

MCQs

- 1) **Which of the following statements is TRUE regarding spores?**
 - A. They are for reproduction.
 - B. They allow a cell to survive adverse environmental changes.
 - C. They are easily stained in a Gram stain.
 - D. A cell produces one endospore and keeps growing.

- 2) **B-lactam antibiotics cause bacterial cell death as a result of:**
 - A. Osmotic lysis.
 - B. Inhibition of molecular transport.
 - C. Decreased synthesis of peptidoglycan.
 - D. Cell shrinkage.

- 3) **The term aerotolerant anaerobe refers to an organism that:**
 - A. Does not use oxygen but tolerates it.
 - B. Is killed by oxygen.
 - C. Uses oxygen or grows without oxygen.
 - D. Requires less oxygen than is present in air.

- 4) **Most bacteria reproduce by**
 - A. hyphae.
 - B. Budding.
 - C. Mitosis.
 - D. Binary fission.

- 5) **Which of the following pairs is mismatched?**
 - A. Thermophile — growth at 15°C
 - B. Mesophile — growth at 37°C
 - C. Psychrophile — growth at 8°C
 - D. Capnophilic- not required CO₂

- 6) **Which of the following is a character of DNA vectors that used in gene cloning procedures?**
 - A. Self-replication
 - B. Large size
 - C. Has a more than one cleavage site
 - D. Can not replicate in several species

- 7) **Which of the following statements about exotoxins is FALSE?**
 - A. They are produced by gram-positive bacteria
 - B. They are composed of proteins.
 - C. They are resistant to heat.
 - D. They have specific methods of action.

- 8) **One of the following is a property of an ideal antimicrobial agent**
 - A. Selective toxicity
 - B. Bacteriostatic
 - C. Broad spectrum
 - D. high dose

9) Which of the following statements about drug resistance is FALSE?

- A. It may be carried on a plasmid
- B. It may be transferred from one bacterium to another during conjugation.
- C. It may be due to enzymes that degrade some antibiotics.
- D. It is found only in gram-negative bacteria.

10) Which of the following constitute an advantage of using two antibiotics together?

- A. It can prevent drug resistance.
- B. It increases the toxicity of individual drugs.
- C. Two are always as effective as one.
- D. It can be used in empiric treatment

11) Microorganisms are classified into aerobes and anaerobes on the basis of which of the following?

- A. Nature of nitrogen source
- B. Nature of oxygen source
- C. Nature of carbon source
- D. Nature of electron donor

12) Regarding innate immunity is true:

- A. Present since birth.
- B. Important at the end of infection.
- C. Associated with immunological memory
- D. Not present in all individuals

13) Which of the following is found only in Gram positive bacteria

- A. Capsule
- B. Lipopolysaccharide
- C. Outer membrane
- D. Peptidoglycan
- E. Teichoic acid

14) Bacteria that die or can't grow in presence of oxygen are.....

- A. Aerobes
- B. Facultative anaerobes
- C. Obligate anaerobes
- D. L-form

15) Which of the following cannot be used for detection of smallest viruses or its components?

- A. Light microscopy
- B. Fluorescent microscopy
- C. Immunoelectron microscopy
- D. Phase contrast microscopy

16) Which of the following is not a character of prokaryotic cell?

- A. cell wall
- B. nuclear membrane
- C. ribosome
- D. cytoplasmic membrane

17) Mycoplasmas are intrinsically resistant to penicillin because they lack:

- A) cytoplasmic membrane
- B) cell wall
- C) plasmids
- D) ribosomes

18) L-forms of bacteria:

- A. May develop due to inhibition of cytoplasmic membrane formation
- B. Are very sensitive to antibiotic therapy
- C. Develop only in hypertonic medium
- D. Can produce relapses of overt infections
- E. None of the above

19) Which of the following contain RNA and DNA?

- A. Viruses
- B. Fungi
- C. Prions
- D. Bacteria
- E. viroid

20) Which of the following contain somatic O antigen.

- A- Capsule
- B- Lipopolysaccharide
- C- Outer membrane
- D- Peptidoglycan
- E- Teichoic acid

21) The endotoxin is a component of which of the following

- A. Gram+ve bacteria
- B. Gram -ve bacteria
- C. Viruses
- D. protozoa

22) All the following statements are true regarding cell wall functions except:

- A) it is responsible for motility
- B) it plays a role in cell division
- C) it is responsible for the staining property of bacteria
- D) it supports cytoplasmic membrane
- E) It gives bacteria its characteristic shape

23) The type of bacteria that synthesize organic compounds from inorganic compounds are called:

- A-Heterotrophic

- B-Obligatory anaerobic
- C-Aerobic
- D-Facultative anaerobic
- E-Autotrophic

24) What type of bacteria lack superoxide dismutase.

- A. Heterotrophic bacteria
- B. Obligate anaerobic bacteria
- C. Aerobic bacteria
- D. Facultative bacteria
- E. Autotrophic bacteria

25) All the following are characters of viruses except:

- A. Obligate intracellular
- B. Need ultracentrifugation for sedimentation
- C. Contain DNA & RNA
- D. treated by antiviral drugs