Appendices
APPENDIX – I

Achievement Test

Note: There are 55 questions in this set. You need to answer all of them. Each question has four options, out of which one is correct. Write the correct response in the given answer sheet.

1. The basic structural and functional unit of Life is -
   a) Cell
   b) Tissue
   c) Organ
   d) Organism

2. The term ‘Cell’ was given by -
   a) Leeuwenhoek
   b) Robert Hooke
   c) Fleming
   d) Robert Brown

3. The largest animal cell is -
   a) Ostrich egg
   b) Amoeba cell
   c) P.P.L.O. Bacterium
   d) Viral Cell

4. The largest cell in the human body is -
   a) Muscle cell
   b) Liver cell
   c) Kidney cell
   d) Nerve cell

5. Organisms lacking nucleus and membrane bound organelle are -
   a) Diploids
   b) Haploids
   c) Prokaryotes
   d) Eukaryotes

6. Cell wall is found in -
   a) Plant cell
   b) Animal cell
   c) Both in plant and animal cell
   d) Nerve cell
7. The outermost membrane in an animal cell is -
   a) Shell membrane
   b) Plasma membrane
   c) Nuclear membrane
   d) Cell wall

8. Animal cell lacking nuclei would also lack in -
   a) Chromosome
   b) Ribosome
   c) Endoplasmic Reticulum
   d) Lysosome

9. A plant cell differs from an animal cell in the presence of -
   a) Mitochondria
   b) Ribosomes
   c) Endoplasmic reticulum
   d) Chloroplast

10. The 'suicidal bag' of cell is -
    a) Centrosome
    b) Lysosome
    c) Mesosome
    d) Chromosome

11. The power house of cell is -
    a) Chloroplast
    b) Mitochondrion
    c) Golgi apparatus
    d) Nucleolus

12. The 'kitchen of the cell' is -
    a) Ribosome
    b) Nucleus
    c) Chloroplast
    d) Cytoplasm

13. Lysosomes are reservoirs of -
    a) Fat
    b) RNA
    c) Secretary glycoproteins
    d) Hydrolytic enzymes

14. The membrane surrounding the vacuole of a plant cell is called -
    a) Tonoplast
    b) Chloroplast
    c) Plasmamembrane
    d) Chromoplast
15. Centromere is part of chromosome which helps in -
   a) Division of centrosome
   b) Formation of spindle fibres
   c) Movement of chromosome
   d) Reappearance of nuclear membrane

16. Within a cell; the site of respiration is the -
   a) Golgi apparatus
   b) Mitochondrion
   c) Nucleus
   d) Ribosome

17. Ribosomes are present in -
   a) Nucleus
   b) Chromosome
   c) Endoplasmic Reticulum
   d) Golgi complex

18. Ribosomes are the centre of -
   a) Fat synthesis
   b) Photosynthesis
   c) Respiration
   d) Protein synthesis

19. Centriole is associated with -
   a) DNA synthesis
   b) Reproduction
   c) Spindle formation
   d) Respiration

20. Division of cytoplasm is known as -
   a) Cyclosis
   b) Cytokinesis
   c) Karyo-kineses
   d) Plasmolysis

21. The term 'Mitosis' was given by -
   a) Leeuwenhoek
   b) Robert Brown
   c) Walther Flemming
   d) Watson and crick

22. Division of Nucleus is known as -
   a) Cytokinesis
   b) Karyokinesis
   c) Cell Division
   d) Plasmolysis
23. Genetic variations occur due to -
   a) Crossing over  
   b) Protein synthesis  
   c) Formation of spindle Fibres  
   d) Cytokinesis

24. Genes are located on -
   a) Chromosomes  
   b) Ribosomes  
   c) Nucleolus  
   d) Nuclear membrane

25. Meiosis occur in -
   a) All cells  
   b) Sex cells  
   c) Vegetative cells  
   d) None of the above

26. The stage which marks the beginning of cell division is -
   a) Interphase  
   b) Metaphase  
   c) Anaphase  
   d) Prophase

27. The phase of Mitosis in which maximum condensation of chromosomes occur is -
   a) Prophase  
   b) Metaphase  
   c) Anaphase  
   d) Interphase

