

- which of the following is associated with a parastitic infection ?
A- increased IgE
B- Eosinophilia
C-Basophilia
D- all of the above
E- both (A) and (B)

كل التوفيق _ لجان الدفاعات كلية الطب 2010

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Microbiology first exam

15-10-2011

X1) Which of the following describe the contribution of Louis Pasteur:

-The first man to make and use Rabies vaccine.

X2) Who is the scientist that discover the theory of biogenesis:

-Rudolf Virchow

✓3) A term that describe bacteria that is nonpathogenic and lives normally in our body:

- Commensal bacteria

X4) Which of the following measurement used to measure different types of ribosomes:

-Svedberg unit

X5) What is the resolving power of SEM:

-0.02 micrometer (20nm)

X6) What is the maximum magnification of the dark field microscope:

-1000 times

X7) Which of the following microscopes uses a laser beam to view microorganism:

-Atomic Force microscopes

X8) The exception of Koch's Postulates except:

-Mycobacterium Tuberculosis

X9) Studding of *Cryptosporidium parvum* that cause severe watery diarrhea belong to the science of:

-protozoology

10) Which of the following staining technique using acetone or ethanol or both as a decolorizer:

-Gram stain

* 11) Which of the following terms we use to describe flagella that present in both ends of the bacterium:

-Amphitrichous

* 12) All of the following structures are present in all prokaryotic cells except:

-Lysosomes

✓ 13) Creutzfeldt-Jakob(C-J) describe a disease by which of the following types of microorganisms:

-Prions

✓ 14) Which of the following describes the closest relationship between bacteria:

-Subspecies

Family - Genus - Species - Strains
Subspecies

* ✓ 15) All of the following are present in eukaryotic cells except:

-Lipopolysaccharide

* 16) Which of the following structure is present only in the family of HIV viruses:

-It has as enzyme called reverse transcriptase

* 17) Which of the following enzymes play a major role in the function of Peroxisomes:

-Catalase enzyme

X 18) Which of the following staining methods used methylene blue or malachite green stains as a counterstain:

-Acid Fast staining

* 19) Capnophilic bacteria is:

-Bacteria that grows only in the presence of carbon dioxide

20) Which of the following groups of microorganisms are considered obligate intracellular bacteria:

-Rickettsias, Ehrlichia

(P) X 21) Which of the following classes, the malarial parasites belongs to:

-Sporozoa

22) All of the following are true of enveloped animal viruses except:

-Could be neutralized inside our body by binding of antibodies to their attachment's proteins located on the capsid

X 23) Conidia is a structural compound of which of the following microorganisms:

-Fungi

X 24) Which of the following organisms can have a structure called stigma:

-Prototheca (Algae)

25) Which of the following is not true of viruses:

-Some can have 16s ribosome packed in the core

X 26) How many times SEM can magnify more than bright field compound microscope:

-10 times

X ✓ 27) Which of the following biomolecular structure is unique for bacteria:

-Peptidoglycan

✓ 28) All of the following are true of temperate bacteriophages except:

-They cause rapid lysis of bacterial cell

29) Which of the following terms is used to indicate the excite of a virus from a cell during multiplication:

-Budding

X 30) For which of the following organisms we use the term trophozoite as the active multiplying stage:

- Protozoa

X 31) Which of the following viruses are considered oncoviruses:

- Retroviruses (RNA viruses has the ability to change their RNA to DNA, so it has the ability to integrate into the chromosomes and then activate the protooncogenes)

X 32) All of the following are associated with protozoa except:

- Candidiasis

X 33) Which of the following organisms have a spiral shape:

- Rickettsia (as treponema palladium that cause syphilis disease)

X 34) All of the following bacterial structure are considered as pathogenic deterrent except:

- Cytoplasmic membrane

✓ 35) All of the following are true of archae bacteria except:

- Pathogenic

36) All of the following have 18s ribosomal RNA except:

- Mycoplasma (prokaryotic bacteria)

✓ 37) All of the following terms can be used to describe yeasts as Candida albicans except:

- Dimorphic

X 38) Organisms that has a structure called pellicle, belong to which of the following:

- Algae

X 39) All of the following are considered deep-seated (systemic) mycosis except:

- Dermatophytes

←
m NOT Dimorphic

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✓ 40) Which of the following you expect to see on a sample grown at room temperature:

- Mold

✓ 41) What is the main function of a bacterial capsule:

-Interference with phagocytosis

✓ 42) All of the following are true of plasmids except:

-It is considered as part of the bacterial chromosome

✓ 43) Which of the following viruses has the largest size:

