

Phlebotomy Final Exam:

Name: _____

1. Your patient is scheduled to have pre-operative testing. The morning prior to hip replacement surgery the client arrives at the lab for their tests. One of the blood tests is a type a cross match. You notice that they are fearful when they arrive. The patient asks you, "Why is the doctor ordering a type and cross match for me? Is he expecting me to lose a lot of blood?" Your best answer would be which of the following?
 - a. This is a standardized and common test prior to many types of surgeries.
 - b. You seem to have some concerns regarding your upcoming surgery. This test is quite common for pre-operative surgeries. I would suggest that you contact your doctor and express your concerns.
 - c. Yes, it is quite common to lose a lot of blood, which is why it is important to know your blood type.

2. Albumin, AST, and ALT are tests that measure...
 - a. Kidney function
 - b. Liver function
 - c. Immunoglobulins

3. Which of the following are considered electrolytes?
 - a. Na, K, Phos, CO2
 - b. Bun, Bili Direct, CO2, Ca
 - c. Ca, Na, Cl, CO2
 - d. Cl, K, Na, CO2

4. The preservative K2EDAT (Potassium EDTA) is found in which of the following tubes?
 - a. Red top
 - b. Blue top
 - c. Grey top
 - d. Lavender top

5. What is the reason that a Lavender top tube should not be drawn prior to drawing electrolytes?
 - a. There will be a false elevation in sodium.
 - b. There will be a false elevation in potassium.
 - c. There will be a false depletion in sodium
 - d. There will be a false depletion in potassium

6. A gold top, tiger top tube and a red top tube are all SST's.
 - a. True
 - b. False

7. When drawing a stat CMP, the phlebotomist should choose to use which of the tubes?
 - a. A Lithium Heparinized green top tube.
 - b. A Sodium Heparinized green top tube.
 - c. A yellow top tube.

8. The chemical in the bottom of gold tubes is which of the following?
 - a. Glycolytic inhibitor and Na EDTA
 - b. Silicon gel
 - c. Na Fluoride

9. The purpose of gentle inversion is to help the blood.
 - a. Clot
 - b. Keep from clotting
 - c. Form a matrix

10. You are inspecting the veins of your client while the tourniquet is on their arm. You are feeling nervous inside because you are unable to palpate a vein. Your client is getting nervous as well. Your best course of action would be which of the following?
 - a. Smile, remove the tourniquet and explain that you are having a difficult time finding a vein in there arm and ask if you may attempt to inspect their other arm.
 - b. Explain to the client that they have bad veins in this arm and that you are going to inspect their other arm.
 - c. Get another phlebotomist.

11. It is always better to use Povadine iodine or Betadine when cleansing the skin prior to any venipuncture that requires blood for which tests?
- Glucose, and Hgb A1C
 - Blood Cultures
 - Fasting Glucose
 - All of the above
12. As a hospital phlebotomist you have to perform a venipuncture on a patient with TPN (total Parenteral Nutrition) drip. Knowing that this is a high glycemic infusion with lipids you would....
- Shut off the IV for 20 minutes prior to drawing in the same arm.
 - Ask the nurse to shut off the IV for 15 minutes, record the medication infusing, and then draw on the arm opposite that has no IV ports.
 - Disconnect the line, flush with 20 mL NS, pull off waste blood, flush and then draw.
13. Your client is coming in for their regular Prothrombine Time draw. The client tells you that their doctor had to decrease their dose of _____, because their INR levels were greater than _____, and their PT was greater than _____ seconds.
- Heparin, 2.5, 55
 - Coumadin, 2.0, 65
 - Coumadin, 3.5, 85
14. Your client is scheduled for the blood test Hgb A1C. This is a test that....
- measures the amount of glucose that is bound to the blood cell surface over 120 days.
 - Measures the amount of insulin produced by the pancreas over 120 days.
 - Measures the amount of glucose that is free floating in the blood over 130 days.