28. Separation of sister chromatids occur in -
   a) Prophase  
   b) Telophase  
   c) Metaphase  
   d) Anaphase

29. First Division of Meiosis is -
   a) Equational  
   b) Reductioanl  
   c) Reconstitutional  
   d) Homotypic
30. During Meiosis, exchange of genes between non-sister chromatids occur in -
   a) Prophase – I
   b) Prophase – II
   c) Metaphase – I
   d) Metaphase – II

31. Reorganization of Nuclei at the poles of the dividing cell occur in -
   a) Metaphase
   b) Telophase
   c) Anaphase
   d) Prophase

32. If Mitosis becomes uncontrolled, it may cause -
   a) Typhoid
   b) Malaria
   c) Cancer
   d) AIDS

33. The longest stage in the first division of Meiosis is -
   a) Prophase – I
   b) Metaphase – I
   c) Telophase – I
   d) Anaphase – I

34. A child inherits some of its traits from the mother and some from the father because of -
   a) Mitosis
   b) Cleavage of fertilized egg.
   c) Crossing over of two parental gene-segments
   d) All the above

35. Synapsis occur during -
   a) Meiosis
   b) Mitosis
   c) Amitosis
   d) Photosynthesis

36. Asexual reproduction of unicellular organisms is due to -
   a) Mitosis
   b) Meiosis
   c) Both mitosis and Meiosis
   d) None of the above
37. The point where two of the four chromatids cross each other is known as -
   a) Chromomere
   b) Centromere
   c) Chiasmata
   d) Kinetochore

38. The Nucleic acid containing hereditary information is -
   a) RNA
   b) DNA
   c) PAN
   d) Both DNA and RNA

39. After Meiosis, a Diploid cell will result in formation of -
   a) Two Haploid cells
   b) One Diploid cell
   c) Four Diploid cells
   d) Four haploid cells

40. DNA replication takes place in -
   a) Telophase
   b) Metaphase
   c) Interphase
   d) Prophase

41. Total number of chromosomes present in human cells is -
   a) 48
   b) 64
   c) 23
   d) 46

42. A cell has 4 chromosomes. After mitotic cell division, the number of chromosomes in the daughter cell will be -
   a) 8
   b) 4
   c) 16
   d) 32

43. The process which helps in healing of wound is -
   a) Meiosis
   b) Mitosis
   c) Chemosynthesis
   d) Both mitosis and Meiosis
44. Daughter cell and parent cell have identical chromosomes in -
   a) Mitosis
   b) Meiosis
   c) Both Mitosis and Meiosis
   d) Amitosis

45. The characters of an individual is determined by -
   a) Lysosome
   b) Ribosome
   c) Mesosome
   d) Chromosome

46. The process of making food by plants is termed as -
   a) Transpiration
   b) Respiration
   c) Photosynthesis
   d) Translocation

47. The vascular tissue in plants consists of -
   a) Xylem only
   b) Xylem and Phloem
   c) Phloem only
   d) Neither Xylem nor Phloem

48. The source of energy for photosynthesis is -
   a) Water
   b) Chlorophyll
   c) Sunlight
   d) Oxygen

49. Plants are also called as -
   a) Herbivore
   b) Producers
   c) Consumers
   d) Decomposers

50. The Photosynthetic organelle is -
   a) Chloroplast
   b) Mitochondria
   c) Cytoplasm
   d) Nucleus

51. Chlorophyll is the -
   a) Red pigment
   b) Green pigment
   c) Brown pigment
   d) Blue pigment
52. The end products of photosynthesis are -
a) Glucose and carbon-di-oxide
b) Water and carbon-di-oxide
c) Glucose and oxygen
d) Oxygen and carbon-di-oxide

53. During photosynthesis, solar energy is converted into -
a) Chemical energy
b) Kinetic energy
c) Electric energy
d) Mechanical energy

54. The stage when rate of respiration becomes equal to rate of photosynthesis is called as -
a) Dialysis
b) Automatic point
c) Equatorial point
d) Compensation point

55. Rate of photosynthesis is highest in -
a) Red light
b) Violet light
c) Green light
d) Blue light
ANSWER SHEET

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