

1. Which component is absent in all viruses?

- A) DNA or RNA
- B) Ribosomes
- C) Protein coat
- D) Enzymes

Answer: B) Ribosomes

2. Which of the following viruses has the largest size?

- A) Rhino virus
- B) Polio virus
- C) Variola virus
- D) Adeno virus

Answer: C) Variola virus

3. What type of virus is HIV?

- A) DNA virus
- B) RNA virus
- C) Double-stranded DNA virus
- D) Bacteriophage

Answer: B) RNA virus

4. What does the term "virion" refer to?

- A) Incomplete virus particle
- B) Virus protein
- C) Fully formed infectious virus particle
- D) Viral enzyme

Answer: C) Fully formed infectious virus particle

5. Which virus is used in the production of the MMR vaccine?

- A) Rubella, Measles, Mumps viruses
- B) Smallpox, Rabies, Polio viruses
- C) Influenza, Yellow Fever, Rabies viruses
- D) Hepatitis A, B, C

Answer: A) Rubella, Measles, Mumps viruses

6. Which virus causes chickenpox?

- A) Herpes simplex
- B) Rubeola virus
- C) Varicella zoster
- D) Rubella virus

Answer: C) Varicella zoster

7. Edward Jenner developed the vaccine for which disease?

- A) Cholera
- B) Tuberculosis
- C) Smallpox
- D) Influenza

Answer: C) Smallpox

8. What kind of genome is found in a bacteriophage?

- A) RNA only
- B) DNA only
- C) DNA or RNA
- D) Both DNA and RNA

Answer: B) DNA only

9. Which virus is responsible for the "common cold"?

- A) Influenza virus

- B) Rhino virus
- C) Retrovirus
- D) Corona virus

Answer: B) Rhino virus

10. Which of the following viruses affects plants?

- A) Ebola virus
- B) Tobacco mosaic virus
- C) Polio virus
- D) Rabies virus

Answer: B) Tobacco mosaic virus

11. Which bacteria causes tuberculosis?

- A) *Corynebacterium diphtheriae*
- B) *Mycobacterium tuberculosis*
- C) *Bacillus anthracis*
- D) *Clostridium tetani*

Answer: B) *Mycobacterium tuberculosis*

12. Which of the following bacteria helps in nitrogen fixation in legumes?

- A) *Rhizobium*
- B) *E. coli*
- C) *Clostridium*
- D) *Vibrio*

Answer: A) *Rhizobium*

13. Which bacterium is used in curd formation?

- A) *Streptococcus*
- B) *Clostridium*
- C) *Lactobacillus*
- D) *Mycobacterium*

Answer: C) *Lactobacillus*

14. Which bacterial structure is responsible for antibiotic resistance?

- A) Cell wall
- B) Nucleoid
- C) Plasmid
- D) Ribosome

Answer: C) Plasmid

15. Which disease is caused by *Vibrio cholerae*?

- A) Typhoid
- B) Cholera
- C) Plague
- D) Tuberculosis

Answer: B) Cholera

16. Which vaccine prevents Diphtheria?

- A) OPV
- B) MMR
- C) DPT
- D) BCG

Answer: C) DPT

17. What shape is *Bacillus anthracis*?

- A) Spherical
- B) Rod-shaped

- C) Spiral
- D) Filamentous

Answer: B) Rod-shaped

18. Which bacterial disease primarily affects the lungs?

- A) Tetanus
- B) Tuberculosis
- C) Typhoid
- D) Anthrax

Answer: B) Tuberculosis

19. Penicillin was discovered from which organism?

- A) Bacterium
- B) Virus
- C) Protozoa
- D) Fungus

Answer: D) Fungus

20. Which part of bacterial cell performs respiration?

- A) Nucleus
- B) Cell membrane
- C) Ribosome
- D) Cell wall

Answer: B) Cell membrane

21. Which protozoan causes malaria?

- A) *Trypanosoma*
- B) *Giardia*
- C) *Entamoeba*

- D) *Plasmodium*

Answer: D) *Plasmodium*

22. Which stage of *Plasmodium* enters the human body?

- A) Gametocyte
- B) Trophozoite
- C) Sporozoite
- D) Merozoite

Answer: C) Sporozoite

23. Which disease is caused by *Entamoeba histolytica*?

- A) Sleeping sickness
- B) Amoebiasis
- C) Giardiasis
- D) Leishmaniasis

Answer: B) Amoebiasis

24. Which protozoa causes African Sleeping Sickness?

- A) *Trypanosoma*
- B) *Plasmodium*
- C) *Entamoeba*
- D) *Leishmania*

Answer: A) *Trypanosoma*

25. Which of the following is a colonial green alga?

- A) *Chlorella*
- B) *Spirogyra*
- C) *Volvox*
- D) *Ulothrix*

Answer: C) *Volvox*

26. Which alga is used in space food due to high protein content?

- A) *Chlorella*
- B) *Spirogyra*
- C) *Fucus*
- D) *Volvox*

Answer: A) *Chlorella*

27. Which organism is known as pond silk?

- A) *Spirogyra*
- B) *Chlorella*
- C) *Nostoc*
- D) *Volvox*

Answer: A) *Spirogyra*

28. Which fungus is used in alcohol production?

- A) *Penicillium*
- B) *Rhizopus*
- C) *Aspergillus*
- D) *Yeast (Saccharomyces)*