15. When taking a person's blood pressure it is important to first assess the baseline pressure by which of the following steps...
- Find the radial pulse, pump the cuff until the pulse is occluded, then quickly release the pressure, next re-inflate cuff to 30mmHg above the point where the radial pulse was occluded, next let out the air from the cuff slowly listening for the first beat and the last beat.
 - Find the brachial pulse, pump the cuff until the pulse is occluded, then quickly release the pressure, next re-inflate cuff to 30mmHg above the point where the radial pulse was occluded, next let out the air from the cuff slowly listening for the first beat and the last beat.
 - Find the radial pulse, pump the cuff until the pulse is occluded, then slowly release the pressure, next re-inflate cuff to 60mmHg above the point where the radial pulse was occluded, next let out the air from the cuff slowly listening for the first beat and the last beat.
16. Diabetes is a prevalent health problem in the healthcare environment, which of the following about diabetes is true?
- Diabetes is a viral immune disease. True or False
 - Diabetes can be cured. True or False
 - Diabetics are subject to many health complications such as heart disease, kidney disease and hypertension. True or False
17. There are 100 Units in _____ 's.
- 3mL
 - 1mL
 - 10mL
18. A low blood sugar is ...
- Less than 70
 - Causes profuse sweating
 - Lethargy
 - Confusion
 - Can be reversed by insulin
 - Can be reversed by glucose
 - All of the above
 - a, b, c, d, and f

19. High blood sugar can cause a condition known as.
- Diabetic Keto Acidosis
 - Hypoglycemia
 - Hyperthermia
20. Your patient has a blood glucose of 105, you are ordered to give them 8 Units of Regular Insulin. You would.
- Give the insulin and monitor the patient for any ill effects.
 - Do not give the insulin based on the low blood sugar results and report to the supervisor your reasoning.
 - Give the insulin as ordered.
21. You are to give 3 Units of insulin.
- Draw up the insulin using a 3mL syringe
 - Draw up the insulin using a 100 Unit syringe
 - Draw up the insulin in a 1 mL syringe
22. You take a manual blood pressure on a client and get a reading of 189/90. You would
- Retake the reading with a monitored cuff
 - Report your findings to the nurse
 - Retake the blood pressure manually on the opposite arm
23. You are to give 35 Units of Lantus. You begin by drawing up..
- 35 Units of Lantus
 - 35 Units of Homolog
 - 15 Units of Lantus long acting and 20 Units of Novolog fast acting

24. You are about to take a patient's blood sugar. You would begin by doing which of the following...
- a. First Calibrate the glucose monitor, greet the patient and ask them if you can test their blood sugar, use a alcohol wipe on the finger of their choice, wait until it has dried then explain that they are going to feel a little poke, use the lancet at a 90 degree angle on the side of the finger and then wipe away the first drop of blood, gently pump until another drop of blood is expelled and hold the test strip at a 45 degree angle at the base of the drop of blood until the blood saturates the strip. Then insert the strip for reading, and cover the patients finger with gentle pressure until no further blood is observed from the site. Thank the patient and let them know their blood sugar level .
 - b. First Calibrate the glucose monitor, greet the patient and ask them if you can test their blood sugar, wash your hands, and put on gloves, use a alcohol wipe on the finger of their choice, wait until it has dried then explain that they are going to feel a little poke, use the lancet at a 90 degree angle on the side of the finger and then wipe away the first drop of blood, gently pump until another drop of blood is expelled and hold the test strip at a 45 degree angle at the base of the drop of blood until the blood saturates the strip. Then insert the strip for reading, and cover the patients finger with gentle pressure until no further blood is observed from the site. Thank the patient and let them know their blood sugar level .
 - c. First Calibrate the glucose monitor, greet the patient and ask them if you can test their blood sugar, wash your hands and put on clean gloves, use a betadine wipe on the finger of their choice, wait until it has dried then explain that they are going to feel a little poke, use the lancet at a 90 degree angle on the side of the finger and then wipe away the first drop of blood, gently pump until another drop of blood is expelled and hold the test strip at a 45 degree angle at the base of the drop of blood until the blood saturates the strip. Then insert the strip for reading, and cover the patients finger with gentle pressure until no further blood is observed from the site. Thank the patient and let them know their blood sugar level .
25. The cranial nerve that can affect the blood pressure is called...
- a. The vagus nerve
 - b. The hypoglossal nerve
 - c. The abducens

For the questions below list the order of draw according to tube color, number of tubes used and any preparation needed such as inversion times and whether or not it is a fresh frozen specimen. You may refer to your lab handouts as reference.

26. Your labs are as follows; TSH, Type and Cross, Lipid Panel, Blood Cultures

27. Your labs are as follows; Dilantin level, Gentamycin Peak, stat cardiac enzymes

28. Your labs are as follows; WBC, Hct (hematocrit), AST, ALT, PTT

29. Tegretol level, Vancomycin trough, Cardiac enzyme profile

30. You find a patient lying in bed, dripping profusely in sweat, the patient is lethargic and their mentation is obtunded. Knowing that the patient is a diabetic you would immediately..

