

Chapters 12, 13, 14, 15

20) Which of the following statements about fungi is false?

- A) All fungi are unicellular. B) All fungi have eukaryotic cells.
C) Fungi are heterotrophic. D) Most fungi are aerobic. E) Few fungi are pathogenic to humans.

21) Which of the following statements is false?

- A) Fungi produce sexual spores. B) Fungi produce asexual spores.
C) Fungal spores are used in identification of fungi. D) Fungal spores are for reproduction.
E) Fungal spores are resting spores to protect the fungus from adverse environmental conditions.

22) In which of the following ways do viruses differ from bacteria?

- A) Viruses are filterable. B) Viruses are obligate intracellular parasites.
C) Viruses don't have any nucleic acid. D) Viruses are not composed of cells.
E) Viruses don't reproduce.

23) Which of the following is *NOT* a method of culturing viruses?

- A) In laboratory animals B) In culture media C) In embryonated eggs D) In cell culture
E) None of the above

24) The definition of *lysogeny* is

- A) Phage DNA is incorporated into host cell DNA. B) Lysis of the host cell due to a phage.
C) The period during replication when virions are not present.
D) When the burst time takes an unusually long time. E) Attachment of a phage to a cell.

25) A viroid is

- A) A complete, infectious virus particle. B) A nonenveloped, infectious piece of RNA.
C) A capsid without a nucleic acid. D) A provirus. E) An infectious protein.

26) A clear area against a confluent "lawn" of bacteria is called a

- A) Phage. B) Pock. C) Cell lysis. D) Plaque. E) Rash.

27) A persistent infection is an infection in which

- A) The virus remains in equilibrium with the host without causing a disease.
B) Viral replication is unusually slow. C) The disease process occurs gradually over a long period.
D) Host cells are gradually lysed. E) Host cells are transformed.

28) An infectious protein is a

- A) Bacteriophage. B) Prion. C) Retrovirus. D) Viroid. E) Papovavirus.

29) An envelope is acquired during which of the following steps?

- A) Penetration B) Attachment C) Uncoating D) Biosynthesis E) Release

30) An example of a latent viral infection is

- A) Subacute sclerosing panencephalitis. B) Cold sores. C) Influenza. D) Smallpox. E) Mumps.

31) Put the following in the correct order for DNA-virus replication:

1-Maturation; 2-DNA synthesis; 3-Transcription; 4-Translation.

- A) 1, 2, 3, 4 B) 2, 3, 4, 1 C) 3, 4, 1, 2 D) 4, 1, 2, 3 E) 4, 3, 2, 1

- 32) A viral species is a group of viruses that
- A) Have the same morphology and nucleic acid.
 - B) Have the same genetic information and ecological niche.
 - C) Infect the same cells and cause the same disease.
 - D) Can't be defined.

- 33) Which of the following statements about viruses is false?
- A) Viruses contain DNA or RNA but never both.
 - B) Viruses contain a protein coat.
 - C) Viruses use the anabolic machinery of the cell.
 - D) Viruses use their own catabolic enzymes.
 - E) Viruses have genes.

Compare and contrast lytic bacterial virus multiplication with animal virus multiplication.

What kinds of things can be infectious?

What is special about HPV that makes it hard for cells to eliminate it?

For Animal Viruses, focus on the underlined viruses. Know their name, their family, and what disease they cause.

- 1) A commensal bacterium
- A) Does not receive any benefit from its host.
 - B) Is beneficial to its host.
 - C) May be an opportunistic pathogen.
 - D) Does not infect its host.
 - E) B and D only.

- 2) A nosocomial infection is
- A) Always present but is inapparent at the time of hospitalization.
 - B) Acquired during the course of hospitalization.
 - C) Always caused by medical personnel.
 - D) Only a result of surgery.
 - E) Always caused by pathogenic bacteria.

- 3) The major significance of Koch's work was that
- A) Microorganisms are present in a diseased animal.
 - B) Diseases can be transmitted from one animal to another.
 - C) Microorganisms can be cultured.
 - D) Microorganisms cause disease.
 - E) Microorganisms are the result of disease.

- 4) Koch's postulates don't apply to all diseases because
- A) Some microorganisms can't be cultured in laboratory media.
 - B) Some microorganisms don't cause the same disease in laboratory animals.
 - C) Some microorganisms cause different symptoms under different conditions.
 - D) Some microorganisms can't be observed.
 - E) Not all diseases are caused by microorganisms.

