

## Question Bank-B.Sc.I

**Q.1 Choose correct alternative and rewrite the sentences.**

1) Meaning of term *Virion* is \_\_\_\_\_.

- a) Spice                      b) Salt                      c) **Poison**                      d) Sugar

2. Study of viruses is known as \_\_\_\_\_

- a) **Virology**                      b) Bacteriology                      c) Phycology                      d) Mycology

3) \_\_\_\_\_ isolated Tobacco Mosaic Virus (TMV) from tobacco plant

- a) Martinus Beijrinck                      b) **Adolf Mayer**                      c) Stanley                      d) Erwin Popper

4) ----- shows first time presence of virus in Tobacco plant.

- a) Adolf Mayer                      b) **Iwanowski**                      c) Martinus Beijrinck                      d) Walter Reed

5) Viruses are \_\_\_\_\_

- a) Autotrops                      b) Saprophytes                      c) **Obligate parasites**                      d) Facultative parasites

6) Capsule of virus is made up of \_\_\_\_\_

- a) Carbohydrates                      b) **Protein**                      c) Lipid                      d) Starch

7). Icosahedral symmetry have \_\_\_\_\_ equivalent triangular facets

- a) **20**                      b) 25                      c) 30                      d) 40

8) The term bacterium is given by \_\_\_\_\_

- a) **Ehrenberg**                      b) R. H. Whittekar                      c) Ronald Ross                      d) Louis Pasteur

9) The bacterial cell wall is made up of \_\_\_\_\_ Substance

- a) Polysaccharide                      b) Lipid                      c) **Peptidoglycan**                      d) Lipid

10) Flagella of bacteria helps in \_\_\_\_\_

- a) **Locomotion**      b) Reproduction      c) Fixation      d) Digestion

11) All the bacteria fix nitrogen except \_\_\_\_\_

- a) *Rhizobium*   b) *E. coli*      c) *Azotobacter*      d) *Cyanobacteria*

12) Bacterial cytoplasmic contains \_\_\_\_\_ type of ribosomes.

- a) 30 S      b) 40 S      c) **70 S**      d) 90 S

13) \_\_\_\_\_ bacteria are used to leach out minerals in Biomining.

- a) *Pseudomonas*      b) *Thiobacillus*      c) *Bacillus*      d) *Staphylococcus*

14) \_\_\_\_\_ is asexual reproduction type in bacteria

- a) Transduction      b) Transformation      c) Conjugation      d) **Binary fission**

15) According to G. M. Smith algae classified into \_\_\_\_\_ classes

- a) 5      b) 6      c) **7**      d) 8

16) Study of algae known as \_\_\_\_\_

- a) **Phycology**      b) Cytology      c) Physiology      d) Mycology

17) \_\_\_\_\_ used as biofertilizer

- a) *Ulothrix*      b) *Microcystis*      c) *Nostoc*      d) *Volvox*

18) *Chlorella* yields \_\_\_\_\_ antibiotics

- a) **Chlorellin**      b) Ampicillin      c) Penicillin      d) Carrageenin

19) \_\_\_\_\_ is unicellular green alga used in space flights as a source of food

a) *Volvox*      b) *Voucheria*      c) *Ulothrix*      d) ***Chlorella***

20) Term *Cyano* related to \_\_\_\_\_ pigments

a) Red      b) Yellow      c) Yellow green      d) **Blue green**

21) \_\_\_\_\_ fresh water alga

a) *Sargassum*      b) *Ulva*      c) ***Nostoc***      d) *Gracillaria*

22) \_\_\_\_\_ shows larvicidal properties.

a) *Ulva*      b) *Nostoc*      c) ***Chara***      d) *Fucus*

23) Biofertilizers are active strains of -----

a) **Microbes**      b) Virus      c) Bryophytes      d) Pteridophytes

24) *Triioderma* fungicide is useful against -----pathogenic fungi.

a) *Plyporus* spp.      b) ***Fusarium* spp.**      c) *Colletotrichum* spp.      d) *Mucor* spp.

25) BGA can fix atmospheric nitrogen in -----crop in India.

a) Wheat      b) **Rice**      c) Jowar      d) Maize

26) ----- species is symbiotic nitrogen fixer.

a) **Rhizobium**      b) *Alternaria*      c) TMV      d) *Bacillus*

27) Phosphate solubilizing bacteria hydrolyses ----- compound.

a) Nitrogenous      b) Carbohydrates      c) **Phosphate**      d) Lipids

29) *Azolla* removes ----- from polluted water.

a) Heavy pesticides      b) **Heavy metals**      c) Heavy phosphorus      d) Heavy carbon

30) -----is a member of Blue-green algae.

- a) *Chara*      b) *Oedogonium*      c) *Nostoc*      d) *Diatoms*

**Q. 2. Long questions (Each for 10 Marks)**

1. What are types of viruses? Explain DNA virus structure
2. Economic importance of viruses
3. Describe sexual reproduction in bacteria
4. Explain in brief cell structure of bacteria
5. Classification of Algae according to G. M. Smith
6. Describe in detail modes of sexual reproduction in *Spirogyra*
7. Give an account of economic importance of algae
8. Describe in detail procedure for preparation of biofertilizers.
9. Define biofertilizer? Explain the role of blue green algae as biofertilizers.
10. Describe in brief biofertilizers with respect to characters , association and uses of Rhizobium.

**Q. 3 Short Notes (Each for 5 Marks)**

1. General characters of viruses
2. Structure of viruses
3. RNA Virus / TMV
4. Symmetry of viruses
5. Bacteriophage
6. Bacterial discovery

7. Gram positive and gram negative bacteria
8. Binary fission in bacteria
9. Harmful activity of Bacteria
10. Gram positive and gram negative bacteria
11. General characters of algae
12. Heterocyst of *Nostoc*
13. Cell structure of *Spirogyra*
14. Importance of biofertilizers in agriculture
15. Practical application of biofertilizers
16. *Azolla* as a biofertilizers
17. *Trihoderma* as a biofertilizers