ASCLS Student Forum

2012-13

MLS/MLT Study Questions

1. What 2 antibodies can you rule out heterozygously when the patient has received Rhogam?
    A. Anti-M & Anti-S
    B. Anti-C & Anti-E
    C. Anti-c & Anti-e
    D. Anti-K & Anti-E

2. Define Landsteiner's Rule as it relates to Immunohematology.

3. Which of the following antibodies is associated with Hemolytic Disease of the Newborn (HDN)?
    A. Anti-Fy^a
    B. Anti-K
    C. Anti-JK^b
    D. All of the Above

4. Which lectin is used to identify A_1 on red cells?
    A. Ulex europaeus
    B. Dolichos biflorus
    C. Vicia graminea
    D. Iberis amara

5. When it comes to donor testing (physical characteristics), please answer the following statements as true or false:
    A. Donors must appear to be in good health
    B. Donors must have a minimum hematocrit of 38%
    C. Donors must have a minimum hemoglobin of 13.5
    D. Donors must have a temperature of less than 100°F
    E. Donors must weigh at least 115 lbs.

6. Name 2 advantages and 2 disadvantages concerning autologous blood donation.

7. If *Staphylococcus aureus* is grown out on Mannitol Salt Agar (MSA), what color are the colonies?
    A. Yellow
    B. Red
    C. White
    D. Purple

8. "Pfeiffer's Bacillus" is another name for which type of bacteria?
    A. Corynebacterium urealyticum
    B. Bordetella pertussis
    C. Vibrio cholera
    D. Haemophilus influenza

9. Which of the following is true about *Eikenella corrodens*?
    A. Causes pitting in agar
    B. Produces a bleach-like odor
    C. Both A & B
    D. None of the above

10. The PYR test detects which compound?
    A. Tryptophanase
    B. Sodium deoxycholate
    C. L-pyroglutamyl aminopeptidase
    D. N-bromosuccinimide

11. Define the following terms:
    A. Chromatid Bars
    B. Definitive Host
    C. Sporogony

12. India ink is used to identify which of the following organisms?
    A. Cryptococcus neoformans
    B. Candida albicans
    C. Coccidiodes immitis
    D. Histoplasma capsulatum

13. Name 4 types of Herpes Viruses.

14. What are the 5 classes of immunoglobulins?

15. Define the following terms as they relate to immunology:
    A. Immunogen
    B. Epitope
    C. Haptens
    D. Adjuvants

16. IgG makes up about how much of the immunoglobulins in the blood?
    A. 15%
    B. 40%
    C. 55%
    D. 85%

17. *Borrelia burgdorferi* is the type of bacterium that causes Lyme disease. How would you characterize the shape of this bacterium?
    A. Bacillus
    B. Spirochete
    C. Cocci
    D. None of the above

18. Rocky Mountain Spotted Fever is caused by which organism?
    A. L. pneumonia
    B. T. gondii
    C. R. prowazekii
    D. R. rickettsii

19. Fibrinogen, von Willebrand's factor, platelet-derived growth factor (PDGF), and PF4 are found in which type of functional granule found in platelets?
    A. Dense Core Granules
    B. Cytoplasmic Granules
    C. Alpha Graules
    D. Beta Granules

20. Bernard-Soulier syndrome is a condition associated with platelets. It is characterized with a deficiency in:
    A. Stored ADP
    B. PF3
    C. Glycoprotein Ib
    D. von Willebrand's factor

21. Coumadin (Warfarin) interferes with Vitamin K metabolism, therefore inhibiting Vitamin K dependent coagulation factors. Which factors are these?
    A. I, II, V, IX
    B. II, V, VII, IX
    C. V, VIII, X, XI
    D. II, VII, IX, X

22. Acetone, acetoacetic acid, and beta-hydroxybutyric acid are the 3 types of ketones. Ketones are products of what type of metabolism?
    A. Fat
    B. Protein
    C. Carbohydrate
    D. Nucleic Acid

23. If 3 tubes of CSF are collected, how are the tubes distributed to the different departments (which department gets which tube)?

24. The Romanowsky Stain is the most commonly used stain for routine peripheral blood smears. What are 2 reasons the smear might stain too blue and 2 reasons why the smear might stain too red?

25. Please state what cells the following special stains are used to detect or distinguish:
    A. Acid Phosphatase (AP) Leukocyte Stain
    B. Peroxidase Stain
    C. Leukocyte Alkaline Phosphatase (LAP) Stain
    D. Tartrate-resistant Acid Phosphatase Stain
    E. Periodic Acid-Schiff (PAS)
    F. Sudan Black B
    G. Alpha-naphthyl Acetate Esterase Stain

26. In hemoglobin electrophoresis, what order do hemoglobins S, C, and A migrate (list the hemoglobins with the fastest migration first)?

27. If a patient is heterozygous for a hemoglobinopathy, approximately, what is the maximum percentage of the abnormal he or she can have?
    A. 15-20%
    B. 30-35%
    C. 45-50%
    D. 60-70%

28. Which type of hemoglobin is resistant to alkali denaturation?
    A. Hgb S
    B. Hgb A
    C. Hgb F
    D. Hgb C
29. Multiple Myeloma is a plasma cells malignancy. Which of the following is not a hematological find with this disease process?
    A. Normocytic/Normochromic Anemia
    B. Decreased ESR
    C. Increased Rouleaux
    D. Both A & B

30. Determine the anion gap for a Sodium of 139, Chloride of 100, and Bicarbonate of 32.

31. When is the appropriate time after dose to draw a Digoxin level?
    A. 2 hours
    B. 4 hours
    C. 8 hours
    D. 16 hours

32. True or False. When a patient is suffering from intravascular hemolysis his/her haptoglobin will be low.

33. If a glucose specimen sits unspun for 4 hours before it can be analyzed, the glucose concentration in the sample will:
    A. Increase
    B. Decrease
    C. Stay the Same
    D. Depend on the pH

34. Quality Control is out on the chemistry analyzer. What are 2 things you might do to correct this problem?

35. All of the following are anticonvulsant drugs except:
    A. Phenytoin
    B. Phenobarbital
    C. Tegretol
    D. Theophylline

36. Calculate the LDL using the following lipid results: Cholesterol 254, HDL 52, Triglyceride 528.