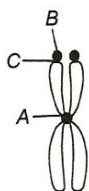


Class : XIth
Date :

Subject : BIOLOGY
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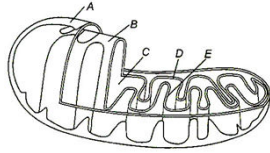
Topic :- Cell the Unit of Life

1. Which of the following is the correct representation of A, B and C in the given figure of a chromosome?



- A-Centromere, B-Satellite, C-Secondary constriction
 - A-Centromere, B-Satellite, C-Primary constriction
 - A-Centriole, B-Satellite, C-Primary constriction
 - A-Centriole, B-Satellite, C-Secondary constriction
2. In the DNA molecule,
- The total amount of purine nucleotides and pyrimidine nucleotides is not always equal
 - There are two strands, which run parallel in the 5'→3' direction
 - The proportion of adenine in relation to thymine varies with the organism
 - There are two strands, which run antiparallel-one in 5'→3' direction and other in 3'→5'
3. The Z-DNA helix is left handed and has a structure that repeats every
- 2 base pairs
 - 3 base pairs
 - 4 base pairs
 - 4 base pairs
4. The inward movement of ions into the cells is
and the outward movement is....
- Influx, efflux
 - Efflux, influx
 - Absorption, adsorption
 - Adsorption, absorption

5. Go through the sectional view of a mitochondrion showing the different parts and identify the structures A to E



- a) A-Outer membrane, B-Inner membrane, C-Matrix, D-Inter membrane space, E-Crista
 b) A-Outer membrane, B-Inner membrane, C-Inter-membrane space, D-Matrix, E-Crista
 c) A-Outer membrane, B-Inner membrane, C-Matrix, D-Crista, E-Inter membrane space
 d) A-Outer membrane, B-Inner membrane, C-Crista, D-Matrix, E-Inter-membrane space
6. Centrioles arise
 a) From pre-existing centrioles
 b) *de novo*
 c) From spherosome
 d) From nuclear envelope
7. If there are 120 adenine molecules in a B-DNA double helical structure showing 20 coils, what is the number of pyrimidine nucleotides forming three hydrogen bonds in it?
 a) 80 b) 100 c) 120 d) 140
8. Flocculation or coagulation of protoplasm is the
 a) Interchangeability between sol and gel states
 b) Ability to scatter that beam of light
 c) Erratic zig-zag movement of protoplasmic particles
 d) Ability of protoplasm to increase in size when they lose charges
9. Nucleolus is
 a) Rounded structure found in cytoplasm near nucleus
 b) Rounded structure inside nucleus and having *r*RNA
 c) Rod-shaped structure in cytoplasm near the nucleus
 d) None of the above
10. The process by which cells loose their specialisation is called
 a) Differentiation b) Undifferentiation c) Dedifferentiation d) Premitotic division
11. Which one of the following nitrogenous bases is seen only in RNA?
 a) Adenine b) Thymine c) Uracil d) Cytosine
12. Golgi complex works for
 a) Excretion b) Respiration c) Secretion d) Reduction

13. Which statement is not true about prokaryotes?
 a) DNA is completed with histones b) Well-developed nucleus is absent
 c) Mesosome is present d) Mitochondria is absent
14. Which is not correct according to Chargaff's rule?
 a) $A + T = C + G$ b) $A + G = C + T$ c) $\frac{A + G}{C + T} = 1$ d) None of these
15. During DNA replication in prokaryotes, DNA is anchored to
 a) Chromosome b) Mesosome c) Nucleolus d) Ribosome
16. Correct sequence of layers of bacterial cell envelope is
 a) Cell membrane → glycocalyx → cell wall
 b) Glycocalyx → cell wall → cell membrane
 c) Glycocalyx → cell membrane → cell wall
 d) Cell wall → glycocalyx → cell membrane
17. What is true about tRNA?
 a) It binds with an amino acid at its 3' end
 b) It has five double stranded regions
 c) It has a codon at one end which recognises the anticodon on messenger RNA
 d) It looks like clover leaf in the three dimensional structure
18. The endoskeleton of cell is made up of
 a) Deutoplasm b) Protoplasm
 c) Endoplasmic reticulum d) Cell wall
19. Autonomic genome system is present in
 a) Ribosomes and Golgi bodies b) Golgi bodies and mitochondria
 c) Mitochondria and chloroplasts d) Chloroplasts and ribosomes
20. Choose the correct statements
 I. Passive cells are larger in size
 II. Larger cells have lower surface volume ratio
 III. To remain active, larger cells are either cylindrical in shape or possess several extensions of the cell membrane, like microvilli
 IV. Microvilli are found in all those cells, which are active in absorption
 V. Microvilli (membrane infoldings) occurs in transfer cells found in plants in the region of absorption or secretion of nutrients
 Option containing all correct statements is
 a) I and IV b) I, II, III and IV c) I, III and II d) I, II, III, IV and V