B. Lysosome -acrosome
- C. Ribosome-single membrane bound
- D. Chlorophyll a and chlorophyll b-chloroplast

Answer: D

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429. Cristae occur in

A. Golgi body

B. Nucleus

C. Mitochondria

D. E.R.

Answer: C

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430. Protein packaging is done by

A. Nucleolus

B. Ribosomes

C. Golgi apparatus

D. Endoplasmic reticulum

Answer: C



431. Cells which are secretory in function have abundant

A. Dictyosomes

B. E.R.

C. Lysosomes

D. Osteosomes

Answer: A

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432. Which one of the following is absent in eukaryotes

A. Nucleolus

B. Plastids

C. Mesosome

D. Ribosomes

Answer: C

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433. Microfilaments are mainly composed of

A. Tubulin

B. Myosin

C. Actin

D. Keratin

Answer: C



434. An enucleated plant cell is

A. RBC

B. Sieve tube cells

C. Companion cell

D. Xylem parenchyma

Answer: B

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435. Which of the following organelles is present exclusively

in plants?

A. Glyosysome

B. Lysosome

C. Peroxisome

D. Ribosomes

Answer: A

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436. Non-membranous organelles are

A. Chloroplasts

B. Nucleolus

C. Centriole

D. Both B and C

Answer: D

D Watch Video Solution

437. Ribosomes are composed of

A. rRNA and tRNA

B. mRNA and tRNA

C. rRNA and proteins

D. mRNA and proteins

Answer: C

438. The term nucleoplasm was given by

A. Browman

B. Fontana

C. Flemming

D. Leeuwenhoek

Answer: A

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439. Which organelle associated with lipid and lipoprotein synthesis is

A. Mitochondria

B. E.R.

C. Chloroplasts

D. Lysosome

Answer: B



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440. Lysosomes function in :

A. Extracellular digestion

B. Intercellular digestion

C. Both A and B

D. Fat breakdown

Answer: C

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441. Middle lamella represents

A. Common wall between adjacent cells

B. Common membrane covering of two adjacent cells

C. Pore between adjacent cells

D. Cementing material between two adjacent cells

Answer: D

442. Mitochondria and chloroplasts are semi-autonomous as

they possess

A. DNA

B. DNA + RNA

C. DNA + RNA + Ribososomes

D. Proteins

Answer: C

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443. Shape of the chromosome is determined by :

(a) Telomere

(b) Centromere

(c) Chromomere

(d) Centrosome

A. Centrosome

B. Centromere

C. Telomere

D. Micromere

Answer: B

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444. Sister chromatids are joined at

A. Chromocentre

B. Metacentrre

C. Centromere

D. Telomere

Answer: C

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445. Kinetochore is the

A. Granule within centromere

B. Surface of centromere

C. Constriction near chromosome end

D. End of chromosome

Answer: B



446. Prokaryotes differ from eukaryotes in absence of

A. DNA

B. Basic proteins

C. Histones

D. Both B and C

Answer: C

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447. Cell membrane are made of

A. Phospholipids and proteins

B. Pectin

C. Cellulose

D. Lipid and hemicellulose

Answer: A



448. Lipid molecule in plasma membrane are arranged in

A. Alternately

B. In series

C. Parallel

D. Scattered.

Answer: C

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449. Single cell proteins are

A. Tightly associated with intrinsic proteins but can be easily separated

B. Loosley associated with intrinsic proteins and can be

easily separated

C. Lossely associated with intrinsic proteins but cannot be

easily separated

D. Tightly associated with intrinsic proteins and cannot be

easily separated.

Answer: B

D Watch Video Solution

450. Cell membrane is not permeable to

A. CO

B. Glutamic acid

C. Glucose

D. Glucose 6-phosphate.

Answer: D

451. Active transport of ions by the cell requires

A. High temperature

B. Low temperatures

C. Alkaline pH

D. ATP

Answer: D

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452. A beet root slice is first washed and then placed in cold water and it does not lose its anthocyanin. This shows that membrane is

- A. Permeable to anythocyanin
- B. Impermeable to anythocyanin
- C. Selectively permeable to anthocyanin
- D. Dead

Answer: B



453. Fluid mosaic model of cell membrane proposes

- A. Upper layer of non-polar nad hydrophobic
- B. Upper layer is polar and hydrophobic
- C. Phospholipids produce a bilayer in the middle
- D. Proteins form the middle layer.

Answer: C

D Watch Video Solution

454. L-shaped chromosomes are called

A. Acrocentric

B. Telocentric

C. Metacentric

D. Submetacentric

Answer: B

455. DNA of chloroplast differs from nuclear DNA in

A. Absence of histone protein

B. Fewer bases

C. Single

D. All the above

Answer: D

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456. In 1831, Robert Brown discovered

A. Cell wall

B. Mitochondria

C. Nucleolus Nucleus

D.

Answer: D

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457. Aleurone layer is rich in:

(a) Proteins

(b) Starch

(c) Lipids

(d) Auxins

A. Starch

B. Fat

C. Protein

D. All the above

Answer: C

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458. In germinating oil seeds β - oxidation of free fatty

acids/fat digestion takes place in

A. Glyoxysome

B. Sphaerosomes

C. Peroxisome

D. Mitochondrion

Answer: A

459. Lysosomal enzymes are active at pH

A. 5

B. 7

C. 8

D. variable

Answer: A

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460. Cell sap occurs in organelle

A. Nucleolus

B. Vacuole

C. Endoplasmic reticulum

D. Golgi bodies

Answer: B



461. The main function of lysosome is

A. Breakdown of cell substances

B. Synthesis of proteins

C. Photosynthesis

D. Breakdown of water

Answer: A
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462. Eukaryotic ribosomes are
A. 30S
B. 50S
C. 80S
D. 70S
Answer: C
Answer: C
Vatch Video Solution

463. The proteins associated with nucleic acids are

A. Histone

B. Globulin

C. Albumin

D. Scleroprotein

Answer: A

Watch Video Solution

464. Protoplast does not include

A. Plasma membrane

B. Cell wall

C. Nucleus

D. Cytoplasm

Answer: B

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465. Organelle connected with lipid synthesis is

A. Ribosome

B. SER

C. Golgi apparatus

D. All the above

Answer: B



466. The major function of contractile vacuole is

A. Excretion

B. Storage

C. Osoregualtion

D. Circulation

Answer: C

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467. Golgi apparatus is derived from

A. Endoplasmic reticulum

B. Lysosome

C. Mitochondria

D. Cell membrane

Answer: A



468. Ribosomes is often called

A. Microsome

B. RNA particle

C. Dictyosome

D. Oxysome.

Answer: B

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469. Ribosome is mainly formed of

A. Enzymes

B. DNA

C. RNA

D. None of the above

Answer: C

470. Which is incorrect in relation to lysosome

A. They contain acid hydrolases

B. They are autophagic

C. They can digest proteins, nucleic acids, lipids and

polysaccharides

D. They are monomorphic

Answer: D

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471. Which of the following layer is present nearest to plasma

membrane in plant cell

A. Secondary wall

B. Primary wall

C. Middle lamella

D. Tonoplast.

Answer: A



472. Plasmodesmata connections help in movement of

substances between cells. They form

A. Cytoplasmic streaming

B. Synchronous mitotic divisions

C. Locomotion of unicellular organisms

D. Moment of substances between cells

Answer: D



473. When a lysosome fuses with a phagosome, it forms

A. Secondary lysosome

B. Primary lysosome

C. Autophagic vacuole

D. Residual body.

Answer: A



474. The term plastid was given by

A. Haeckel

B. Strasburger

C. Virchow Flemming.

D.

Answer: A

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475. Term chromosome was coined by

A. Hofmeister

B. Strasburger

C. Waldeyer

D. Laemli.

Answer: C

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476. which one of the following structures between two adjacent cells is an effective transport pathway?

A. Interdigitations

B. Desmosomes

C. Gap junctions

D. Intercellular bridges.

Answer: B



477. Orange-yellow colours of flowers and fruits are due to

A. Chloroplasts

B. Leucoplasts

C. Aleuroplasts

D. Chromoplasts

Answer: D



478. The chromosomes which lacks a centromere is

A. Acentric

B. Acrocentric

C. Metacentric

D. Telocentric

Answer: A

Watch Video Solution

479. Which is not bounded by a membrane

A. Plastid

B. Mitochondrion

C. Nucleus

D. Centrioles

Answer: D

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480. Cells involved in energy consumption have a large number of a

A. Ribosome

B. Mitochondria

C. Peroxisomes

D. Lysosome

Answer: B

481. Number of membrane(s) seperating intrathylakoid space

from cytoplasm is

A. 4

B. 3

C. 2

D. 1

Answer: D

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482. Phospholipid molecules of cell membrane posses

A. One polar head and one polar tail

B. One non-polar head nad one non-polar tail

C. One polar head and two nonpolar tails

D. One nonpolar head and two polar tails .

Answer: C



483. Read the statements given below with regard to the function performed by Golgi apparatus

I. Transport and chemically modify the material contained within it.

II. Stores and synthesizes fats.

III. Secrets slime in the insectivorous plants

Which of the following is the correct answer?

A. Wrong-a, correct-b, and c

B. Wrong-b,correct-a and c

C. Wrong-b and c, correct -a

D. Wrong-nil, correct-all

Answer: D



484. Out of peroxisomes, lysosomes and mitochondria, single

membrane covering occurs in

A. Both peroxisomes and lysosomes

B. Only peroxisomes

C. All the above

D. None of the above

Answer: A

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485. Which one does not occur in cell vacuoles

A. Hydrolytic enzymes

B. Latex

C. Anthocyanins

D. DNA

Answer: D



486. Mitochondria are sites of

A. Calvin cycle

B. Krebs cycle

C. Hill reaction

D. Glycolysis

Answer: B

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487. Ribosomes take part in protein synthesis in

A. Viruses

B. Prokaryotes

C. Both prokaryotes and eukryotes

D. Eukaryotes only

Answer: C

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488. Cellular organelles involbed in energy transformation are

A. Mitochondria and chloroplasts

B. Chromoplasts and leucoplasts

C. Mitochondria and chromoplasts

D. Chloroplasts and leucoplasts

Answer: A



489. A component of cytoskeleton is

A. Microtubule

B. Bone

C. Chitin

D. Cartilage

Answer: A



490. Ribosomes are classified according to their

A. Size

B. Volume

C. Sedimentation rate

D. Weight

Answer: C

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491. Most abundant water insoluble polysaccharide

A. Hemicellulose

B. Cellulose

C. Pectin

D. Lignin

Answer: B

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492. Average diameter of plastids is

