

Lec 1 Quiz:

1. Which scientist's work directly disproved the theory of spontaneous generation using meat and flies?

- a) Robert Koch
- b) Louis Pasteur
- c) Antonie van Leeuwenhoek
- d) Francesco Redi
- e) Dmitri Ivanovsky



2. Which of the following is NOT a characteristic of bacteria?

- a) They are prokaryotic
- b) They reproduce primarily through binary fission
- c) They possess 80S ribosomes
- d) They can grow on artificial laboratory media
- e) They typically have a simple internal structure



3. Who is credited with developing the first live attenuated vaccines?

- a) Robert Koch
- b) Ignaz Semmelweis
- c) Alexander Fleming
- d) Louis Pasteur
- e) Edward Jenner

4. The field of microbiology advanced dramatically during the Golden Period, which began with the work of:

- a) Antonie van Leeuwenhoek**
- b) Louis Pasteur and Robert Koch**
- c) Alexander Fleming and Ignaz Semmelweis**
- d) Dmitri Ivanovsky**
- e) Francesco Redi**

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5. Which of the following is the MOST likely reason that viruses cannot grow on artificial media?

- a) They require living cells for replication**
- b) They lack both RNA and DNA**
- c) They are too small to be observed**
- d) They rely on binary fission for reproduction**
- e) They contain no genetic material**

6. Which scientist introduced solid media and bacterial staining techniques, crucial for the development of pure cultures?

- a) Louis Pasteur**
- b) Alexander Fleming**
- c) Robert Koch**
- d) Ignaz Semmelweis**
- e) Antonie van Leeuwenhoek**

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7. Which branch of microbiology focuses on the study of fungi, including yeasts and molds?

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



8. What key contribution to microbiology was made by Dmitri Ivanovsky in 1892?

- a) Discovery of antibiotics**
- b) Development of the first bacterial vaccine**
- c) The first demonstration of a filterable virus**
- d) Introduction of solid media for bacterial culture**
- e) Proposal of the cell theory**

9. Which of the following features differentiates molds from yeasts?

- a) Both are unicellular organisms**
- b) Molds reproduce only asexually, while yeasts reproduce sexually**
- c) Molds are multicellular, while yeasts are unicellular**
- d) Molds can photosynthesize, while yeasts cannot**
- e) Molds have 70S ribosomes, while yeasts have 80S ribosomes**

10. A patient is diagnosed with anthrax after exposure to contaminated livestock. Which scientist first discovered the causative agent of this disease?

- a) Ignaz Semmelweis**
- b) Robert Koch**
- c) Antonie van Leeuwenhoek**
- d) Louis Pasteur**
- e) Alexander Fleming**



11. Which of the following principles is NOT part of Koch's postulates?

- a) The microorganism must be found in all cases of the disease**
- b) The microorganism must be grown in pure culture from a diseased organism**
- c) The microorganism must cause disease when introduced into a healthy organism**
- d) The microorganism must be resistant to all known antibiotics**
- e) The microorganism must be re-isolated from the newly infected organism**

12. The invention of the compound microscope by Robert Hooke led to the development of what major biological theory?

- a) Germ theory**
- b) Spontaneous generation**
- c) Endosymbiotic theory**
- d) Cell theory**
- e) Theory of evolution**

13. Which of the following statements about viruses is FALSE?

- a) They can only be visualized using electron microscopy**
- b) They require a host cell for replication**
- c) They contain both RNA and DNA simultaneously**
- d) They are obligate intracellular parasites**
- e) They cannot grow on artificial media**

Answers:

- 1. d) Francesco Redi**
- 2. c) They possess 80S ribosomes**
- 3. d) Louis Pasteur**
- 4. b) Louis Pasteur and Robert Koch**
- 5. a) They require living cells for replication**
- 6. c) Robert Koch**
- 7. b) Mycology**
- 8. c) The first demonstration of a filterable virus**
- 9. c) Molds are multicellular, while yeasts are unicellular**
- 10. b) Robert Koch**
- 11. d) The microorganism must be resistant to all known antibiotics**
- 12. d) Cell theory**
- 13. c) They contain both RNA and DNA simultaneously**