

Section A. Multiple choice questions.

1. In the definition of "Evidence based Medicine" which term means "Careful and honest about doing one's work properly"?
 - a) Judicious
 - b) Explicit
 - c) Conscientious
 - d) All of the above
 - e) None of the above
2. Which diagnostic question assesses the risk of the patient's condition?
 - a) How is the patient doing?
 - b) What is the patient's prognosis?
 - c) What is the diagnosis?
 - d) Any of the above
 - e) None of the above
3. The greatest overlap between the different symbiotic relationships occurs between:
 - a) Phoresis and Parasitism
 - b) Phoresis and Mutualism
 - c) Commensalism and Mutualism
 - d) Parasitism and Mutualism
 - e) Any of the above
4. To which Kingdom do protozoan parasites belong?
 - a) Animalia
 - b) Protista
 - c) Fungus
 - d) Monera
 - e) None of the above
5. What is the total volume of blood in a woman weighing 80 Kg?
 - a) 5.2L
 - b) 6.0L
 - c) 4.8L
 - d) 5.6L
 - e) None of the above

$$(65L) / kg$$

$$65 \times 80$$

$$5200$$

6. Which one of the following White blood cell count lies within the normal count?

- a) 2,000/ μ L
- b) 3,000/ μ L
- c) 12,000/ μ L \times
- d) 13,000/ μ L
- e) None of the above

$$55 kg$$
$$3.5 \times 10^6$$
$$(3.6)$$

$$3.6$$

7. Physiological level of a biochemical disorder can be determined in which state of the patient?

- a) Resting
- b) Stressed ✓
- c) Confused
- d) Any state
- e) Any of the above

8. Which one of the following body chemicals has a normal range similar for both men and women regardless of age?

- a) Zinc
- b) Iron ✓
- c) Phosphate
- d) Copper
- e) Magnesium

9. The following statements on prokaryotic cells is correct except?

- a) Cells have no true nucleus
- b) Most are unicellular
- c) They lack mitochondria
- d) They are larger than eukaryotic cells ✓

10. Binary fission:

- a) Occurs in eukaryotic cells
- b) Is a process of sexual reproduction
- c) Results in identical copies of the mother cell ✓
- d) Occurs as a result of mutations

11. Regarding staining methods:
- ✓ a) Auramine-rhodamine is a fluorescent dye that stains acid fast organisms
 - b) The gram stain is used to detect blood parasites
 - c) Potassium hydroxide is used as a contrast stain
 - d) India ink is used to differentiate gram positive bacteria from gram negative bacteria
12. What is the correct order of staining reagents in a Gram staining procedure?
- a) Crystal violet – Alcohol – Iodine – Safranin ✓
 - b) Crystal violet – Iodine – Alcohol – Safranin ✓
 - c) Iodine – Safranin – Crystal violet – Alcohol
 - d) Alcohol – Crystal violet – Iodine – Safranin
 - e) Crystal violet – Safranin – Alcohol – Iodine
13. The correct way to write the genus and species names of bacteria is
- a) *Staphylococcus aureus* ✓
 - b) *staphylococcus aureus*
 - c) *Staphylococcus Aureus*
 - d) *staphylococcus Aureus*
 - e) *Staphylococcus. Aureus*
14. The ability of an infectious agent to cause disease is called
- a) Virulence
 - b) Toxigenicity
 - c) Pathogenicity ✓
 - d) Infection
 - e) Invasion
15. Poxvirus is a
- a) Bullet shape
 - b) Rod shape
 - c) Brick shape ✓
 - d) Filamentous shape
16. Viral peplomers are composed of
- a) Carbon
 - b) Phosphorus
 - c) Calcium
 - d) Glycoproteins ✓

17. Which of the following is the smallest virus?

- a) Rabies virus
- b) Hepatitis virus
- c) Parvovirus ✓
- d) Tobacco mosaic virus

18. Who is considered the "father of immunology"?

- a) Edward Jenner
- b) Robert Koch
- c) Louis Pasteur
- d) Emil von Behring ✗

19. Which historical event led to the discovery of vaccines and the development of immunization techniques?

- a) The discovery of antibiotics
- b) The Black Death pandemic
- c) The Spanish Flu pandemic ✗
- d) The invention of the microscope

20. Which of the following is a physical barrier in innate immunity that prevents entry of pathogens?

- a) Cytokines
- b) Interferons
- c) Mucous membranes ✓
- d) T cells

Section B, Short answer questions.

1. Define the following parasitology terms:
 - a) Symbiosis
 - b) Parasitism
 - c) Definitive host
 - d) Zoonosis
 - e) Vector
2. In selecting laboratory tests for a Biochemical disorder, which questions about the patient are you seeking answers? Which answers are provided by these questions?
3. List the major microscopic methods and give details of the features of each method that differentiate it from other microscopic methods.
4. Bacteria can be either pathogenic or commensal. Describe the features that make some bacteria pathogenic.
5. Explain to primary and secondary immune response after a SARS-COV2 infection.