A. 0.2-1.0 cm

B. 0.2-1.0 μm

C. 0.2-1.0 nm

D. 0.2-1.0Ã. . .

Answer: B

Watch Video Solution

493. The water soluble materials pass through the proteins called

A. Extrinsic proteins

B. Channel proteins

C. Spectrin

D. Glycoprotein

Answer: B

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494. Assembly of 60 S and 40 S subunits of ribosome

produces

A. 80 S

B. 70 S

C. 50 S

D. 100 S

Answer: A

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495. Experiments to demonstrate importance of nucleus in

controlling growth and heredity were performed on

A. Acetabularia

B. Neurospora

C. Leucocytes

D. Starfish egg

Answer: A

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496. Gel part below the plasma membrane is

A. Ectoplasm

B. Endoplasm

C. Plasmalemma

D. None of the above

Answer: A



497. Which of the following organelles is common to plant and animal cells?

A. Plastids

B. Centriole

C. Mitochondria

D. Central vacuole

Answer: C

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498. F_1 particles present in mitochondrion are

A. Mitochondria

B. Chloroplasts

C. Ribosomes

D. Rough endoplasmic reticulum

Answer: A

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499. Stack of lamellae found inside a plastid is

A. Thylakoids

B. Stroma

C. Granum

D. Oxysome.

Answer: C

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500. What is not true of sphaerosomes

A. Single membrane covering

B. Connected with fats

C. Arise from endoplasmic reticulum

D. Involved in photorespiration

Answer: D

Watch Video Solution

501. Ion connected with forming crossbridges is

A. Na^+

B. Ca^{2+}

 $\mathsf{C.}\,K^{\,+}$

D. None of the above

Answer: B



502. The eukaryotic flagella and bacterial flagella differ from

each other in that

A. Type of movement and placement

B. location and mode of functioning

C. Microtubular structure and function

D. Microtubular organisation and type of movement.

Answer: D



503. Chlorophyll occurs in chloroplast

A. Inner membrane

B. Thylakoid membrane

C. Outer membrane

D. Stroma

Answer: B

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504. The filaments present in cilia and flagella are composed

of

A. Short , 5-10 μm

B. Numerous

C. With sweeping or pendular movement

D. All the above

Answer: D

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505. A nucleosome is a portion of the chromonema containing

A. Only DNA

B. Histones

C. Histones with DNA wrapped around them

D. DNA and RNA

Answer: C

Watch Video Solution

506. Enzymes connected with oxidative electron transport

system are found in

A. Plastids

B. Mitochondria

C. Golgi bodies

D. Endoplasmic reticulum

Answer: B



507. Which is not properly paired ?

A. Golgi apparatus -Breaking of complex macromolecules

B. Endoplasmic reticulum-protein synthesis

C. Mitochondria-Oxidative phosphorylation

D. Chloroplasts -Photosynthesis

Answer: A

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508. What is the true of fluid mosaic model?

A. Phospholipid monlayer is present over protein layer

B. Phospholipid bilayer is present over protein layer

C. Protein embedded in phospholipid bilayer

D. Phospholipid layer is sandwitched between two protein

layers.

Answer: C



509. Besides proteins, ribosomes contain

A. Lipids

B. RNA

C. DNA

D. DNA and RNA

Answer: B



510. Polytene chromosomes are formed due to

A. Endoreduplication

B. Duplication without separation

C. Replication of DNA without cell division

D. All the above

Answer: D

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511. Match the columns

Column I		Column II		
<i>(a)</i>	Metacentric	(<i>i</i>)	At the tip	
(b)	Submetacentric	(ii)	Almost near the tip	
(<i>c</i>)	Acronematic	(iii)	At the middle	
(<i>d</i>)	Telocentric	(<i>iv</i>).	Slightly away from middle	

A. a-I,-biv,c-ii,d-iii

B. a-ii,b-iv,c-I,d-iii

C. a-iii,b-iv,c-ii,d-i

D. a-iv,b-iii,c-I,d-ii

Answer: C

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512. Stroma is ground substance of

A. Nucleus

B. Chloroplast

C. Mitochondria

D. Endoplasmic reticulum

Answer: B



513. On which surface of cell, Donnan equilbrium occurs?

A. E.R. -nucleus complex

B. E.R.

C. Golgi complex

D. Plasma membrane

Answer: D

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514. Which one is present in both prokaryotic and eukaryotic

cells?

A. Ribosome

B. E.R.

C. Mitrochondria

D. Nucleus

Answer: A



515. Main function of dictyosome is

A. Storage

B. Respiration

C. Secretion

D. Breakdown of fat

Answer: C Watch Video Solution

516. In eukaryotic cell transcription, RNA splicing and RNA capping take place inside the

A. Nucleus

B. E.R.

C. Ribosomes

D. Golgi apparatus

Answer: A

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517. Rackers particles are found in

" " Or

Fernandez Moran particles are seen in

A. Golgi bodies

B. Chromosomes

C. Mitochondria

D. Nucleus

Answer: C



518. Pectin occurs in

A. Blood protein

B. Plant cell walls

C. Milk protein

D. Liver cells

Answer: B



519. The one located inside a vacuole is

A. Tonoplast

B. Matrix

C. Ergastic substances

D. Cell sap

Answer: D

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520. Pyrenosomes occur in

A. Bundle sheath

B. Vascular bundles

C. mesophyll cells

D. Endosperm

Answer: C

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521. Which of the following show selective permeability?

A. Cell membrane

B. Cell wall

C. Cytoplasm

D. Protoplasm

Answer: A



522. Match the columns

Column 1

(<i>a</i>)	Endoplasmic reticulum	<i>(i)</i>
(<i>b</i>)	Free ribosome	(ii)
(C)	Mitechondrion	(iii)
(<i>d</i>)	Contractile	(iv)

Column II

Cellular respiration Osmoregulation and excretion Synthesis of lipids Synthesis of non-secretory proteins

A. a-I,b-ii,c-iv,d-iii

- B. a-iii,b-iv,c-I,d-ii
- C. a-iii,b-iv,c-ii,d-i
- D. a-ii,b-I,c-iii,d-iv

Answer: B



523. Which is correct option amongst the following statements ?

a. Nuclear membrane, chloroplasts, mitochondria,
microtubules and pili are absent in prokaryotic cells
b. Nuclear membrane, chloroplasts, mitochondria,
microtubules and pili are present in eukaryotic cells
c. Ribosomes are 70S in prokaryotic cells, chloroplasts and
mitochondria. They are 80S in animal cells.

A. a and b are wrong, c is correct

B. a is correct, b and c are wrong

C. a and b are correct, c is wrong

D. a and c are correct, b is wrong

Answer: A





524. Plant cells store fat in

A. Peroxisome

B. Lysosome

C. Sphaerosome

D. Microsome

Answer: C



525. Organelle important in spindle formation during nuclear

division is

A. Centriole

B. Golgi body

C. Chloroplast

D. Mitochondrion

Answer: A



526. Phagosomes and pinosomes are collectively called

A. Residual bodies

B. Autophagic bodies

C. Digestive vacuoles

D. Endosomes

Answer: D

Watch Video Solution

527. The organelle associated with aerobic respiration is

A. Nucleus

B. Centriole

C. Chlorophast

D. Mitochondrion

Answer: D

Watch Video Solution

528. Surface of endoplamic reticulum is covered with

A. Glucose

B. DNA

C. Ribosomes

D. RNA

Answer: C

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529. Prokaryotic cell does not possess

A. Chromosome

B. Mitochondrion

C. Ribosomes

D. Plasma membrane

Answer: B

Watch Video Solution

530. Plasma membrane helps in

A. Transportation of water only

B. Osmorgulation

C. Protein synthesis

D. Nucleic acid synthesis

Answer: B

531. Which statement is not correct with reference to mitochondria?

A. They divide in synchromy with cell cycle

B. They contain DNA

C. The contain cristae

D. They provide chemical energy

Answer: A



532. Chlorophyll in chloroplasts is located in

A. Stroma

B. Grana

C. Pyrenoid

D. Both A and B

Answer: B



533. According to widely accepted "fluid mosai model" cell membranes are semi -fluid , where lipids and integral proteins are diffuse randomly. In recent years, this model has been ,modified in several respects . In this regard , which of the following statements is incorrect?

A. Proteins of cell membrane can travel within lipid bilayer

B. Protein of cell membrane can undergo flipflop

movement in lipid bilayed

C. Protein can remain confined within certain domains of

the membrane.

D. Many proteins remain completely embedded within

lipid bilayed

Answer: B



534. The main organelle involved in modification and routing

of newly synthesized proteins to their destinatoins is

A. Chloroplast

B. Lysosome

C. Mitrochondrion

D. Endoplasmic reticulum

Answer: D



535. Many cells function properly and divide mitotically even

though they do not have

A. Plasma membrane

B. Cytoskeleton

C. Mitochondria

D. Plastids

Answer: D

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536. Three of the following statements regarding cell organeles are correct while one is wrong. Which one is wrong ?

A. Lysosomes are double membraned vesicles budded off from Golgi bodies and contain digestive enzymes
B. Endoplamic reticulum consists of a network of membranous tubules and helps in transport , synthesis and secretion. C. Leucoplasts are bound by two membranes, lack pigments but contains their own DNA and protein synthesising machinery.

D. Sphaerosomes are single membrabe bound and are

associated with synthesis and storage of lipids .

Answer: A



537. In which one of the following would you expect to find glyoxysomes

A. Endosperm of Wheat

B. Endosperm of Castor

C. palisade cell in leaf

D. Root hairs

Answer: B

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538. [A] : Mitochondria and chloroplasts are semiautonomous organelles .

[R] : They are formed by division of preexisting organellesas well as contain DNA but lack protein synthesizing machinery .

A. if both are true with reason being correct explanation

B. both true but reason is not correct explanantion

C. assertion is true but reason is wrong

D. and both are wrong

Answer: C



539. Fluidity of cell membranes in cold weather is maintained by

A. Increaseing number fo phospholipids with unsaturated

hydracarbon tails

B. Inceasing the proportion of integral proteins

C. Increaseing concentration of cholesterol in membrane

D. Increasing the number of phospholipids with saturated

hydrocarbon tails

Answer: A

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540. Membrane potential of a cell forms

A. movement of anions into the cell

B. Movement of cations into the cell

C. Action of proton pumb

D. Action of an electrotgenic pumb

Answer: B

541. Which is not function of vacuoles in plant cell?

A. Storage

B. Waste disposal

C. Production of H_2O_2

D. Cell elongation and protection

Answer: C

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542. Within nucleus, DNA is organised along with proteins

into material called

A. Nuclear lamina

B. Chromosome

C. Chromatid

D. Chromatin

Answer: D



543. Quantosomes occur in

A. Stroma

B. Grana/chloroplast

C. Golgi body

D. Mitchondria

Answer: B

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544. Prokaryotic cells do not have

A. Centriole

B. Membrane bound organelles

C. Desmosomes

D. All the above

Answer: D

545. Adjacent cells are interconnected by

A. Vacuole

B. E.R.

C. Desmosomes

D. Mitochondria

Answer: C

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546. Chloroplast of Ulothrix is

A. Star-shaped

B. Cup-shaped

C. Girdle-shaped

D. Diffused type

Answer: C

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547. Which of the following statements regarding cilia is not correct -

A. Organised beating of cilia is controlled by fluxes of

 Ca^{2+} across the membrane

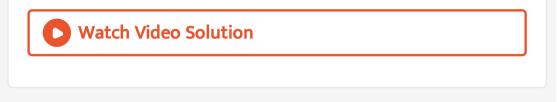
B. Cilia are hair-like cellular appandages

C. Cilia contain an outer ring of nine double mircotubules

surrounding two single microtubules

D. Microtubules of cilia are composed of tubulin

Answer: A



548. Which of the following statements regarding mitochondrial membrane is not correct ?

A. Outer membrane resembles a sieve

B. Outer membrane is permeable to all kinds of moleucles

C. Enzymes of electron transport chain are embedded in

outer membrane

D. Inner membrane is highly convolucted forming a series

of infolding

Answer: C

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549. Read the two statements , a and b Statement a. the number of mitchondria are common to the cell Statement b. Mitochondria are common to both plant and animal cells.

