BIOLOGY

BOOKS - MCGROW HILL EDUCATION

BIOLOGY (HINGLISH)

STRUCTURE OF A CELL

Elementary Question

1. Choose the difference between prokaryotes and enkaryotes ?

A. prokaryotes have RNA , eukaryotes have DNA

B. prokaryotes have a nucleoid ,eukaryotes have a nucleus

C. prokaryotes have DNA ,eukaryotes have RNA

D. prokaryotes have a nucleus , eukaryotes have a nucleoid

Answer: B

View Text Solution

2. Who is known as the father of Microscopy ?

A. Leuwenhoek

B. T.Schwann

C. H.G Khorana

D. M.J Schleiden

Answer: A

View Text Solution

3. Depending upon their shape bacteria can be classified as

A. coccus,Bacillus , Spiral

B. coccus , helix ,spiral

C. coccus,Spiral,Spindle

D. spiral ,Helix, Bacillus

Answer: A

View Text Solution

4. The Gram's stain used to stain bacteria is

A. safranin and iodine

B. cotton blue and iodine

C. crystal violet and iodine

D. crystal violet and coton blue

Answer: C

View Text Solution

5. Bacterial cell wall is composed mainly of

A. cellulose

B. chitin

C. pepitodoglycan

D. pectin

Answer: C

View Text Solution

6. The Capsule is advantageous to bacterium because it

A. allows bacterium to attach to surfaces

B. allows bacterium to attach to surfaces

C. protects it from desiccation

D. provides means of locomotion

Answer: A

View Text Solution

7. Prokaryotic genes contain

A. DNA and histones

B. DNA but no histones

C. neither DNA nor histones

D. either DNA or histones

Answer: B

View Text Solution

8. All bacteria have which of the following

A. mesosomes

B. mitochondria

C. chloroplast

D. golgi complex

Answer: A

View Text Solution

9. Bacteria lack

A. cell wall

B. cell membrane

C. mitochondria

D. cytoplasm

Answer: C

View Text Solution

10. Site of respiration in bacteria is

A. episome

B. mesosome

C. ribosome

D. mitochondria

Answer: B

View Text Solution

11. Cell wall is

A. permeable

B. selectively permeable

C. impermeable

D. differentially permeable

Answer: A

View Text Solution

12. The chemical substance present most abundantly in the middle lamella is

A. calcium pecitinate

B. suberin

C. lignin

D. lamellenin

Answer: A

View Text Solution

13. Basic unit of plasma membrane is

A. cellulose and carbohydrate

B. protein and phospholipid

C. protein and cellulose

D. protein and carbohydrate

Answer: B

View Text Solution

14. The most abundant lipid in a cell membrane is

A. phospholipid

B. steroid

C. chloesterol

D. cutin

Answer: A

View Text Solution

15. The main function of plasma membrane

A. maintain cell shape and size

B. eontrol of all cellular activity

C. regulate the flow of materials into and out of the cell

D. store cell material

Answer: C

View Text Solution

16. Liquid food drinking is called

A. pinocytosis

B. phagocytosis

C. imbibition

D. exocytosis

Answer: A

View Text Solution

17. Which of the followin is a type of intercellular junction between animal cells?

A. middle lamella

B. plasmodesma

C. desmosome

D. glycocalyx

Answer: C

View Text Solution

18. Ribosome was discovered by

A. schleiden

B. palade

C. muller

D. ochoa

Answer: B

View Text Solution

19. Chemical nature of ribosomes is

A. proteins and RNA

B. beta galactosidase

C. proteins and lipids

D. glucose and mannans

Answer: A

View Text Solution

20. Ribosomes of bacteria , mitochondria and chloroplasts are

A. 50 S

B. 80 S

C. 70 S

D. 30 S

Answer: C

View Text Solution

21. Eukaryotic 80S ribosomes are composed of 2 subunits of

A. 40 S and 40 S

B. 50 S and 30 S

C. 60 S and 40 S

D. 50 S and 50 S

Answer: C

View Text Solution

22. Which of the following does not have DNA ?

A. nucleus

B. mitochondria

C. ribosomes

D. chloroplast

Answer: C

View Text Solution

23. Which ion holds ribosomal units together ?

A. Ca^{2+}

B. Mn^{2+}

C. Mg^{2+}

D. Na^{+}

Answer: C

View Text Solution

24. The fine network of membrane distributed throughout the cytoplasm in a cell is

A. golgi body

B. endoplasmic reticulum

C. chromatin

D. lysosomes

Answer: B

View Text Solution

25. Smooth ER is well developed in cells that synthesize

A. steroids and lipids

B. proteins

C. carbohydrates

D. all of the above

Answer: A

View Text Solution

26. Granular endoplasmic reticulum is involved in

A. proteolysis

B. peptide bond formation

C. glycosidic bond formation

D. fatty acid and cholestrol synthesis

Answer: B

View Text Solution

27. If cells are broken up and spum in a centrifuge , the new structure formed in one of the fractions is

A. lysosome

B. microsome

C. ribosome

D. centrosome

Answer: B

View Text Solution

28. Golgi apparatus is absent in

A. liver cells

B. higher plants

