

Yashwantrao Chavan College of Science, Karad
B.Sc. – I
Paper III- Basics of Cell Biology and Microbiology
Question Bank

Q 1) Answer the following questions choosing the correct alternatives given below them

1) ----- cell organelles is absent in animal cell and present in plant cell.

- | | |
|--------------|-----------------|
| a) cell wall | b) cytoplasm |
| c) vacuoles | d) Mitochondria |

2) The cell theory is not applied for -----

- | | |
|-------------|----------|
| a)algae | b) Virus |
| c) Bacteria | d) Fungi |

3) The pH of lysosome is -----

- | | |
|------------|-----------------------------|
| a) Neutral | b) Acidic |
| c) Basic | d) depends on the cell type |

4) -----cell organelles is called powerhouse of cells.

- | | |
|----------------|-----------------|
| a) Nucleus | b)Lysosome |
| c) Chloroplast | d) mitochondria |

5) Cell wall is mainly composed of -----

- | | |
|--------------|------------|
| a) lipid | b) Starch |
| c) cellulose | d) protein |

6) Rabies vaccine was developed by -----

- | | |
|-------------|------------|
| a) E.Jenner | b)Hooke |
| c)Koch | d) Pasteur |

7) Unicellular fungi are called -----

- | | |
|------------|----------|
| a)Bacteria | b) Yeast |
| c) Molds | d) Algae |

8) Chromosome structure can be observed during -----

- | | |
|-------------|--------------|
| a) Anaphase | b) Metaphase |
| c) Prophase | d) telophase |

- 9) In 70S ribosomes 'S' stands for -----
- a) SI unit
 - b) Solubility factor
 - c) Svedberg unit
 - d) All of these
- 10) Rod shaped bacteria are known as -----
- a) Cocci
 - b) Comma forms
 - c) Bacilli
 - d) Pleomorphic forms
- 11) Mesosomes are the part of -----
- a) Plasma membrane
 - b) ER
 - c) Lysosomes
 - d) Golgi
- 12) Bacterial ribosomes are composed of -----
- a) Protein and DNA
 - b) Protein and mRNA
 - c) Protein and rRNA
 - d) Protein and tRNA
- 13) Bacterial cell wall mainly composed by -----
- a) Peptidoglycan
 - b) Lipids
 - c) Protein
 - d) Vitamin
- 14) -----used carbolic acid to kill germs and prevent infection
- a) Ignaz Semmelweis
 - b) Paul Ehrlich
 - c) Joseph Lister
 - d) Robert Feulgen
- 15) -----scientist discovered penicillin.
- a) Alexander Fleming
 - b) Selman Abraham Waksman
 - c) Edward Jenner
 - d) P.A. Levene
- 16) -----surgical practice was established by Lister
- a) Antisepsis
 - b) Chemotherapy
 - c) Variolation
 - d) Sterilization
- 17) Chromosome structure can be observed during -----
- a) Anaphase
 - b) Metaphase
 - c) Prophase
 - d) telophase
- 18) Polysomes are -----
- a) multiple units of ribosomes
 - b) attachment of many ribosomes to a common mRNA
 - c) attachment of many mRNA to a common ribosomes
 - d) lysosomal aggregations

19) The longest stage in cell cycle is-----

- a) Interphase 2
- b) Interphase 1
- c) Interkinases
- d) None of the above

20) -----stage implies the exist of cells from the cell cycle

- a) S
- b) G1
- c) G2
- d) G0

Q 2) Long Answer

- 1) Explain in detail contributions Robert Koch.
- 2) Explain phases of cell cycle and Mitosis.
- 3) Draw a well labeled diagram of typical bacterial cell and discuss the structure and functions of flagella and cell membrane
- 4) Explain types of cells.
- 5) Discuss in detail general principles of bacterial nomenclatures

Q 3) Short notes

- 1) Endoplasmic reticulum
- 2) Capsule and slime layer
- 3) Harmful activities of microorganisms
- 4) Antony Van Leeuwenhoek
- 5) Ribosomes
- 6) Structure and functions of Mitochondria.
- 7) Beneficial activities of microorganisms
- 8) Bacterial Ribosome
- 9) Functions of pili
- 10) Mitosis