Choose the correct option from those given

A. Both the statement a and b are correct

B. Both the statement a and b are wrong

C. Statement a is correct, b is wrong

D. Statement b is correct , a is wrong

Answer: D

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550. Cells obtained from an organism were homogenised and centrifuged. A test indicated that the cells contained glycogen. It you were asked to find out as quickly as possible whether the cells were from a plant or an animal, you would

- A. Examine the centrifuge for presence of extracts of centrioles
- B. Answer immediately that the cells were from an animal source
- C. Examine the centrifuge for the presence of extracts of

chloroplasts

D. Answer immediately that the cells were from a plant

source

Answer: B



551. Assertion : Eukaryotic cells have the ability to adopt a variety of shapes and carry out directed movements. Reason : There are three principal types of protein filaments-microdilaments, microtubules and intermediate filaments, which constitute the cyloskeleton.

A. if both are true with reason being correct explanation

B. both true but reason is not correct explanantion

C. assertion is true but reason is wrong

D. and both are wrong

Answer: A

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552. What is common between chloroplasts, chromoplasts and leucoplasts ?

A. Presence of pigments

B. Presence of thylakoids and grana

C. Storage of starch, proteins and lipids

D. Ability to multiply by a fission -like process

Answer: D

553. Match the following

a	Bacteria	1.	
b	Sphaerosomes	2.	
С	Chloroplasts	3	
d	Karyotype	4	

- Synthesis and storage of lipids
- Idiogram
- Glycocalyx
 - Thylakoids

A. a-3,b-1,c-4,d-2

B. a-3,b-1,c-2,d-4

C. a-4,b-3,c-2,d-4

D. a-1,b-3,c-2,d-1

Answer: A



554. Match the columns ?

I

a Sap vacuole

- b Contractile vacuole 2.
- c Food vacuole
- d Air vacuole 4.
- e Sphaerosomes

Π

1

3

Contain digestive enzymes

Store metabolic gases

Osmoregulation

Store lipids

5. Store and concentrate

mineral salts and nutrients

A. a-5,b-3,c-1,d-2,e-4

B. a-2,b-3,c-4,d-5,e-4

C. a-5,b-2,c-3,d-1,e-4

D. a-5,b-3,c-2,d-4,e-1

Answer: A

555. Which of the following subunit of ribosome is ribosome is composed of 23S rRNA and a 5S rRNA +32 different proteins

" " Or

The largest subunit of prokaryotic ribosomes is

A. 30 S

B. 40 S

C. 50 S

D. 60 S

Answer: C

556. Arrangement of microtubules in basal bodies is

A. 9+2 B. 9+4

D. 9+9

C. 9+3

Answer: A



557. Which cell organelle connects nuclear envelope with cell

membrane?

A. Lysosome

B. Golgi body

C. Endoplasmic reticulum

D. Mitchondria

Answer: C

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558. m-RNA is synthesised on DNA template in which direction : -

A. E.R.

B. Nucleus

C. Nucleolus

D. Cytoplasm

Answer: C

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559. A living continuum of cells connected by plasmodesmata

is

A. Symplast

B. Apoplast

C. Cross-connection

D. None of the above

Answer: A

560. Which of the following is incorrect

A. Plasmalemma is the outer cell membrane

B. Membrane	surroundir	ig an	organ	elle	is	called		
subcellular								
membrane								
C. Membranes	forming	endopl	asmic	retic	ulum	are		
biomembranes								

D. Prokaryotic cells have subcellular membranes

Answer: D



561. Which of the following is ture for nucleolus ?

A. Vesiscles of E.R.

B. Sat chromosome

C. RNA

D. Nuclear membrane

Answer: B



562. The Golgi apparatus

A. Zone of separation

B. Zone of transition

C. Zone of inclusion

D. Zone of exclusion

Answer: D

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563. Chromosome having terminal centromere capped by telomere is

A. Metacentric

B. Submetacentric

C. Acrocentric

D. Telocentric

Answer: C

564. Cell organelle having flattened sac-like stacked cisternae

taking part in packing and secretion is

A. Lysosome

B. Golgi apparatus

C. Ribosomes

D. Mitochondrion

Answer: B

D Watch Video Solution

565. Which is mismatched ?

A. Amyloplasts-Store protein granules

B. Elaioplasts -Store oil or fat

C. Chloroplasts-Contain Chlorophyll pigments

D. Chromoplasts -Contain pigments other than chlorophyll

Answer: A

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566. Nucleosome contains

A. H_2A, H_2B, H_3, H_4

B. H_3, H_4

 $C. H_2A, H_2B, H_3$

 $\mathsf{D}.\,H_1,\,H_2A,\,H_2B,\,H_3$

Answer: A

D Watch Video Solution

567. The term nucleoplasm was given by

A. Brown

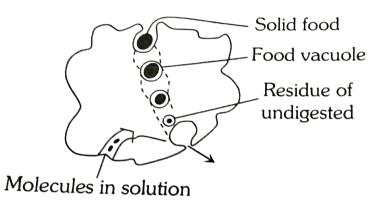
B. Flemming

C. Purkinje

D. Strasburger

Answer: D

568. In the diagram, which of the following processes are shown in Amoeba



A. Phagocytosis

B. Pinocytosis

C. Exocytosis

D. All the above

Answer: D



569. Identify the correct pair of statements

I. Movement of cytoplasm around vacuoles occurs in clockwise and anticlockwise manners in Hydrilla

II. Heteropicnosis refers to differential stainability of chromatin

III, Dissolution of synaptonemal complex occurs in diplotene IV. Either clockwise or anticlockwise movement of cytoplasm around vacuoles occurs in Rheo discolor

A. Circulation

B. Rotation

C. Regulation

D. Somersault

Answer: B



570. In multicullular organisms, 70 S ribosomes occur inside

A. Nucleus

B. Mitochondria

C. Lysosome

D. E.R.

Answer: B



571. Pits found in cell wall are due to lack of

A. Middle lamella

B. Cell plate

C. Primary wall material

D. Secondary wall material

Answer: D

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572. Highest number of enzymes occur in

A. Chloroplast

B. Peroxisome

C. Mitochondria

D. Lysosome

Answer: C

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573. Enzyme catalysing ATP inside flagella is

A. Axonal dynein

B. Cytoplasmic dynein

C. Myosin

D. Kinesin

Answer: A

574. Number of protofilaments in a microtubules is

A. 15 B. 13 C. 10

D. 5

Answer: B



575. Plastids that stores oils and fats are

A. Amyloplasts

B. Aleuroplasts

C. Elaioplasts

D. All the above

Answer: C

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576. Which of the following is present in lysosome?

A. Basic phosphatase

B. Acid phosphatase

C. Oxido-reductase

D. Lyase

Answer: B



577. Centrosome is not present in

A. cells of higher plants

B. cells of lower plants

C. cells of higher animals

D. cells of lower animals

Answer: A

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578. The type of chromosome whose centromere is in the middle.

A. Metacentric

B. Telocentric

C. Acrocentric

D. Dicentric

Answer: A

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579. Cuticle occurs over

A. Virus

B. Human cell

C. plant cell

D. Bacterium

Answer: C

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580. Which organelle occurs both in plants and animals ?

A. Cell wall

B. Mitochondria

C. Centriole

D. Chloroplast

Answer: B

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581. Which of the following increases membrane permeability

A. Catalase

B. Gelatinase

C. Amylase

D. Permease

Answer: D

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582. Which one of the following is not a part of cell membrane ?

A. Glycolipids

B. Phospholipids

C. Cholesterol

D. Proline

Answer: D



583. Which is wrong

A. Both chloroplast and mitochondrion have an internal

compartment or thylakoid space bounded by thylakoid

membrane

B. Both contain DNA

C. Chloroplast is generally larger

D. Both are covered by double membrane

Answer: A

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584. Lysosomes are

A. E.R.

B. Golgi bodies

C. Mitochondria

D. Both A and B

Answer: B



585. ATP is required for

A. Active process

B. Passive process

C. All type of processes

D. None of the above

Answer: A

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586. Prokaryotic cells differ from eukaryotic cells in the :

A. Chromatin

B. True nucleus

C. Protoplasm

D. Chromatin reticulum

Answer: B

Watch Video Solution

587. RER is rough because of the presence of

A. Ribosomes

B. Lysosome

C. Mitochondria

D. Volutin granules

Answer: A



588. The best material for demonstrating streaming movements of protoplasm within living cells is

A. Sensitive plant

B. Pith cells

C. Onion peeling

D. Staminal hair of Tradescantia

Answer: D



589. Mesosomes of prokaryotes are functionally similar to

A. Peroxisome

B. Lysosomes

C. Mitochondria

D. Ribosomes

Answer: C

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590. Flagella occur in

A. Eukaryotic cell

B. Lysosomes

C. Mitochondria

D. Ribosomes

Answer: A

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591. Match the columns :

Column I

- Endoplasmic (i)(a)reticulum

Column II

- Stack of
- cisternae
- Store oil
- Synthesis and storage of lipids
- Photorespiration
- Detoxification of drugs

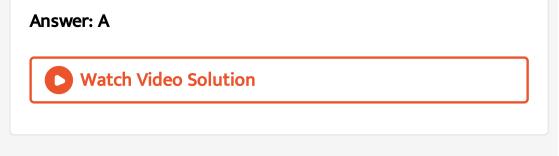
A. a-v,b-iii,c-l,d-iv,e-ii

B. a-v,b-iii,c-ii,d-iv,e-i

C. a-ii,b-ii,c-I,d-iv,e-v

D. a-iii,b-iv,c-I,d-v,e-ii

Sphaerosome (ii)(b)Dictyosomes (iii) (c)Peroxisomes (iv)(d)Elaioplasts (v)(e)



592. Small paticles projecting from inner surfaces of cristae and inner mitochondrial membrane are

A. Microsomes

B. Oxysomes

C. Myeloid bodies

D. Informosomes

Answer: B

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593. Membrane most abundant in a cell is

A. Nuclear membrane

B. Golgi membrane

C. Plasma membrane

D. E.R. membrane

Answer: D

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594. Which one occurs in both prokaryotic and plant cells ?