-~~P~~oxviruses

✓ 44) Which of the following viruses infects ameba:

-Mimiviruses

✓ 45) Which of the following bacterial structure is responsible of transferring of the genetic material to another bacteria:

-Pilli (sex pilli)

✓ 46) What is the amount of the large subunit of the ribosome of eukaryotic cells:

- 60S

bacteria 50

✿ ✓ 47) What is the colorless space, which surround the cell wall when using eosin:

- Capsule

✗ 48) The type of microscope that use high-pressure mercury lamp as light source is:

- Fluorescent microscope

- ✓ 1. A plasmid may
- a) be integrated into the chromosome
 - b) replicate independent of the chromosome
 - c) be transferred cell-to-cell during conjugation
 - d) be involved in any of the above
- ✓ 2. The term point mutation refers to mutations involving
- a) a base-pair insertion (microinsertion) *همه چیز*
 - b) a base-pair deletion (microdeletion) *همه چیز*
 - ✓ → c) a base-pair substitution
 - d) any of the above
- ✓ 3. Bacterial spores are a problem in sterilizing instruments and equipment because
- A) They are persistent to antibiotics ✓
 - B) Most pathogenic bacteria are spore-formers
 - C) They are resistant to physical and chemical agents ✓
 - D) They are easy to kill, but are usually protected by organic matter
 - E) All of the above
- ✓ 4. Disinfecting agents differ from antiseptic agents in that disinfecting agents are
- A) Bactericidal
 - B) Bacteriostatic
 - C) Used on inanimate objects
 - D) Able to denature cellular proteins
- ✓ * 5. The use of a physical or chemical process to destroy vegetative pathogens is:
- A) disinfection
 - B) sterilization
 - C) antisepsis
 - D) sanitization
 - E) degermation
- ✓ 6. Electrons are ejected from atoms in cells when organisms are exposed to:

- A) dessication
- B) ultraviolet light
- C) ethyl alcohol
- D) hydrogen peroxide
- E) gamma rays and X-rays

✓ 7. Which of the following is not used as an antiseptic?

- A) iodophor
- B) chlorhexidine ✓
- C) 3% hydrogen peroxide ✓
- D) Merthiolate
- E) Aqueous gluteraldehyde ^x _{Toxic.}

✓ 8. Ethylene oxide is:

- A) sporicidal ^x _{of disinfectant}
- B) only effective with high heat ^x _{high heat}
- C) the active agent in household bleach ^x _{bleach}
- D) used as an antiseptic against anaerobes
- E) a halogen

✓ 9. ^{S₂} _____ heat is more rapidly effective and efficient compared to _____ heat.

- A) High, dry
- B) High, moist
- C) Dry, moist
- D) Moist, dry
- E) Moist, high

✓ 10. Sulfonamides:

- A) interfere with elongation of peptidoglycan
- B) are metabolic analogs of PABA and block folic acid synthesis ✓
- C) attach to the 30S ribosomal subunit and disrupt protein synthesis
- D) damage cell membranes
- E) block peptidases that cross-link glycan molecules

✓ 11. Aminoglycosides:

- A) interfere with elongation of peptidoglycan
- B) are metabolic analogs of PABA and block folic acid synthesis ^x
- C) attach to the 30S ribosomal subunit and disrupt protein synthesis ✓
- D) damage cell membranes

E) block peptidases that cross-link glycan molecules

✓ 12. Chlorine compounds remain stable and effective in the presence of excess organic matter.

- A) true
- B) false

✓ 13. Chlorine and ethylene oxide are sterilizing gases.

Disinfection

Sterilization

- A) true
- ⓑ) false

14. Ciprofloxacin is used to treat viral respiratory infections.

- A) true
- B) false

✓ 15. Resistance factor plasmids are transferred to other bacterial cells during transformation, transduction, and conjugation.

- Ⓐ) true
- B) false

✓ 16) Inhibits cell wall synthesis by blocking a lipid carrier.

- a. Cephalosporin PBP
- b. Phosphonomycin
- ⓐ) bacitracin (*Polynes*)
- d. cycloserine

✓ 17) An effective method of sterilizing heat sensitive liquids is

- a. UV radiation
- b. Exposure to ozone → *water*
- c. beta propiolactone
- d. filtration → Disinfection

✓ 18) What does a bactericidal agent do?

- a. kills spores
- b. inhibits bacteria
- c. not effective against viruses
- d. destroys bacteria

✓ 19) The presence of a few bacteria in the blood is termed

- Ⓐ) septicemia