Answer: D) *Yeast (Saccharomyces)*

29. Which fungus produces penicillin?

- A) *Rhizopus*
- B) *Penicillium notatum*
- C) *Aspergillus*
- D) *Candida*

Answer: B) *Penicillium notatum*

30. Which protozoan causes Kala-Azar?

- A) *Trypanosoma*
- B) *Leishmania donovani*
- C) *Entamoeba*
- D) *Giardia*

Answer: B) *Leishmania donovani*

31. Which scientist first observed bacteria under a microscope?

- A) Louis Pasteur
- B) Robert Koch
- C) Edward Jenner
- D) Antonie van Leeuwenhoek

Answer: D) Antonie van Leeuwenhoek

32. Which bacteria convert milk into curd?

- A) *Rhizobium*
- B) *Lactobacillus*
- C) *Vibrio*
- D) *Mycobacterium*

Answer: B) *Lactobacillus*

33. Which vaccine protects against tuberculosis?

- A) OPV
- B) DPT
- C) BCG
- D) Rabies

Answer: C) BCG

34. MMR vaccine protects against all except:

- A) Measles

- B) Mumps
- C) Rubella
- D) Influenza

Answer: D) Influenza

35. The term "satellite virus" refers to:

- A) Helpful virus
- B) Virus needing another virus to infect
- C) Artificial virus
- D) Plant virus

Answer: B) Virus needing another virus to infect

36. Bacteriophage infects which organism?

- A) Algae
- B) Protozoa
- C) Bacteria
- D) Humans

Answer: C) Bacteria

37. Which microorganism can photosynthesize?

- A) Virus
- B) Protozoa
- C) Cyanobacteria
- D) Fungi

Answer: C) Cyanobacteria

38. Which microorganism helps fix nitrogen without a plant host?

- A) *Rhizobium*
- B) *Azotobacter*

- C) *E. coli*
- D) *Clostridium tetani*

Answer: B) Azotobacter

39. The process of using bacteria to clean oil spills is called:

- A) Pasteurization
- B) Bioleaching
- C) Bioremediation
- D) Bioluminescence

Answer: C) Bioremediation

40. Which disease is not caused by bacteria?

- A) Tetanus
- B) Typhoid
- C) Rabies
- D) Tuberculosis

Answer: C) Rabies

41. Which of the following is both autotrophic and prokaryotic?

- A) *Volvox*
- B) *Chlorella*
- C) Cyanobacteria
- D) *Euglena*

Answer: C) Cyanobacteria

42. Which of these vaccines is a live attenuated vaccine?

- A) Salk polio vaccine
- B) Rabies vaccine
- C) BCG

D) DPT

Answer: C) BCG

43. Which microorganism causes leprosy?

- A) *Mycobacterium leprae*
- B) *Mycobacterium tuberculosis*
- C) *Clostridium tetani*
- D) *Salmonella typhi*

Answer: A) *Mycobacterium leprae*

44. DNA is the genetic material in all except:

- A) Bacteria
- B) Fungi
- C) Most Viruses
- D) Retroviruses

Answer: D) Retroviruses

45. Which vaccine was developed first historically?

- A) Rabies
- B) Smallpox
- C) BCG
- D) Polio

Answer: B) Smallpox

46. Which is used as a model in genetic engineering?

- A) *E. coli*
- B) *Spirogyra*
- C) *Clostridium*
- D) *Volvox*

Answer: A) *E. coli*

47. Which of the following microorganisms are acellular?

- A) Algae
- B) Fungi
- C) Protozoa
- D) Virus

Answer: D) Virus

48. Which part of the virus determines host specificity?

- A) DNA
- B) RNA
- C) Capsid proteins
- D) Lipid envelope

Answer: C) Capsid proteins

49. Which disease is not caused by protozoa?

- A) Malaria
- B) Amoebiasis
- C) Tuberculosis
- D) Sleeping sickness

Answer: C) Tuberculosis

50. The nitrogen-fixing bacteria in legume nodules is:

- A) *Nitrosomonas*
- B) *Nitrobacter*
- C) *Rhizobium*
- D) *Clostridium*

Answer: C) *Rhizobium*