A. Nucleus

B. Chloroplast

C. Cell wall

D. Mitochondria

Answer: C

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595. A plant cell has

A. A large vacuole and rigid cell wall

B. Centriole for cell division

C. Centrosome inactive in nondividing cells

D. Absence of cell membrane

Answer: A



596. Sphaerosomes have

A. cellulose reserve

B. Protein reserve

C. Lipid reserve

D. Both protein and lipid reserve

Answer: C

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597. Some of the enzymes, which are associated in converting

fats into carbohydrates, are present in

" " Or

Site of gluconeogenesis is

A. Golgi bodies

B. Glyoxysomes

C. Mitochondria

D. Lysosomes

Answer: B

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598. In plant cell, the vacuole

A. Contains air and lacks membrane

B. Contains water and excretory substances but lacks

membrane

C. Contains storage protein and lipids and is membrane

bound

D. Is membrane bound, contains water and excretory

substance

Answer: D

Watch Video Solution

599. rRNA occurs in

A. Lysosomes

B. Cytosol

C. Ribosomes

D. Golgi apparatus

Answer: C

Watch Video Solution

600. Asserion : A cell membrane shows fluid behaviour

Reason : A membrane is a mosaic or composite of diverse

lipids and proteins

A. if both are true with reason being correct explanation

B. both true but reason is not correct explanantion

C. assertion is true but reason is wrong

D. and both are wrong

Answer: A

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601. Pick up the correct answers:

- 1. Mitochondrion contains DNA
- 2.70 S ribosomes occur in prokaryotes
- 3. Ribosomes are made of phospholipids and

oligosaccharides.

4. Ribosomes are not found in protista and monera.

A. 1,2,3 correct

B. 1,2 correct

C. 2,4 correct

D. 1,3 correct

Answer: B

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602. Pick up the correct answers about idioblast

- 1. Plant cell different from others
- 2. Animal cell different from others.
- 3. Plant cell having cell inclusions
- 4. Animal cell having cell inclusions.
 - A. 1,2,3 correct
 - B. 1,2 correct
 - C. 2,4 correct
 - D. 1,3 correct

Answer: D

Watch Video Solution

603. Which of the following subunit of ribosome is ribosome is composed of 23S rRNA and a 5S rRNA +32 different proteins

" " Or

The largest subunit of prokaryotic ribosomes is

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

D. 60 S

Answer: C

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604. Which of the following is a part of endomembrane system of eukaryotic cell

A. Mitochondria

B. Peroxisome

C. Chloroplasts

D. Golgi bodies

Answer: D

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605. Which is not a plastid ?

A. Chloroplast

B. Mitoplast

C. Chromoplast

D. Leucoplast

Answer: B

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606. Which is correct in view of fluid mosaic model?

A. Proteins can flip-flop lipids cannot

B. Neither proteins nor lipids can flip-flop

C. Both lipids and proteins can flip-flop

D. Lipids can rarely flip-flop , proteins cannot.

Answer: D

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607. Fluidity of bio-membranes can be shown by

A. Tissue culture

B. Fluorescence microscope

C. Phase-contrast microscope

D. Electron microscope

Answer: B



608. Shape of choloroplast in higher plant is

A. Discoid

B. Girdle-shaped

C. Reticulate

D. Cup-shaped

Answer: A

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609. In endocytosis the cell

A. Divides cytoplasm in mitosis

B. Digests itself

C. Engulfs and internalises materials with its membrane

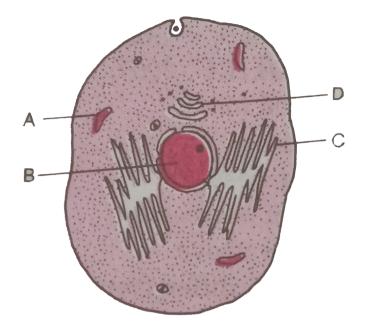
D. Enable extracellular digestion of larger molecules.

Answer: C



610. RER synthesises a plasma -membrane protein. Membrane protein becomes slightly different while passing through another cell organelle. Identify the organelle in the given

diagram



A. D

- B. A
- С. В
- D. C

Answer: A



611. Puffs of polytene chromosome are specially concentrated

with

A. DNA polymerase

B. Ligase

C. Ecdysone

D. RNA polymerase

Answer: D



612. In which part of interphase chromosome does transcription occur

A. Telomere

B. Heterochromatin

C. Euchromatin

D. Centromere

Answer: C

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613. The most abundant lipid in cell membrane is

A. Sphingolipid

B. Glycolipid

C. Phospholipid

D. Cholesterol

Answer: C



614. The function of Na^+ and k^+ pump is to

A. Na^+ out and Cl^- in

B. Cl^- out and Na^+ in

C. Na^+ in and K^+ out

D. Na^+ out and K^+ in

Answer: D

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615. Axoneme with 9+2 microtubular arrangement occurs in

A. Cilia

B. Flagella

C. Both A and B

D. Centriole

Answer: C

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616. Respiratory enzymes occurs in

A. Chloroplasts

B. Mitochondria

C. Lysosome

D. Peroxisomes

Answer: B

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617. Chromatin is chemically made of

A. Nucleic acid, histone and non-histone proteins

B. Nucleic acid and histone proteins

C. Nucleic acid and non-histone proteins

D. Nucleic acid

Answer: A



618. The cell organelle associated with intercellular digestion

of macromolecules is

" " Or

Which is concerned with autolsis

" " Or

One of the cell organelle is said to function as "trigger of cell

division"

A. Lysosome

B. Peroxisome

C. Polysome

D. Glyoxisome

Answer: A



619. Analyze the following pairs and identify the correct option given.

- I. Choromoplasts Contains pigments other than chlorophyll
- II. Leucoplasts Devoid of any pigments
- III. Amyloplasts Store proteins
- IV. Aleuroplasts Store oils and fats
- V. Elaioplasts Store carbohydraes
 - A. b and c correct
 - B. c and d correct
 - C. d and e correct
 - D. a and b correct

Answer: D

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620. Plasmodesmata are

A. Locomotory structures

B. Lignified cement between cells

C. Connection between adjacent cell

D. Membranes connecting nucleus and plasmalemma

Answer: C

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621. Middle lamella is mainly composed of

A. Hemicullulose

B. Calcium pectate

C. Muramic acid

D. Phosphoglycerides

Answer: B

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622. Cytoskeleton is made up of

A. Callose deposits

B. Cellulose microfibrils

C. Calcium carbonate granules

D. proteinaceous filaments

Answer: D

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623. Which of the following plant cell is not surrounded by

cell wall?

A. Root hair cell

B. Stem hair cell

C. Gamete cell

D. Bacterial cell

Answer: C



624. Which one does not contain DNA?

A. Peroxisome

B. Nucleus

C. Chloroplast

D. Mitochondria

Answer: A



625. Karyotype is

A. Division of nucleus

B. Chromosome complement specific for each species

C. All organisms possessing some type of chromosomes

D. None of the above

Answer: B

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626. Cystolith contains

A. $CaCO_3$

B. $CaCl_2$

C. $MgCl_2$

D. CaO

Answer: A

D Watch Video Solution

627. Which is correct

A. Oil storage -Rhodoplast

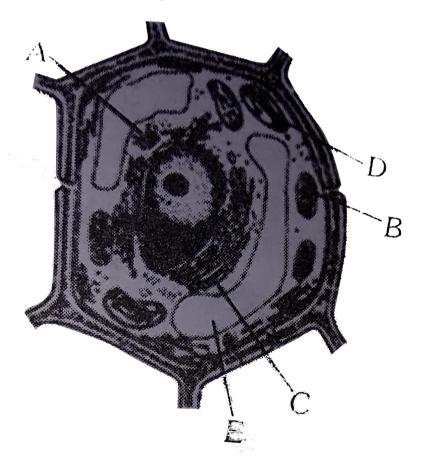
B. Protein storage-Amyloplast

C. Starch storage-Aleuroplasts

D. Fat storage-Elaioplast

Answer: D

628. The diagram of the ultranstructure of a plant cell is given below. Identify the functions of the organelles labelled. A,B,C,D,E in the diagram



A. a-intracellular transport, b-site of oxidative

phosphorylation ,c-principal direction macromolecular

traffic ,d- site of photophosphorylation , e- storage of

cell sap

B. a-principal direction macromolecular traffic, b-site of oxidative phosphorylation, c-intracellular transport, dsite of photophosphorylation, e-storage of cell sap C. a-site of phosphorylation, b-storage of cell sap,cintracellular transport, d- site of oxidation photophosphorylation , e-principal direction macromolecular traffic storage of cell sap,b-site of oxidative D. aphosphorylation ,c-principal direction of macromoleuclar traffic ,d-site of photophosphorylation

,e-intracellular transport

Answer: B

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629. Ingestion of solid or liquid substances into cell is referred to as

A. Endocytosis

B. Diffusion

C. Osmosis

D. Exocytosis

Answer: A

630. Number of microtubules in a flagellum including those

sharing three protofilaments with each other is

A. 10

B. 11

C. 20

D. 22

Answer: C

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631. the long and short arms of chromosome are designated

respectively as :

A. p and q

B. q and p

 $\mathsf{C}.\,\alpha \ \text{and} \ \beta$

D. m and p

Answer: B



632. Hydrogen peroxide is ……..

A. Cyanobacterial

B. Fusobacterial

C. Proteobacterial

D. Actinobacterial

Answer: D

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633. Nuclear membrane is absent in

A. Plantae

B. Protista

C. Monera/Nostoc

D. Fungi

Answer: C

634. Na^+/K^+ pump in a cell is an example of

A. Osmosis

B. Diffusion

C. Passive transport

D. Active transport

Answer: D

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635. The size of mitochondria in plant cell is

A. 3.0-4.0 $\mu m \log$

B. 2-4 $\mu m \log$

C. $1-4\mu m$ long

D. $1.0-1.0 \mu m$

Answer: C

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636. Active transport is characterized by

A. Requires special membrane proteins

B. Highly selective

C. Requires ATP energy

D. All the above

Answer: D



637. A typical nucleosome contains :

A. 100 bp of DNA helix

B. 200 bp of DNA helix

C. 300 bp of DNA helix

D. 400 bp of DNA helix

Answer: B

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638. House-keeping proteins occur in

A. Golgi complex

B. Cytoskeleton

C. Endoplasmic reticulum

D. All the above

Answer: D



639. Disappearance of the tadpole tail during metamorphosis

is brough about by

A. Lysosomes

B. Golgi apparatus

C. Peroxisomes

D. Endoplasmic reticulum

Answer: A

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640.70S ribosomes are seen in

