

Vendor: ASCP

Exam Code: ASCP-MLT

Exam Name: MEDICAL LABORATORY TECHNICIAN

- MLT(ASCP)

Version: Demo

QUESTION 1

Phase of reactivity is primarily at immediate spin (4+) and reactions get weaker at AHG (w+). There is no specific pattern of reactivity and the auto control is negative which rules out an autoantibody. This is a strong cold antibody which is still

slightly present after incubation and washing.

Activation and binding of the antibody takes place at room temperature or colder. Eliminating this phase will prevent the antibody from binding. Cold antibodies usually are more of a nuisance to blood bankers and are not clinically significant.

When performing an antibody screen, both the screen cells are 4+ at immediate spin and W+ at AHG. The antibody panel shows 4+ reactions at immediate spin and W+ reactions at AHG and there is no specific match to the reaction pattern.

The auto control is negative.

What would be a logical next step?

- A. Have patient redrawn
- B. Repeat testing using warmed patient sample and reagents and just do AHG reading
- C. Run an enzyme panel

Correct Answer: B

QUESTION 2

Measures Light scatter by particles - Nephelometer Measures change in vapor pressure - Osmometer Measures amount of electricity passing between two electrodes - Coulometry Measures absorbance of light at a specific wavelength - Spectrophotometer Lab operations Matching

1.

Measures Light scatter by particles

2.

Measures change in vapor pressure

3.

Measures amount of electricity passing between two electrodes

4.

Measures absorbance of light at a specific wavelength

- A. Coulometry
- B. Nephelometer

- C. Spectrophotometer
- D. Osmometer

Correct Answer: ABCD

QUESTION 3

The MCV is indicative of microcytosis with MCV=100 fL, this would be indicative of macrocytosis. An RDW that was outside of normal limits would be indicative of a heterogenous cell population.

An 18 year old female has a CBC as part of a routine physical exam. The following results were obtained and the physician determines she is anemic. After reviewing her CBC results shown below, which of the following would be an

appropriate description of the anemia?

White blood cells (WBC): 5.6 x 10^9/L (RR:4.0-10.0 x 10^9/L)

Red blood cells (RBC): 3.7 x 10^12/L (RR: 4.2-5.9 x 10^12/L)

Hemoglobin: 9.9 g/dL (RR:12-16 g/dL)

Hematocrit: 28% (RR: 37-48%)

MCV: 75 fL (80-100 fL)

RDW-CV: 14% (RR: 11.0-15.0%)

A. Macrocytic, heterogenous

B. Macrocytic, homogenous

C. Microcytic, heterogenous

D. Microcytic, homogenous

Correct Answer: D

QUESTION 4

First, the RBC indices must be calculated. The MCV ((Hct/RBC) \times 10) = 71 fL. Since the reference range for the MCV is 80-100 fL, this anemia would be classified as microcytic. The MCH ((Hgb/RBC) \times 10) = 19.3 pg. Since the reference range for the MCH is 27-33 pg, this would be considered hypochromic. Finally, the MCHC ((Hgb/Hct) \times 100) = 27%. Since the normal range for the MCHC is 33%-36%, this would indicate hypochromia which correlates with the MCH findings. The correct answer is therefore microcytic, hypochromic anemia.

A patient is admitted to the emergency room with lethargy and pallor. The CBC results are as follows:

 $RBC = 4.1 \times 1012/L$

Hemoglobin = 7.9 g/cL

Hematocrit = 29%

How would you classify this anemia?

A. microcytic, hypochromic

B. normocytic, normochromic

C. macrocytic, normochromic

D. microcytic, hyperchromic

Correct Answer: A

QUESTION 5

All of the following have been an inspection deficiency for CLIA-approved laboratories except:

- A. The laboratory needs to verify that written policies and procedures are established for patient testing.
- B. The laboratory needs to verify the accuracy of any test or procedure it performs.
- C. The laboratory needs to verify that the eyewash stations are properly functioning.
- D. The laboratory needs to verify the proper storage for reagents and patient specimens.

Correct Answer: C

QUESTION 6

When an antigen comes in contact with the skin, the antigen is processed by cells in the epidermis and come in contact with T lymphocytes. T lymphocytes recognize the antigen as foreign and circulate through the bloodstream back to the epidermis and produce an inflammatory response to eliminate the antigen, but this immune response can produce a characteristic rash in the skin called contact dermititis.

Contact dermatitis is mediated by:

A. B lymphocytes

B. Macrophages

C. Polymorphonuclear cells

D. T lymphocytes

E. Chemokines

Correct Answer: D

QUESTION 7

Enterococcus spp. are bile esculin positive and grow in 6.5% NaCl. If they grow on the 6

	Correct	Answer:	
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QUESTION 8

An international, nonprofit organization that establishes standards of best current practice for clinical laboratories is

- A. Centers for Disease Control and Prevention (CDC)
- B. Commission on Office Laboratory Accreditation (COLA)
- C. Clinical Laboratory Standards Institute (CLSI)
- D. the Joint Commission

Correct Answer: C

QUESTION 9

Caffeine benzoate solution is used to split the unconjugated bilirubin protein complex releasing the bilirubin so that it can react with diazotised sulphanilic acid. The tartrate buffer creates an alkaline solution and converts the red acid bilirubin to a green coloured compound which can be measured spectrophotometrically.

Which substance is used in the Jendrassik-Grof method to accelerate the reaction of unconjugated bilirubin with the diazo reagent?

- A. NADH
- B. N-butanol
- C. caffeine
- D. acetic acid

Correct Answer: B

QUESTION 10

The renal threshold is the maximum amount of a substance that the kidney can prevent from entering into the urine.

UA and body fluids

The renal threshold is best described as:

- A. Concentration at which a substance in the blood spills into urine
- B. Concentration at which reabsorption first occurs
- C. Concentration at which kidney can no longer filter the blood
- D. Concentration at which kidney failure begins

QUESTION 11

As magnification DECREASES, the opening of the iris diaphragm will...

- A. stay the samel
- B. decrease (get smaller)
- C. increase (get bigger)

Correct Answer: B

QUESTION 12

Secondary granules, also known as specific granules first appear in the myelocyte stage next to the nucleus. In neutrophils this is termed the "dawn of neutrophilia". What is one of the main characteristics of secondary granules in the neutrophilic granulocyte cytoplasm?

- A. Appear first at the myelocyte stage
- B. Dissolve in mature granulocytes
- C. Are formed on the mitochondria
- D. Are derived from azurophil (primary) granules

Correct Answer: A