C. blue green algae

D. yeast

Answer: C

View Text Solution

29. The golgi complex plays a major role in

A. digesting proteins and carbs

B. in trapping light and transforming it into chemical energy

C. in glycosidation of lipids and proteins to produce glycolipids and glycoproteins

D. as energy transferring organelles

Answer: C

View Text Solution

30. The golgi complex plays a major role in

A. digesting proteins and carbs

B. in trapping light and transforming it into chemical energy

C. in glycosidation of lipids and proteins to produce glycolipids and glycoproteins

D. as energy transferring organelles

Answer: A

View Text Solution

31. Besides giving out secretory vesicles the golgi complex is also concerned with the formation of

A. lysosomes

B. plastids

C. grana of chloroplast

D. cell plates during cell division

Answer: C

View Text Solution

32. Mitochondria were first observed by

A. Robert Brown

B. Robert Hook

C. Altman

D. Swanson

Answer: D

View Text Solution

33. In living cells mitochondria can be stained with

A. neutral red

B. crystal violet

C. aceto-orcein

D. janus green

Answer: C

View Text Solution

34. The inner membrane of mitochondrion is usually highly convoluted forming a series of in-folding known as

A. thylakoids

B. grana

C. cristae

D. lamella

Answer: D

View Text Solution

35. In mitochondria, cristae acts as sites for

A. protein synthesis

B. breakdown of macromolecules

C. flavoprotein phosphorylation

D. oxidation-reduction reactions

Answer: C

View Text Solution

36. The membrane bound enzyme involved in Kreb's cycle in mitochondria is

A. fumerase

B. cis-aconitase

C. succinic dehydrogenase

D. malate dehydrogenase

Answer: C

View Text Solution

37. Cell organelle, which has electron transport system is

A. centriole

B. ER

C. mitochondria

D. nucleolus

Answer: C

View Text Solution

38. Thylakoids are found commonly in plastids of

A. blue green algae

B. bacteria

C. higher plants

D. all of the above

Answer: A

View Text Solution

39. The pigment molecules of a chloroplast are located in

A. within its thylakoids membranes

B. within the space between outer and inner membranes

C. within its inner membrane

D. on the outer membrane

Answer: C

View Text Solution

40. Green pigments that are capable of trapping sunlight energy are located in

A. ER

B. cell wall

C. chloroplast

D. ribosomes

Answer: A

View Text Solution

41. The plastids that give fruits and flowers their orange and yellow colours are

A. chromoplasts

B. coloroplasts

C. cyanoplasts

D. anthoplasts

Answer: B

View Text Solution

42. Lysosomes are also known as "suicide bags" because of

A. catelytic activity

B. hydrolytic activity

C. parasitic activity

D. saprophytic activity

Answer: C

View Text Solution

43. Which of the following organelles are cellular garbage disposal system?

A. endoplasmic reticulum

B. golgi complex

C. lysosomes

D. mitochondria

Answer: C

View Text Solution

44. Lysosomes are generally found in

A. animal cells

B. plant cells

C. both plant and animal cells

D. bacterial cells

Answer: A

View Text Solution

45. Which of the following structures is exception-ally rich in hydrolytic enzymes?

A. lysosomes

B. microsomes

C. chromosomes

D. ER

Answer: A

View Text Solution

46. Lysosomes are surrounded by

A. one membrane

B. two membranes

C. three membranes

D. none of the above

Answer: A

View Text Solution

47. Function of a Centriole is

A. formation of spindle fibers

B. formation of nucleolus

C. initiation of cell division

D. formation of cell plate

Answer: A

View Text Solution

48. Function activities of a cell are controlled by

A. nucleus

B. nucleolus

C. mitochondria

D. cytoplasm

Answer: A

View Text Solution

49. The chief role of the nucleolus in a nucleus is

A. ribosome synthesis

B. chromatid separation

C. organization of chromosomes

D. DNA replication

Answer: B

View Text Solution

50. The term Chromosomes was coined by

A. Johanssen

B. Waldeyer

C. Bender

D. Flemming

Answer: D

View Text Solution

51. Chromosomes are made up of

A. DNA

B. RNA

C. DNA and RNA

D. DNA and proteins

Answer: D

View Text Solution

52. Chromosomes are concerned with

A. respiration

B. assimilation

C. nutrition

D. transmission of hereditary characters

Answer: C

View Text Solution

53. Chromosomes having arms of equal length's are called

A. telocentric

B. acrocentric

C. metacentric

D. concentric

Answer: B

View Text Solution

54. A chromatid represents

A. complete chromosome

B. one half of a chromosome

C. haploid number

D. a genome

Answer: A

View Text Solution