A. Mitochondria

B. Bacterial cell

C. ER

D. Both A and B

Answer: D

641. What is mitoplast

A. Membraneless mitochondria

B. Mitochondria without inner membrane

C. Another name of mitochondria

D. Mitochondria without outer membrane

Answer: D

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642. Consider the following statements

(A) Plant cells have centrioles which are absent in almost all

animal cells

(B) Ribosomes are the site of protein synthesis

(C) The middle lamella is a layer made of calcium carbonate which holds the different neighbouring cells together(D) In animal cell, steroidal hormones are synthesised by smooth endoplasmic reticulum

Of the above statements

A. a and b only are correct

B. c and d only are correct

C. a and d only are correct

D. b and c are correct

Answer: C



643. The name chromatin was coined by

A. Robert Brown

B. Flemming

C. Camillo Golgi

D. Rudolf Virchow

Answer: B



644. Which of these is wrongly matched

A. Chloroplast-Chlorophyll

B. Elaioplasts -starch

C. Chromoplasts- carotenoides

D. Amyloplasts - carbohydrates

Answer: B

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645. Present in nucleolus is

A. Golgi complex

B. Chromosomes

C. Mitchondria

D. Lysosome

Answer: B

646. In animal cells, lipid- like steroidal hormones are synthesized in

A. Rough endoplasmic reticulum

B. Golgi apparatus

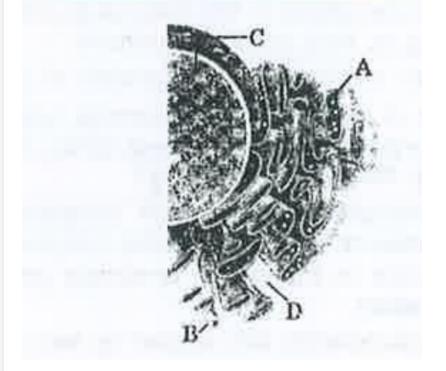
C. Smooth endoplasmic reticulum

D. Lysosomes

Answer: C

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647. Identify the components labelled A, B, C and D in the diagram below from the list (i) to (viii) given along with



Components :

- (i) Cristae of mitochondria
- (ii) Inner membrane of mitochondria
- (iii) Cytoplasm
- (iv) Smooth endoplasmic reticulum
- (v) Rough endoplasmic reticulum
- (vi) Mitochondrial matrix
- (vii) Cell vacuole

(viii) Nucleus

The correct components are

Answer: A



648. An elaborate network of filamentous proteinaceous structures present in the cytoplasm which helps in the maintenance of cell shape is called

A. Plasmalemma

B. Cytoskeleton

C. Endoplasmic reticulum

D. Thylakoids.

Answer: B



649. The plasma membrane consists mainly of

A. Protein embedded in a phospholipid bilayer

B. Protein embedded in a polymer of glucose molecules

C. Proteins embedded in a carbohydrates bilayer

D. Phospholipids embeded in a proteins bilayer.

Answer: A

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650. Carrier ions like Na^+ facilitate the absorption of substance like

A. Glucose and fatty acid

B. Fatty acids and glycerol

C. Fructose and some amino acid

D. amino acid and glucose

Answer: D

651. Which one of the following structures between two adjacent cells in an effective transport pathway ?

A. Plastoqinones

B. Endoplasmic reticulum

C. Plasmalemma

D. Plasmodesmata

Answer: D

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652. The main arena of various types of activities of a cell is

A. Mitochondrion

B. Cytoplasm

C. Nucleus

D. Plasma membrane

Answer: B



653. The cell membranes of adhacent cells are fused at

A. Macula adherens

B. Zonula occuldens

C. Zonula adherens

D. Nexus

Answer: B

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654. Circular DNA is present in

A. Centriole and mitochondria

B. Ribosomes and plastids

C. Chlorplasts and mitochondria

D. Chloroplasts and Golgi apparatus.

Answer: C

655. Structural element of chromatin is

A. Histone

B. Acid protein and DNA

C. Nucleosome

D. Nuclear matrix

Answer: C

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656. TCA enzymes mostly occur in

A. Ribosomes

B. Mitochondrial matrix

C. Cytoplasm

D. Peroxisomes

Answer: B

Watch Video Solution

657. Which is not correct about plasmid

A. Host chromosome can be integrated with plasmid

B. Transfer of plasmid can occur from one cell to another

with the killing of former

C. It is extrachromosomal DNA in bacteria

D. It is not an integral part but inert genetic material

Answer: D

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658. Which of the following is not a cell inclusion ?

A. Crytal

B. Vacuole

C. Starch

D. Fat droplet

Answer: B

659. The term lipochondria was suggested for

A. Mitochondria

B. Golgi complex

C. ER

D. All of the above

Answer: C

Watch Video Solution

660. What is the proportion of lipids in chloroplast

A. 20-30%

B. 5-10%

C. 4-5%

D. 1-2%

Answer: A

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661. Animal cells do not possess

A. Plasmodesmata

B. Centriole

C. 80 S ribosomes

D. All the above

Answer: A



662. Chromosomes / chromatin consists of

A. DNA

B. Protein

C. RNA

D. DNA, RNA and protein

Answer: D

Watch Video Solution

663. Energy releasing reaction in a cell occurs in

A. Cell wall

B. Ribosomes

C. Mitochondria

D. Plastids

Answer: C



664. Glycocalyx is associated with

A. Plasmalemma

B. Nucleous

C. Nucleus

D. Nucleosome

Answer: A

Watch Video Solution

665. Histone octamer possesses

A. 8 histones of 4 types

B. 8 types of histones

C. 6 types of histone

D. 5 types of histone

Answer: A

666. Detoxification of lipid soluble drugs and other harmful compound in ER is carried out by cytochrome

A. a_1-a_3 B. cC. b-f

D. P_{450}

Answer: D

Watch Video Solution

667. Which is not a true organelle?

A. Lysosome

B. Mitochondria

C. Ribosomes

D. Chloroplast

Answer: C



668. It is not characteristic of active transport

A. Highly selective

B. Insensitive to inhibitors

C. Uphill transport

D. Transporter saturates

Answer: B

D Watch Video Solution

669. The Golgi apparatus

A. Modifies and packages proteins

B. Occurs in animals

C. Found in prokaryotes

D. Site for rapid ATP systhesis.

Answer: A

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670. Consider the following statements and select the correct option

(A) The endomembrane system includes plasma membrane,

ER, Golgi complex, lysosomes and vacuoles

(B) ER helps in the transparent of substances, synthesis of proteins, lipoproteins and glycogen

(C) Ribosomes are involved in protein synthesis

(D) Mitochondria help in oxidative phosphorylation and generation of ATP

A. b,c and d

B. a alone is correct

C. b alone is correct

D. c alone is correct .

Answer: A

Watch Video Solution

671. Important site for formation of glycoproteins and glycolipids is

A. Lysosome

B. Plastids

C. Golgi apparatus

D. Vacuole

Answer: C

Watch Video Solution

672. Structures called beads on string are

A. Nucleosomes

B. Base pairs

C. Genes

D. Nucleotides.

Answer: A

Watch Video Solution

673. Which organelle is not a part of the endomembrane system ?

A. Golgi body

B. Vacuole

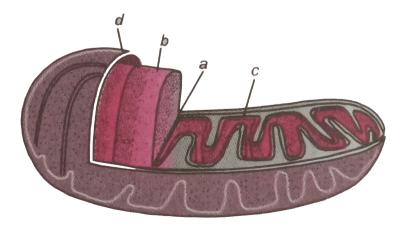
C. Proxisomes

D. Lysosomes

Answer: C

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674. Select the correct labelling out of a, b c and d of mitochondrian



A. d (outer membrane) gives rise to inner membrane by

splitting

B. b(inner membrane) formes infoldings called cristae

C. c(cristae) possesses single circular DNA molecule and

ribosomes

D. a(matrix) major site for respiratory chain enzymes.

Answer: B

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675. Streaming of cytoplasm within a living cell is

A. Homeostasis

B. Cyclosis

C. Diffusion

D. Osmoregulation

Answer: B

Watch Video Solution

676. An oxidative organelle is

A. Ribosomes

B. Gogi body

C. Peroxisomes

D. ER

Answer: C





677. Amino acid present in histones are

A. Arginine an lysine

B. Lysine and histidine

C. Valine and histidine

D. Arginine and histinden

Answer: A

Watch Video Solution

678. In active tranport ATP energy is used by carrier proteins

to transport materials

A. Against concentration gradient across cell membrane

B. Against concentration gradient across cell wall

C. Along concentration gradient across cell wall

D. Along concentration gradient across cell membrane.

Answer: A

Watch Video Solution

679. Which of the following structures controls the transport

of the material into and out of living cells or controls permeability

" " Or

Which one of the following does not differ in E. coli and Chlamydomonas A. Ribosomes

B. Cell wall

C. Cell membrane

D. Chromosomal organisation

Answer: C

Watch Video Solution

680. What is true about ribosomes ?

A. Prokaryotic ribosomes are 80 S

B. Composed of RNA and proteins

C. Found only in eukaryotic cells

D. They are self splicing introns of some RNAs.

Answer: B

Watch Video Solution

681. Which one of the following animal possesses gaint chromosome?

A. Drosophila

B. Xenopsylla

C. Branchiomyces

D. Mouse

Answer: A

Watch Video Solution

682. N-acetyl muramic acid is found as

A. Cell wall of plants

B. Cell wall of bacteria

C. Cell wall of fungi

D. Viral coat

Answer: B

Watch Video Solution

683. Identify the bacterium that appears violet after Gram staining

A. Salmonella enterica

B. Escherichia coli

C. Mycobacterium tuberculosis

D. Rhizobium meliloti

Answer: C



684. Microtubules are made of

A. Actin

B. Keratiin

C. Tubulin

D. Dyenin

Answer: C

Watch Video Solution

685. Heterophagosome is

A. Lysosome in which only indigestible food is left

B. Formed by fusion of primary lysososme with

degenerating intracellular organelles

C. Newly pinched out vesicle from Golgi apparatus which

fuses with endosome to become functional

D. Formed by fusion of primary lysosome with food containing phagosome

Answer: D



686. Bacteria having a tuft of flagella at one end are called

A. Amphitrichous

B. Peritrichous

C. Atrichous

D. Lophotrichous

Answer: D



687. The lysosome contains hydrolytic enzymes. For the functioning of enzymes, the pH inside the lysosome is

A. Acidic pH

B. Alkaline pH

C. Neutral pH

D. Both B and C

Answer: A

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688. Which of the following is not true for active transport

A. It is chemical process

B. Energy is obtained from ATP

C. Occurs through carrier molecules

D. Not modified by enzymes

Answer: A Watch Video Solution

689. Which one of the following structures is an organelle within an organelle ?

A. ER

B. Mesosome

C. Peroxisome

D. Ribosomes

Answer: D

Watch Video Solution

690. Which one of the following cellular parts is correctly described ?

A. Thylakoids -Flattened membranous sacs forming grana7

B. Centrioles-Sites for active RNA synthesis

C. Ribosomes -There is chloroplasts are larger (80 S) while

those in cytoplasm are smaller (70 S)

