**Paper Code - 3028**

**B.Sc. Semester-I (Biotechnology)Old Course**
**July-September-2021**
**CBT-I-I Introduction to Biotechnology and cell Biology**

**કુલ સમય :– ૬૦ મીનીટ  કુલ પ્રશ્નો : ૫૦  વિદ્યાર્થીએ ટીક કરવાના પ્રશ્નો : ૩૫**

**નોંધ : વિદ્યાર્થીએ માત્ર ૩૫ પ્રશ્નો જ ટીક કરવાના રહેશે. જો વધારે ટીક કરેલ હશે તો પ્રથમ ૩૫ પ્રશ્નો જ ગણતરીમાં લેવામાં આવશે.**

1. Biotechnology is a branch of _____
   A. Bio + Technology  B. Biology + Zoology  C. Bio + Chemistry  D. Bio+ Micro +Botany
2. Green biotechnology included
   A. Pharma  B. Medical  C. Agriculture  D. All
3. BT-Cotton is a ?
   A. Transgenic  B. clone  C. Resistance  D. Biotech-cotton
4. The Golden Rice variety is rich in
   A. Vitamin C  B. B-carotene and ferritin  C. Biotin  D. Lysine
5. The first transgenic plant to be produced is
   A. Brinjal  B. Tobacco  C. Rice  D. Cotton
6. The term cell was given by
   A. Robert Hooke  B. Tatum  C. Schwann  D. De Bary
7. Microfilaments are composed of a protein called
   A. Tubulin  B. Actin  C. Myosin  D. Chitin
8. A plant cell wall is mainly composed of
   A. Protein  B. Cellulose  C. Lipid  D. Starch
9. Which cell organelle is involved in apoptosis?
   A. Lysosome  B. ER  C. Golgi  D. Mitochondria
10. Use of single stain to color the bacteria is commonly called as
    A. Monochrome staining  B. Gram staining  C. Differential Staining  D. all of the above
11. In Gram Staining, Gram's iodine is act as
    A. Counter stain  B. primary stain  C. Secondary stain  D. Mordant
12. In Gram Staining, Differentiation of microorganisms based on
    A. Cell wall  B. Plasma membrane  C. Capsule  D. All of the above
13. Basic unit used for virus measurement is
    A. Micrometer  B. Nanometer  C. Milimeter  D. All of the above
14. Ocular 10x and Objective 40x total Magnification is ?
    A. 20 times  B. 40 times  C. 400 times  D. 4 times
15. Refractive index of air
    A. 0.50  B. 1.00  C. 0.76  D. 0.23
16. Oil immersion objective lens has an NA value of_____
    A. 0.65  B. 0.85  C. 1.33  D. 1.00
17. Which part of the light microscope controls the intensity of light entering the viewing area?
    A. Coarse adjustment screw  B. Fine adjustment screw  C. Diaphragm  D. Condenser lens
18. Total Magnification is obtained by _____
    A. Magnifying power of the objective lens
    B. Magnifying power of eyepiece
    C. Magnifying power of condenser lens
    D. Magnifying power of both the objective lens and eyepiece
19. What is the minimum distance for the eye to focus any object?
    A. 11 cm  B. 25 cm  C. 32 cm  D. 42 cm
20. What is a cluster of polar flagella called?
    A. Petritrichous  B. Monotrichous  C. Amphitrichous  D. Lophotrichous
21. Which of these is a cocci occurring in single or pairs?
    A. Diplococci  B. Streptococci  C. Tetracocci  D. None of the above
22. This about cell wall of gram-positive bacteria is true
    A. cell wall comprises of many layers
    B. the cell wall is thicker than the associated gram-negative bacteria
    C. Cell wall comprises of teichoic acids
    D. All of the above
23. Which of the following cell organelles does not contain DNA?
    A. Nucleus  B. Lysosomes  C. Chloroplast  D. Mitochondria

24. Which of the following cell organelles is called the powerhouse of the cell?
A. Nucleus B. Lysosomes C. Chloroplast D. Mitochondria
25. _____is the study of the cell, its types, structure, functions and its organelles.
A. Biology B. Cell Biology C. Microbiology D. Biotechnology
26. Which of the following cell organelles is absent in prokaryotic cells?
A. Nucleus B. Lysosome C. Endoplasmic Reticulum D. All of the above
27. Which of the following cell organelles is present in plant cells and absent in animal cells?
A. Nucleus B. Vacuole C. Chloroplast D.Cytoplasm
28. Which of the following is a single membrane-bound organelle?
A. Vacuole B. Golgi Apparatus C. Endoplasmic Reticulum D. All of the above
29. Which of the following is not a double membrane-bound organelle?
A. Chloroplast B. Mitochondria C. Endoplasmic Reticulum D. All of the above
30. Which of the following statements is true about the Nucleus?
A. It is absent in prokaryotes B. It is called the brain of the cell
C. It contains DNA and other genetic materials. D. All of the above
31. Centrosome duplication takes place in this phase
A. S phase B. G1 phase C. G0 phase D. M phase
32. The division of cytoplasm is known as
A. Mitosis B. Synapsis C. Cytokinesis D. Karyokinesis
33. The best stage at which the total number of chromosomes can be counted
A. Telophase B. Metaphase C. Late anaphase D. Late prophase
34. The longest stage in the cell cycle is
A. Interphase B. Anaphase C. Metaphase D. None of the above
35. The spindle apparatus is formed during the _____ phase of mitosis.
A. Telophase B. Metaphase C. Prophase D. Anaphase
36. Chromosome structure can be observed best during ____
A. Anaphase B. Metaphase C. Prophase D. None of the above
37. The term chromosome was coined by _____
A. Sutton B. Boveri C. Waldeyer D.Hoffmeister
38. Chromosomes found in the salivary gland of Drosophila is_____
A. Polytene B. Lampbrush C. Supernumerary D. B-chromosomes
39. A chromosome with sub-terminal centromere is_____
A. Acrocentric B. Acentric C. Metacentric D. Telocentric
40. A chromosome with centromere near the middle is called_____
A. Metacentric B. Acrocentric C.Telocentric D. Submetacentric
41. Lampbrush chromosomes occur in_____
A. Oocytes B. Cancer cells C. Lymph glands D. Salivary glands
42. The genetically modified brinjal in India has been developed for
A. Drought resistance B. Enhancing mineral content C. Enhancing shelf life D. Insect resistance
43. Which applied area of biotech is related to blue color
A. Medical B. Agriculture C. Marine D. Sky science
44. Micro organism observed under
A. Incubator B. Microscope C. Telescope D. Autoclave
45. Plasma membrane composed by
A. Lipids B. Proteins C. Lipids+ Proteins D. Lipids + Proteins + Carbohydrates
46. Which one is not a domain of biotech
A. Agriculture B. Pharma C. Aeronautics D. Environment
47. Name of Biopharma which is not in Gujarat
A. Intas Biopharma B. Cadila C. Biocon D. Sunpharma
48. Extra circular DNA of bacteria
A. Vector B. Plasmid C. SS-RNA D. All
49. Which of the following identified in genetic testing
A. Gene B. Chromosome C. Proteins D. All
50. Which one is not Fermented Product?
A. Beer B. Dosa C. Lactic acid D. Vaccines