- 5) Which of the following diseases is *NOT* spread by droplet infection?
 A) Botulism B) Tuberculosis C) Measles D) Common cold E) Diphtheria
- 6) Mechanical transmission differs from biological transmission in that mechanical transmission
 A) Doesn't require an arthropod. B) Involves fomites. C) Doesn't involve specific diseases.
 D) Requires direct contact. E) Doesn't work with noncommunicable diseases.
- 7) Which of the following definitions is incorrect?
 A) Endemic – a disease that is constantly present in a population
 B) Epidemic – fraction of the population having a disease at a specified time
 C) Pandemic – a disease that affects a large number of people in the world in a short time
 D) Sporadic – a disease that affects a population occasionally
 E) Incidence – number of new cases of a disease
- 8) Koch observed *Bacillus anthracis* multiplying in the blood of cattle. What is this condition called?
 A) Bacteremia B) Focal infection C) Local infection D) Septicemia E) Systemic infection
- 9) Transient microbiota differ from normal microbiota because transient microbiota
 A) Cause diseases. B) Are found in a certain location on the host.
 C) Are acquired by direct contact. D) Are present for a relatively short time. E) Never cause disease.
- 10) Which of the following statements about nosocomial infections is false?
 A) They occur in compromised patients. B) They are caused by opportunists.
 C) They are caused by drug-resistant bacteria. D) They are caused by normal microbiota.
 E) The patient was infected before hospitalization.
- 11) Which of the following is *NOT* a communicable disease?
 A) Malaria B) AIDS C) Tuberculosis D) Tetanus E) Typhoid fever
- 12) Which of the following is a fomite?
 A) Water B) Droplets from a sneeze C) Pus D) Insects E) A hypodermic needle
- 13) Which of the following definitions is incorrect?
 A) Acute – a short-lasting primary infection
 B) Inapparent – infection characteristic of a carrier state
 C) Chronic – a disease that develops slowly and lasts for months
 D) Primary infection – an initial illness
 E) Secondary infection – a long-lasting illness
- 14) Influenza transmitted by an unprotected sneeze is an example of
 A) Direct contact. B) Droplet transmission. C) Fomite. D) Vector. E) Vehicle transmission.
- 15) A sexually transmitted disease is an example of
 A) Direct contact. B) Droplet transmission. C) Fomite. D) Vector. E) Vehicle transmission.
- 16) Gastroenteritis acquired from roast beef is an example of
 A) Direct contact. B) Droplet transmission. C) Fomite. D) Vector. E) Vehicle transmission.

- 17) A needlestick is an example of
 A) Direct contact. B) Droplet transmission. C) Fomite. D) Vector. E) Vehicle transmission.
- 18) *Pseudomonas* bacteria colonized the bile duct of a patient following his liver transplant surgery. This is an example of a
 A) Communicable disease. B) Latent infection. C) Nosocomial infection.
 D) Sporadic disease. E) None of the above.
- 19) Which of the following statements is false?
 A) Leukocidins destroy neutrophils. B) Hemolysins lyse red blood cells.
 C) Hyaluronidase breaks down substances between cells.
 D) Kinase destroys fibrin clots. E) Coagulase destroys blood clots.
- 20) Endotoxins are
 A) Associated with gram-positive bacteria. B) Specific in their method of action.
 C) Part of the gram-negative cell wall. D) Excreted from the cell. E) A-B toxins.
- 21) Cytopathic effects are changes in host cells due to
 A) Viral infections. B) Protozoan infections. C) Fungal infections.
 D) Bacterial infections. E) Helminthic infections.
- 22) Siderophores are bacterial proteins that compete with animal
 A) Antibodies. B) Red blood cells. C) Transferrin. D) White blood cells. E) Receptors.
- 23) Which of the following is *NOT* considered entry via the parenteral route?
 A) Injection B) Bite C) Surgery D) Hair follicle E) Skin cut
- 24) Which of the following does *NOT* contribute to the virulence of a pathogen?
 A) Numbers of microorganisms that gain access to a host B) Cell wall
 C) Toxins D) Enzymes E) All of the above contribute to a pathogen's virulence.
- 25) Lysogenic bacteriophages contribute to bacterial virulence because bacteriophages
 A) Give new gene sequences to the host bacteria. B) Produce toxins.
 C) Carry plasmids. D) Kill the bacteria causing release of endotoxins. E) Kill human cells.
- 26) Koch observed *Bacillus anthracis* multiplying in the blood of cattle. What is this condition called?
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- 28) Incidence takes into account:
 A) all people with the disease B) only new cases of the disease
 C) only old cases of the disease D) the burden on society caused by that disease