D. Lysosomes -Opimally active at 8.5 p.H

Answer: A



691. Detailed structure of the membrane was studied after

the advent of electron microscope during

A. 1930 s

B. 1950 s

C. 1970 s

D. 1990 s

Answer: B

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692. Axonemal arrangement of microtubules is

A. 6 peripheral pairs of doublets and one central pair of

singlets

B. 6 peripheral pairs of doublets and one central singlets

C. 9 peripheral pairs of doublets and one central pairs of

singlets

D. 9 peripheral pairs of doublets and one central singlet.

Answer: C



693. L-shaped chromosomes are called

A. Metacentric

B. Submetacentric

C. Acrocentric

D. Telocentric

Answer: B

Watch Video Solution

694. Plant cell differs from animals cell by

A. Presence of vacuoles

B. Presence of cell wall and chloroplast

C. Absence of cell wall

D. Absence of chloroplast.

Answer: B

Watch Video Solution

695. Chromosomes are concerned with

A. Respiration

B. Growth

C. Transmission of hereditary characters

D. Assimilation

Answer: C

Watch Video Solution

696. Bright colour of petals is due to the presence of

A. Xanthophyll

B. Carotenes

C. Nucleus

D. DNA

Answer: B

Watch Video Solution

697. Which of the following structures is not found in prokaryotic cells?

A. Plasma membrane

B. Nuclear membrane

C. Cell wall

D. Ribosomes

Answer: A



698. Which of the following structures is not found in prokaryotic cells?

A. Plama membrane

B. Nuclear membrane

C. Cell wall

D. Ribosomes

Answer: B



699. Prokaryotic Ribosomes are

A. 50 S

B. 60 S

C. 70 S

D. 80 S

Answer: C

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700. In which type of chromosome one arm is very long and

one arm is very short?

A. Acrocentric

B. Metacentric

C. Submetacentric

D. Telocentric

Answer: A

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701. The only cell organelle seen in prokaryotic cell

A. Dictyosomes

B. endoplasmic reticulum

C. Mesosome

D. ER

Answer: C



702. Choose the wrong statement regarding bacterial cell
A. Glycocalyx is the outer most envlope in bacteria
B. The glycocalyx could be a loose sheath called capsule
C. The glycocalyx may be thick and tough called slime layer
D. A special structure formed by the plasma membrane is called mesosome

E. Small bristle like fibers sprouting out of the cell are called fimbriae

A. a and c are wrong

B. a and b are wrong

C. b and c are wrong

D. a and d are wrong

Answer: C



703. Consider the following statements

A. In prokaryotic cells a special membranous structure formed by the extension of the plasma membrane into the cell is known as polysome

B. The smooth endoplasmic reticulum is the major site for synthesis of glycoproteins

C. RuBisCo is the most abundant protein in the whole of biospshere

D. Mitochondria, chloroplasts and peroxisomes are not considered as part of endomembrane system

Of the above statements

A. c and d alone are correct

B. a and b alone are correct

C. a and c alone are correct

D. a and d are wrong

Answer: A



704. Given below some properties of transport mechanism.

Which of these are true for the facilitated transport

- (i) Require ATP energy
- (ii) Highly selective
- (iii) Uphill transport
- (iv) Requires special membrane proteins
- (v) Transport saturates

A. 1,2,3, are relevant, 4 and 5 are irrelveant

B. 2,35 are relevant, 1 and 4 are irrelevant

C. 2,3,5 are relevant, 1 and 5 are irrelaevant

D. 3,4,5 are relevant , 2 and 3 are irrelevant

Answer: C



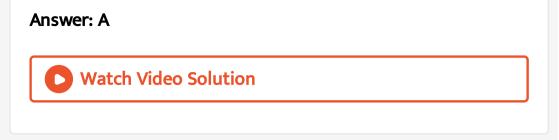
705. Plasmids were discovered by

A. Hayes and lederberg

B. Lederberg and Tatum

C. Boliver and Robrigiuez

D. Messing and Vieria



706. Nuclear membrane is formed around the groups of daughter chromosomes during telophase by

A. Mitochondria

B. Endoplasmic reticulum

C. Lysosome

D. nucleus

Answer: B

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707. Teichoic acid is present in cell wall of

A. Gram-ve bacteria

B. Gram+ve bacteria

C. Mycoplasma

D. Cyanobacteria

Answer: B

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708. From the following , select the statement that is true

A. All cells have a cell wall

B. Animal cells contain microtubules but plant cells donot

have microtubules

C. Golgi apparatus is found only in animal cells

D. Chloroplasts are found in plant cells but not in

prokaryotic or animal cells.

Answer: D



709. The main arena of various types of activities of a cell is

A. Cytoplasm

B. RER

C. Nucleolus

D. Mitochondria

Answer: A

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710. The polytene chromosomes were discovered for the first

time in

A. Chironomus

B. Drosophila

C. Musca

D. Culex.

Answer: A

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711. Bacteria having a tuft of flagella at both ends are called

A. Atrichous

B. Peritrichous

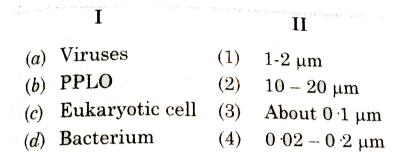
C. Lophotrichous

D. Amphitrichous.

Answer: D

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712. Match the columns and choose the correct option



A. a-1,b-2,c-3,d-4

B. a-4,b-3,c-2,d-1

C. a-1,b-3,c-2,d-4

D. a-3,b-2,c-3,d-1

Answer: B



713. Select the wrong statement of a bacterial cell

- A. Mesosome is formed by outfoldings of plasma membrane
- B. Pili are elongated tubular structures made up of a protein
- C. Flagellum is composed of filament, hook and basal body
- D. Fimbriae are small bristle like fibres spruting out of cell.

Answer: D



714. Consider the following statement

(a) Endomembrane system includes mitochondria , chloroplast and peroxisomes

(b) Smooth endoplasmic reticulum is major site for synthesis of lipid

(c) Rough endoplamic reticulum is actually involved in protein synthesis

(d) Mitchondrial matrix possesses single cirular DNA , a few

RNAs and 80 S ribosomes

Of the above statements

A. a and b alone are correct

B. a and c alone are correct

C. b and d alone are correct

D. b and c along are correct

Answer: D

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715. Select the matched ones

Amyloplasts -Store proteins

(b) Mitochondria-power house of cell

(c) Stroma-chlorophyll pigments

(d) Axoneme-9+2 array

A. a and c only

B. b and d only

C. a and d only

D. c and d only

Answer: B



716. I. It is a membrane bound space found in cytoplasmII. It is bound by a single membrane called tonoplast.III. It contains watery sap, excretory products and other materials not useful to cell.

IV. It has higher concentration of sap than the cytoplasm.

The above statements apply to

A. Golgi apparatus

B. Lysosomes

C. Endoplasmic reticulum

D. Vacuoles

Answer: D

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717. The cell organelle bounded by a unit membrane, reported first by Rhodin is involved in reaction

A. Formation of glycolate from phosphoglycolate

B. Conversion of glycerate to PGA

C. Conversion of glycine to serine

D. Conversion of serine to leucine

Answer: A

Watch Video Solution

718. The nucleolus is the site of formation of

A. Spindle fibres

B. Ribosomes

C. Peroxisomes

D. Chromosomes

Answer: B

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719. The plastid which stores oil is known as

A. Amyloplasts

B. Rhodoplasts

C. Chloroplasts

D. Elaioplasts

Answer: D

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720. The Golgi complex plays a major role

A. In post-translational modification of proteins and

glycosidation of lipids

- B. In trapping light and transforming it into chemical energy
- C. In digestion proteins and carbohydrates
- D. As energy transferring organelles

Answer: A Watch Video Solution

721. A major site for synthesis of lipids is

A. Nucleoplasm

B. RER

C. SER

D. Symplast

Answer: C

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722. Which one of the following organelle in the figure corretly matches with is function ?



A. RER, protein synthesis

- B. RER, glycoproteins
- C. Golgi apparatus, protein synthesis

D. Golgi apparatus, formation of glycolipids

Answer: A

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723. select the alternative giving correct identification and function of the organelle 'A' in the diagram (BR) '(##AAK SP2 BOT CO6 EO4 089 Q01##)'

A. Golgi body-provides packaging material

B. Lysosome -Secretes hydrolytic enzymes

C. Endoplasmic reticulum -Synthesis of lipids

D. Mitchondria -produce cellular energy as ATP

Answer: D



724. which of the following typw of plastids does not contain

stored food material?

A. Elaioplasts

B. ALeuroplasts

C. Amyloplasts

D. Chromoplasts

Answer: D



725. The term 'glycoalyx' is used for

- A. Cell wall of bacteria
- B. Bacterial cell glyco-engineered to possess N-

glycosylated proteins

- C. A layer surrounding cell wall of bacteria
- D. A layerr present, between cell wall and membrane of

bacteria

Answer: C

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726. why is a capsule advantageous to a bacterium?

A. It provides means of locomation

B. It allows bacterium to "hide" from host's immune

system

C. It allows the bacterium to attach to the surface

D. it protects the bacterium form desiccation.

Answer: D

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727. Which one contains DNA (i) Mitochondria (ii) Chloroplasts (iii) Golgi bodies (iv) Ribosomes

A. I and II

B. ii and iii

C. I only

D. iv only

Answer: A



728. Assertion . Mitochondria and chloroplasts have their own genome

Reason . Endoplasmic reticulum and Golgi body are the cell organelles which have their own DNA

A. if both are true with reason being correct explanation

B. both true but reason is not correct explanantion

C. assertion is true but reason is wrong

D. and both are wrong

Answer: C

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729. The fluid mosaic model of cell membrane was given by

A. S.J. Singer and G.L. Nicolson

B. S.S. Singer and G.L. Nicolson

C. S.J. Singer and H.L. Nicolson

D. S.S. Singer and J.L. Nicolson

Answer: A

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730. The movement of cilia and flagella is due to the presence

of

A. Central sheath

B. Dynein

C. Radial spokes

D. Singlet tubules

Answer: B

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731. Lysosomes are produced by the :

A. Golgi complex

B. Mitochondria

C. Endoplasmic reticulum

D. Leucoplasts

Answer: A



732. Endoskeleton of cell is

A. cell wall

B. Endoplasmic reticulum

C. Cytoplasm

D. Mitochondria

Answer: B

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733. Microfibrils are composed of

A. Hemicellulose

B. Cellulose

C. Peptidoglycans

D. lignin

Answer: B

Watch Video Solution

734. Interconnected flattened sacs of endoplasmic reticulum

are called

A. Cisternae

B. Ribosomes

C. Tubules

D. Stroma

Answer: A

Watch Video Solution

735. Teichoic acid is present in which component of bacteria

A. Cell wall

B. Plasma membrane

C. Outer membrane

D. Flagella

Answer: A



736. The term episome refers to a type of

A. Plasmid

B. cell wall

C. Membrane

D. Gene

Answer: A



737. Study the following list and find out the correct match

. Low A	in a construction of the second s		II.
(a)	Golgi apparatus	(i)	Conversion of lipid to carbohydrates
(b)	Glyoxysomes	(ii)	Catabolism of long chain of fatty acids
(c)	Peroxisomes	(iii)	Formation of glycoproteins and glycolipids
(<i>d</i>)	Endoplasmic reticulum	(<i>iv</i>)	Synthesis of lipids
		(v)	Osmoregulation.

