

LEC 1 Q- MICROBIOLOGY

1. **What is the primary focus of medical microbiology?**
 - A) Study of plant biology
 - B) Study of microorganisms associated with human disease
 - C) Study of human anatomy
 - D) Study of environmental science**Answer: B**
2. **Which of the following is a beneficial application of microorganisms in the food industry?**
 - A) Causes food spoilage
 - B) Used in fermentation for yogurt
 - C) Creates harmful pathogens
 - D) Increases air pollution**Answer: B**
3. **Which route is NOT a portal of entry for pathogenic microorganisms?**
 - A) Inhalation
 - B) Ingestion
 - C) Conjunctiva
 - D) Skin contact with healthy skin**Answer: D**
4. **Who is known as the "Father of microbiology"?**
 - A) Louis Pasteur
 - B) Edward Jenner
 - C) Antony van Leeuwenhoek
 - D) Robert Koch**Answer: C**
5. **What significant contribution did Edward Jenner make to medicine?**
 - A) Discovered penicillin
 - B) Developed the first vaccine for smallpox
 - C) Identified cholera's waterborne source
 - D) Linked syphilis to a single pathogen**Answer: B**
6. **Which scientist established Koch's postulates?**
 - A) Ignaz Semmelweis
 - B) Louis Pasteur
 - C) Robert Koch
 - D) Alexander Fleming**Answer: C**
7. **Which type of microorganism is unicellular and can cause infections?**
 - A) Fungi
 - B) Yeasts
 - C) Helminths
 - D) Molds**Answer: B**
8. **What is a key characteristic of prokaryotic microorganisms?**
 - A) They have a nucleus
 - B) They undergo mitosis
 - C) They have a circular chromosome

D) They are always multicellular

Answer: C

9. **Which of the following is NOT a class of pathogenic organisms?**

A) Viruses

B) Bacteria

C) Algae

D) Parasites

Answer: C

10. **What type of agent is a virus considered to be?**

A) Eukaryotic

B) Prokaryotic

C) Acellular

D) Multicellular

Answer: C

11. **Which of the following statements about prions is correct?**

A) They are composed of nucleic acids.

B) They cause diseases only in plants.

C) They consist of misfolded proteins.

D) They can replicate independently of host cells.

Answer: C

12. **In the context of microbial classification, which of the following is NOT true?**

A) Eukaryotic cells have multiple linear chromosomes.

B) Prokaryotic cells lack membrane-bound organelles.

C) Mycoplasma are prokaryotes that possess a cell wall.

D) Eukaryotic ribosomes are larger than prokaryotic ribosomes.

Answer: C

13. **Which historical figure is credited with linking specific pathogens to specific diseases through experimental evidence?**

A) John Snow

B) Louis Pasteur

C) Robert Koch

D) Edward Jenner

Answer: C

14. **The Polymerase Chain Reaction (PCR) technique is primarily used for which of the following purposes?**

A) To create vaccines

B) To amplify DNA sequences

C) To treat infections

D) To identify bacterial species

Answer: B

15. **Which pathogen is primarily responsible for causing intracellular infections?**

A) Bacteria

B) Fungi

C) Protozoa

D) Helminths

Answer: C

16. **Antony van Leeuwenhoek's contribution to microbiology was primarily through his development of:**

- A) The first vaccine
- B) A technique to culture bacteria
- C) The microscope for observing live microorganisms
- D) Methods for sterilization

Answer: C

17. **Which of the following is a true statement regarding fermentation?**

- A) It exclusively involves bacterial species.
- B) It requires oxygen.
- C) It can produce alcohol and organic acids.
- D) It is a harmful process in all contexts.

Answer: C

18. **What is the main distinguishing factor between yeasts and molds?**

- A) Yeasts are multicellular, while molds are unicellular.
- B) Molds have a filamentous structure, while yeasts are unicellular.
- C) Yeasts cannot reproduce sexually, while molds can.
- D) Molds are always beneficial, while yeasts are harmful.

Answer: B

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