55. A cell adapted for waste storage and disposal would probably contain a large number of

A. vacuoles

B. mitochondria

C. ER

D. nuclei

Answer: A

View Text Solution

56. Which of the following can be used to look for congenital defects in unborn babies?

A. karyotyping

B. X-rays

C. cell cultures

D. blood testing

Answer: D

View Text Solution

57. Ultimately all cellular membranes come from

A. the cell membrane

B. the cell wall

C. ER and Golgi

D. vesicles

Answer: B

View Text Solution

58. In bacteria the plasmid is

A. main DNA

B. extra -chromosomal DNA

C. non - functinal DNA

D. repetitive gene

Answer: B

View Text Solution

59. The major function of Contractile Vacuole is

A. osmoregulation

B. excretion

C. storage

D. circulation

Answer: A

View Text Solution

60. The chromosome that lacks a centromere is called

A. telocentric

B. acentric

C. metacentric

D. telocentric

Answer: B

View Text Solution

61. Dissulphide bonds acting as polypeptide staples are formed in

A. lysosomes

B. ER

C. cytosol

D. golgi complex

Answer: B

View Text Solution

62. Plasmodesmata connections help in

A. cytoplasmic streaming

B. synchronous mitotic divisions

C. locomotion of unicellular organisms

D. movement of substances between cells

Answer: D

View Text Solution

63. Ribosomes are classified as per their

A. size

B. weight

C. sedimentation rate

D. volume

Answer: C

View Text Solution

64. Nucleosome is made of

A. only DNA

B. the histones with DNA wrapped around them

C. histones

D. DNA and RNA

Answer: B

View Text Solution

65. Balbiani rings occur in

A. lampbrush chromosomes

B. hetersomes

C. allosomes

D. polytene chromosomes

Answer: D

View Text Solution

66. Plant cells store fat in

A. peroxisomes

B. sphaerosomes

C. lysosomes

D. microsome

Answer: B

View Text Solution

67. Main function of dictyosome is

A. storage

B. secretion

C. respiration

D. fat breakdown

Answer: B

View Text Solution

68. Membrane fluditiy is maintained in cold weather by

A. increasing the proportion of integral proteins

B. increasing the number of phosholipids with unsaturated hydrocarbon tails

C. increasing the concentration of cholesterol in membrane

D. increasing the number of phospholipids with saturated hydrocarbon tails

Answer: C

View Text Solution

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

A. presence of pigments

B. ability to multiply by a fission like process

C. presence of thylakoids and grana

D. storage of starch , proteins and lipids

Answer: B

View Text Solution

70. Strength and rigidly of cell wall is due to

A. suberin

B. lignin

C. cellulose

D. pectin

Answer: B

View Text Solution

71. When flagella are distributed all around a bacterial cell , the arrangement is called ?

A. polar

B. random

C. peritrichous

D. encapsulated

Answer: C

View Text Solution

72. Flagella and pili are made of

A. lipids

B. carbohydrates

C. nucleic acids

D. protein

Answer: D

View Text Solution

73. The suffix 'S' used with the description of ribosomal units stands for

A. solubility

B. surface area

C. size

D. sedimentation coefficient

Answer: D

View Text Solution

Higher Order Thinking Questions

1. What is the innermostportion of a mature plant cell wall called ?

A. primary cell wall

B. secondary cell wall

C. lamella

D. tonoplast

Answer: B

View Text Solution

2. According to fluid -mosaic model the correct sequence of plasmalemma is

A. L-P-P-L

B. P-P-L-L

C. P-P-L-L

D. L-P-L-P

Answer: B

View Text Solution

3. All of the following are membrane bound organelles except

A. mitochondria

B. lysosomes

C. ribosomes

D. sphaerosomes

Answer: C

View Text Solution

4. Of the following , what do mitochondria and chloroplast have in common

A. DNA is present

B. ATP is produced

C. ribosomes are present

D. all of the above

Answer: D

View Text Solution

5. Chloroplasts are considered as self replicating units as they contain

A. DNA

B. RNA

C. both DNA and RNA

D. neither DNA or RNA

Answer: C

View Text Solution

6. When green tomatoes turn into red then ,

A. chloroplasts are changed into chromoplasts

B. chromoplasts are changed into chloroplasts

C. new chromoplasts are made

D. all of the above

Answer: A

View Text Solution

7. In fluid mosaic model of plasma membrane

A. upper layer is non -polar and hydrophillic

B. upper layer is polar and hydrophobic

C. phosholipids form a bimolecular layer in middle part

D. proteins form the middle layer

Answer: C

View Text Solution

8. Phagosomes and pinosomes are collectively called

A. residual bodies

B. autophagic bodies

C. endosomes

D. digestive vacuoles

Answer: C

View Text Solution