A. a-iv,b-v,c-I,d-ii

B. a-v,b-iv,c-ii,d-iii

C. a-v,b-I,c-iv,d-ii

D. a-v,b-ii,c-iii,d-iv

Answer: C

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738. Which is correct about the concerned organelles

A. Elaioplasts store starch whereas aleuroplasts store

proteins

B. Acrocentric chromosomes have only one arm

C. The core of cilium or flagellum is the basal body

D. Membranous extension into cytoplasm in cyanobacterium which contains pigments are called chromotophores.

Answer: D

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739. Given below some properties of transport mechanism.

Which of these are true for the facilitated transport

- (i) Require ATP energy
- (ii) Highly selective
- (iii) Uphill transport
- (iv) Requires special membrane proteins
- (v) Transport saturates

A. a and b only

B. c and d only

C. a and c only

D. b and c only

Answer: B



- 740. Choose the matched ones
- (a) Vibrio -Rod shaped bacteria
- (b) Mesosome -Helps in cell wall formation
- (c) Smooth endoplasmic reticulum-Synthesis of lipids
- (d) Vacuoles -Rich in hydrolytic enzymes
 - A. b and c correct
 - B. a and d only
 - C. a, b and c only
 - D. b and d only

Answer: A

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741. Which of these organelles does not contain ribosomes

I. Rough endoplasmic reticulum II . Chloroplast. III. Golgi apparatus IV. Mitochondria

A. I and II

B. I and IV

C. IV only

D. III only

Answer: D



742. One type of chromosome has middle centromere whereas the other has a terminal centromere. They are

A. Metacentric and acrocentric

B. Metacentric and telocentric

C. Submetacentric and telocentric

D. Telocentric and acrocentric

Answer: B



743. The solid linear cytoskeletal elements having a diameter of 6 nm and made up of single type of monomer are known

A. Microfilaments

B. Intermediate filaments

C. Lamins

D. Microtubules

Answer: A



744. Match and select the correct answer

(a)	Centriole	(i)	Infolding in mitochondria
(b)	Chlorophyll	(ii)	Thylakoid
(c)	Cristae	(iii)	Nucleic acids
(<i>d</i>)	Ribozymes	(<i>iv</i>)	Basal body, cilia or flagella

A. a-I,b-ii,c-iv,d-iii

B. a-I,b-iii,c-ii,d-iv

C. a-iv,b-iii,c-I,d-ii

D. a-iv,b-ii,c-I,d-iii

Answer: D

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745. A distinguishing feature of latex cells is that they are

A. Single celled elements with anastomosing branches

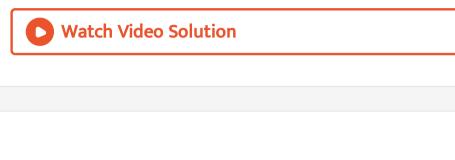
B. Single celled elements with nonanasto mosing

branches

C. Multicelled elemens with anastomosing branches

D. Multicelled elements with nonanastomosing branches

Answer: B



746. The principal function of Golgi apparatus is

A. Producing enzymes

B. Protein synthesis

C. Synthesis of lipids

D. Packaging materials

Answer: D



747. In which cell organelles, genome system is autonomous

A. Ribosomes and chloroplasts

B. Mitochondria and chloroplasts

C. Mitochondria and ribosomes

D. Golgi bodies and ribosomes

Answer: B

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748. Mitochondrial porins are located in

A. Outer membrane

B. Inner membrane

- C. Inter-membrane space
- D. Both outer and inner membranes

Answer: A

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749. Type of transport across the biomembrane without the

help of proteins is

A. Facilitated diffusion

B. Active transport

C. Simple diffusion

D. Diffusion via symport

Answer: C



750.70 S ribosomes occur in

A. Bacteria

B. Mitochondria

C. Chloroplasts

D. All the above

Answer: D



751. These types of vacuole contain hydrolases

A. Sap

B. Contractile

C. Food

D. Air

Answer: C

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752. Pectic polysaccharides are present in

A. Cytoskeleton

B. Plasma membrane

C. Primary cell wall

D. Teritary cell wall

Answer: C

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753. In idiogram , chromosomes of an organism are arranged according to their :

A. Increasing size

B. Decreasing size

C. Position of centromere

D. Number of chromosomes

Answer: B

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754. Flow cytometry allows detection of differences in length

of nucleic acids as small as about

A. 1.5 Mbp

B. 15 Mbp

C. 25 Mbp

D. 100 Mbp

Answer: A

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755. Protoplast lacks

A. Cytoplasm

B. Nucleus

C. Mitochondria

D. cell wall

Answer: D



756. Mitochondria perform all of the following functions except

A. Nucleic acid synthesis

B. Steroid synthesis

C. ATP synthesis

D. Polysaccharide degradation

Answer: D

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757. The functions of peroxisome is

A. To convert H_2O_2 into H_2O and O_2

B. Utilisation of O_2 gas

C. To break toxic molecules of a cell

D. All the above

Answer: D

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758. Transport of RNA and protein through nucleus to cytoplasm is carried out by

A. Plasmodesmata

B. Receptor protein

C. Chaperon

D. Nuclear pore complex

Answer: D

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759. GERL system is formed of

A. Golgi body, endoplasmic reticulum, ribosome and

lysosome

- B. Golgi body, endoplasmic reticulum and lysosome
- C. Golgi body, endoplasmic reticulum and ribosome
- D. Golgi body, ribosome and lysosome

Answer: B



760. Smallest unit in the plant cell wall is

A. Micelle

B. Microfibril

C. Fibril

D. None of these

Answer: A



761. 70 S ribosomes are found in

A. Eukaryotic cell

B. Prokaryotic cell

C. Mitochondria

D. Both B and C

Answer: D



762. Golgi complex is composed of

A. Cisternae, tubules and vacuoles

B. Cisternae, tubules and vesicles

C. Cisternae, vesicles and vacuoles

D. None of the above

Answer: B

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763. Chloroplasts in higher plants -----shaped

A. Kidney

B. Lens

C. Bean

D. Dome

Answer: B

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764. In prokaryotes the Glycocalyx when it is thick is called

A. Mesosome

B. Cell wall

C. Slime layer

D. Capsule

Answer: D



765. Which is correct about the given organelles

A. Both animal and plant cells have a well defined cell wall

B. Cells are formed de nova from abiotic materials

C. Cells of all living organisms have a nucleus

D. In prokaryotes there are no membrane bound cell organelle.

Answer: D



766. Which organelle is not a part of the endomembrane system ?

A. Golgi complex

B. Endoplamic reticulum

C. Mitochondria

D. Vacuoles

Answer: C

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767. Which of the following is correct for the origin of lysosome (L) ?

A. Endoplasmic reticulum-Golgi complex -Lysosomes

B. Nuclear membrane-Golgi complex -Lysosomes

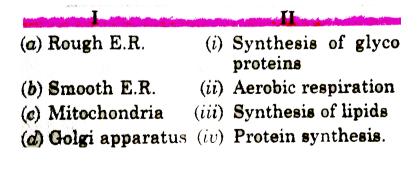
C. Endoplasmic complex-Vacuoles -Lysosomes

D. Mitochondria-Golgi complex -lysosomes

Answer: A

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768. Match the columns and find correct option



A. a-I,b-ii,c-iii,d-iv

B. a-ii,b-iii,c-iv,d-i

C. a-iii,b-iv,c-ii,d-i

D. a-iv,b-iii,c-ii,d-i

Answer: D



769. Nucleosome is made of

A. A vesicle containing positively charged csistones within

nucleolus.

B. They are similar to endosome

C. A structure formed by wrapping of negaively charged

DNA around positively Charged histone octamer

D. They are transforming priniciples discovered by Griffith

Answer: C



770. Nucleosome contains :

A. Only histone protein

B. Both DNA and histone protein

C. Only DNA

D. Both DNA and RNA

Answer: B



771. The eukaryotic cells have all of the following except

A. Peptidoglycan in cell wall

B. 80 S ribosome

C. Nuclear membrane

D. Mitochondria

Answer: A

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772. Which one of the following is correct for the transmembrane proteins in lipid bilayer of plasma membrane?

A. They are absent in animal cells

B. They act as channel proteins

C. They are absent in plant cells

D. They are only externally located

Answer: B

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773. Engulfing of solids materials by cells is called

A. Pinocytosis

B. Phagocytosis

C. Active transport

D. Autolysis

Answer: B

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774. Peroxisomes have

A. Ribosome

B. DNA

C. Catalase enzyme

D. Centrosome

Answer: C

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775. Two membrane envelope is found in

A. Mitochondria , Golgi apparatus and chloroplast

B. Mitochondria, nucleus and chloroplast

C. Nuclear, Gogli apparatus and endoplasmic

D. Nucleus, ribosome and chloroplast.

Answer: B



776. Match the columns and identify the correct options

Column I

Column II

- 1. Thylakoids (i) Disc-shaped sacs in Golgi apparatus
- 2. Cristae (i) Condensed structure of DNA
- 3. Cristarnae (iii) Flat membranous sacs in stroma
 - 4. Chromatin (iv) Infoldings in mitochondria

A. a-iv,b-iii,c-I,d-ii

B. a-iii,b-iv,c-I,d-ii

C. a-iii,b-I,c-iv,d-ii

D. a-iii,b-iv,c-ii,d-i

Answer: B



777. The function of the gap junction is to

A. Cementing to keep neigbouring cells together

B. Facilitate communication between adjoining cells by

connecting their cytoplasms for rapid transfer of ions,

small molecules and some large molecules

C. Separate two cells from each other

D. Stop substance from leaking across a tissue

Answer: B

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778. Protoplasm is

A. Without plasma membrane

B. Without nucleus

C. Undergoing division

D. Without cell wall

Answer: D



779. Cellular organelles with membranes are

A. Nuclei , ribosomes and mitochondria

B. Chromosomes, ribosomes and endoplasmic reticulum

C. Lysososmes, Golgi apparatus and mitochondria

D. Endoplasmic reticulum , Golgi apparatus and

mitochondria

Answer: D



780. Find the correct match

- (a) Golgi apparatus
- (b) Mitochondria
- (d) Cytoskeleton

- (i) Circular DNA molecule
- (ii) Synthesis of carbohydrates
- (c) Chromatophores (iii) Modifications of proteins
 - (iv) Pigments
 - (v) Proteinaceous structures

A. a-ii,b-iv,c-v,d-i

B. a-iii,b-l,c-iv,d-v

C. a-v,b-ii,c-iv,d-iii

D. a-iii,b-v,c-iv,d-i

Answer: B

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781. Ribosomes are essential for protein synthesis but they are present in mitochondria and plastids , the sites of respiration and photosynthesis . What is the role of ribosomes in those organelles ?

A. Ribosomes transport ATP formed in respiration and photosynthesis to cytoplasm through ER

B. Subunits of some required proteins are synthesised in

these organelles

C. Ribosomes transport RNA and DNA to cytoplasm

D. All the above correct

Answer: B



782. Slime layer and capsule in bacteria are modifications of

A. Glycocalyx

- B. Plasma membrane
- C. Pellicle
- D. Tonoplast.

Answer: A



783. Which of these is wrongly matched

A. 70 S ribosomes -Prokaryotes

B. 80 S ribosomes-Eukaryotes

C. Axoneme -Cilia

D. Thylakoids-Chlorophyll

Answer: D

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784. Histones are group of proteins which are rich in basic amino acids and they perform the function of

A. DNA coiling

B. RNA coiling

C. Protein coiling

D. Nucleic acid coiling

Answer: A



785. The packet of thylakoids in a chloroplast is called

A. Free channels

B. Granum

C. Stroma thylakoid

D. Photosynthetic thylakoid

Answer: B



786. Which of the following pairs of organelles is semi-

autonomous

A. Mitochondria and chloroplasts

B. Mitochondria and Golgi body

C. Mitochondria and E.R.

D. Mitochondria and lysosomes

Answer: A

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787. Gram staining procedure of bacteria is based upon the

properties of

A. Cell membrane

B. Cell wall

C. Capsule

D. DNA

Answer: B

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788. Cell membrane is

A. Permeable

B. Impermeable

C. Semi permeable

D. Differentially permeable

Answer: D



789. True nucleus is absent in

A. Bacteria

B. Fungi

C. Bryophytes

D. Pteridophytes

Answer: A

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790. Ribosomes in animal cell were discovered by

A. Robinson and Brown

B. Palade, Claude and De-Duve

C. Robert Hooke

D. Porter

Answer: B

Watch Video Solution

791. How many layers are there in te cell envelope of Gram (-)

ve bacteria

A. 2

B. 3

C. 4

D. 6

Answer: B



792. Porins are

A. Polysaccharides

B. Proteins

C. Nucleic acid

D. Bacteria

Answer: B



793. This is true about phospholipids

A. Amphipathic

B. Are not present in all cell membranes

- C. $> 80 \,\%\,$ in plasma membrane
- D. $<20\,\%$ in plasma membrane

Answer: A

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794. Where proteins in present in biomembrane

A. Extracellular side

B. Intracellular side

C. Interior

D. All of these

Answer: D

Watch Video Solution

795. One of function is to package the material

A. Golgi apparatus

B. Lysosome

C. Endoplasmic reticulum

D. Nucleus

Answer: A

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796. These vacuoles store nutrients

A. Sap

B. Contractile

C. Food

D. Air

Answer: A



797. The symplast comprises network of cytoplasm of cells interconnected by

A. Plasmodesmata

B. Endoplasmic reticulum

C. Suberin

D. Vacuoles

Answer: A



798. The modified cell organelle involved in the formation of

cilium and flagellum is

A. Golgi complex

B. Centriole

C. Stigma

D. Nucleus

Answer: B

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799. Cell wall of both bacteria and cyanobacteria contians

A. Lipid

B. Pectin

C. Protein

D. Muramic acid

Answer: D

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800. Which of the following pigments are not stored in cell organelle

A. Carotenes

B. Anthocyanins

C. Xanthophylls

D. Chlorophylls

Answer: B

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801. Respiratory enzymes occur in bacterium in

A. Plasma membrane

B. Mitochondria

C. Golgi apparatus

D. E.R.

Answer: A



802. In Amoeba, whenever soluble organic substance and salts are absorbed , the mode of nutrition is called

A. Halozoic

B. Pinocytosis

C. Holophytic

D. Symbiosis

Answer: B

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803. Which statement is not correct

A. Histones rich in arginine are H_3 and H_4

B. Nucleolar organiser is found in the secondary

constriction of a chromosome

C. Polytene chromosomes are found in chironomus

D. B-chromosomes are genetically active.

Answer: D

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804. Mitochondrial matrix contains

A. DNA

B. Ribosomes

C. Insoluble inorganic salts

D. All the above

Answer: D



805. Cell wall polysaccharide synthesis, suphur metabolism, acrosome formation and glycosidation of proteins are the functions of

A. Golgi complex

B. Lysosome

C. Endoplasmic reticulum

D. Peroxisomes

Answer: A

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806. Peroxisome' is the microbody of a cell that helps in

A. Removal of electrons and associated hydrogen

B. Removal of proton

C. Conversion of carbohydrate into fat

D. Conversion of carbohydrate into protein

Answer: A

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807. Which one of the following matching pairs is WRONG

A. Bacterial cell wall-Peptidoglycan

B. Bacterial ribosome-16 S rRNA

C. Bacteria flagella-Protein

D. Bacterial glycocaly -Cellulose

Answer: A

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808. Nucleosome core is intimately associated with

A. 160 bp DNA

B. 210 bp DNA

C. 250 bp DNA

D. 100 bp DNA

Answer: A



809. Match the columns and find the correct option

I		II
(p) Plasma membrane	(<i>i</i>)	Hemicellulose
mainly contains	(ii)	Calcium pectate
(q) Middle lamella is	(iii)	Proteinaceous
mainly composed of		filaments
	(<i>iv</i>)	Proteins embedded in phospholipid bilayer

A. p-ii,q-i

B. p-l,q-ii

C. p-iv,q-ii

D. p-iii,q-iv

Answer: C



810. In plants, both cellulose and hemicellulose are major components of which one of the following

A. Plasma membrane

B. Cell wall

C. Nuclear membrane

D. Mitochondria membrane

Answer: B

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811. Mitochondria and chloroplast are

(a) semi-autonomous organelles

(b) formed by division of pre-existing organelles and they

contain DNA but lack protein synthesizing machinery Which one of the following options is cor-rect?

A. Both a and b are false

B. Both a and b are correct

C. b is true but a is false

D. a is true but b is false.

Answer: D

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812. A complex of ribosomes attached to a single strand of

RNA is known as.

A. Okazaki fragment

B. Polysome

C. Polymer

D. Polypeptide

Answer: B



813. Microtubules are the constituents of

A. Centrosome, nucleosome and centrioles

B. Cilia, flagella and peroxisomes

C. Spindle fibres, centrioles and cilia

D. Centrioles, spindle fibres and chromatin.

Answer: C

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814. Select the wrong statement

A. Mycoplasma is a wall less microoganisms

B. Bacterial cell wall is made up of peptidoglycan

C. Pili and fimbriae are mainly involved in mobility of

bacterial cells

D. Cyanobacteria lack flagellated cells

Answer: C

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815. A cell organelle containing hydrolytic enzymes is

A. Mesosomes

B. Lysosome

C. Microsomes

D. Ribosomes

Answer: B



816. Which one of the following is correct for the transmembrane proteins in lipid bilayer of plasma membrane?

A. They are absent in animal cells

B. They act as channel proteins

C. They are absent in plant cells

D. They are only externally located

Answer: B



817. Assertion : Gap junctions perform cementing function to keep the neighbouring cells together.

Reason : Tight junctions facilitate the cells to communicate with each other by connecting the cytoplasm of adjoining cells, for rapid transfer of ions, small and big molecules, etc.

A. if both are true with reason being correct explanation

B. both true but reason is not correct explanantion

C. assertion is true but reason is wrong

D. both are wrong

Answer: D



818. Which of the following cell organelles is responsible for extracting energy from carbohydrates to form ATP ?

A. Lysosome

B. Ribosome

C. Chloroplast

D. Mitochondrion

Answer: D

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Check Your Grasp

1. Butter Sandwich model of plasma membrane was proposed

by

A. Danielli

B. Robertson

C. Overton

D. Danielli and Davson.

Answer:





- 2. The term plasmalemma was coined by
 - A. Nageli and Cramer
 - B. Plowe
 - C. Metchnikoff
 - D. Lewis.

Answer:



3. Ion channels have been discovered by

A. Singer and Nicolson

B. Garnier

C. Robinson and Brown

D. Neher and Sakmann.

Answer:



4. Difference between active and passive modes of membarane transport is

A. Active transport is confined to cations while passive is

connected to anions

B. Active transport is non-selective while passive one is

selective

C. Active transport requires metabolic energy while

passive transport required concentration gradients

D. Active transport is more rapid.

Answer:



5. Enzyme facilitating transport across the membrane is

A. Ligase

B. Lipase

C. Endonuclease

D. Permease

Answer:



6. The term protoplast was coined by

A. Hanstein

B. Strasburger

C. Flemming

D. Dodge

Answer:



7. Which is true ?

A. Cotton fibre is made of 1500 fibrils

B. A fibrils has 250 microfibrils

C. A microfibril has 20 micelles

D. All the above

Answer:



8. Tertiary wall contains

A. Lignin and cellulose

B. Lignin, cellulose and suberin

C. Cellulose and xylans

D. Cellulose.

Answer:

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9. Ronald Ross discovered

A. Polyribosomes

B. Palade granules

C. Microsomes

D. Lysosomes.

Answer:



10. Golgi appratus was first seen by

A. Glogi

B. Mollenhauer and Whaley

C. Dalton and Felix

D. George

Answer:

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11. Ergastoplasm is the alternate name of

A. Endoplasmic reticulum

B. Ribosomes

C. Idioblast

D. Ectoplast.

Answer:



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12. S.E.R takes part in synthesis of

A. Steroid synthesis

B. Detoxification

C. Both A and B

D. Nissl granules.

Answer: C

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13. Lysosomes were first discovered by

A. Palade

B. Benda

C. Fernandes-Morgan

D. Luch and Rich

Answer:



14. Protein storing plastid is

A. Aleuroplasts

B. Aleuronoplasts

C. Protoplasts

D. Autoplasts

Answer:

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15. Artifical radioactivity was first discovered by

A. Microtubules

B. Microfilaments

C. Centrioles

D. Peroxisomes

Answer:

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16. Nucleoplasmin occurs inside

A. Chromatin

B. Nucleolus

C. Nucleoplasm

D. Nuclear pores.

Answer:



17. A microtubule is made of

A. A single microtubule

B. Bundle of microtubules

C. A single microfilament

D. Bundle of microfilaments.

Answer:

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