- a. Administer fast acting glucose in the form of a high glycemic snack, such as orange juice with sugar and then perform a blood sugar test.
- b. Administer the 11:00 AM dose of insulin that they missed at 10:00 AM
- c. Check their blood sugar first.

31. Digoxin is a heart medication that requires.....

- a. The patient's apical pulse to be checked prior to administration
- b. Regular blood draws to assess levels.
- c. Potassium level assessment
- d. All of the above.

32. When giving beta blocker medication it is not unusual for the patient to have...

- a. Difficulty with respiration
- b. Lowered heart rate
- c. Increase in blood pressure
- d. All of the above
- e. A and B only

33. A doctor's orders reads... give catapres 1mg stat...for a BP of 197/89 Upon reading this order you would...
- Give the medication
 - Recognize that the medication is too high a dose and would drop the patient's blood pressure too low.
 - Hold the medication, and consult the nurse due to the high dosage.
34. Foods that are high on the glycemic index include all but which of the following..
- White bread
 - Brown rice
 - Soda
 - Cookies
 - Pancakes
35. A long distance runner would benefit more from which of the following foods prior to their run?
- A dish of spaghetti
 - A candy bar
 - A glass of juice
36. You have to take a blood pressure on a patient who has very large arms. You notice that your cuff is too small. Realizing this, if you were to take the patient's BP with this cuff then the reading would be.
- Slightly elevated but acceptable since there are no other cuffs around.
 - Elevated and you should use instead a large cuff of appropriate size
 - Lower than normal
37. Lisinopril is a blood pressure medication that is known as a
- Angiotensin conversion enzyme inhibitor
 - Beta blocker
 - Benzodiazepine
38. Your patient's blood pressure runs low. They stand up to fast and feel like they are going to pass out... this type of symptom is known as...
- Low blood pressure side effects
 - Orthostatic hypotension
 - Orthorhombic hypertension

39. The Dr. would like to find out how his patient's kidneys, liver, electrolytes and acid/base balance is functioning. The most appropriate test would be which of the following?
- Liver Panel, Kidney Panel and CMP
 - The CMP for the initial test.
 - The CMP and a Kidney Panel
40. Your client arrives for today's blood work and hands you their doctor's order for tomorrow's blood work which reads, NPO after MN. The patient asks you what this means. You would explain.....
- That they are not to eat or drink anything before Midnight.
 - That they are not to eat or drink anything past Midnight.
 - That they are not to eat or drink anything past 8:00PM.
41. Your patient appears to be dehydrated and is not able to spell their name. You check to see if they arrived with anyone and find out that they drove themselves to the lab. Prior to your draw you would....
- Report the mental status change to your supervisor, offer the client some juice if they are not NPO and call the patient's family member.
 - Ask the client to take out their wallet so that you can identify them.
 - Tell them to go and get something to eat and drink.

40. As a phlebotomy technician you are aware that acute dehydration in the elderly and young causes changes in mentation due to ...

- Water imbalance
- electrolyte imbalance
- Protein imbalance

41. Your client asks you to use a butterfly needle on them because it is smaller and doesn't hurt as much. Realizing that butterfly needles are expensive, you would...

- explain to the client that you cannot use a butterfly needle on them but you will be very gentle.
- Use the butterfly needle to help ease the client's fear.
- pay no attention to what the client asks and use the standard needle because they don't know phlebotomy.

42. BUN and Creatinine are

- a. part of the liver function tests
- b. waste products filtered out of the blood by the kidneys
- c. part of the renal panel
- d. both B and C.

43. Your patient brings in their script for the following tests. They are as follows.... Lytes, U/A CC, Blood Cultures. You would first do which of the following?

- a. Offer the client some water and explain that the doctor is requesting a urine sample. Ask the client if they feel like using the bathroom and explain to them how to obtain a clean catch urine specimen. Then, after they have used the restroom, offer to draw their other labs, blood cultures first then lytes.
- b. Ask the client if they would like you to explain, "clean catch" specimen, if so, find a private area and explain to the client how to go about collecting a clean catch specimen. Offer the client a place to sit and some fluids if they feel that they cannot void. Then upon finishing, ask them permission to draw their blood.
- c. Tell the client where the bathroom is located and hand them a specimen bottle, tell them to bring it back to you when they are done and to go to one of the phlebotomy draw rooms, and that you would be with them shortly.

Medical Terminology

44. The pt. has an ABD incision with a J-Tube, draw in the L AC only.

- a. Abdominal, Jejunostomy Tube, Left Ante Cubital
- b. Abduct, Junkit tube, left arm before meals
- c. Abdomen, Jones Tube, Left arm, after meals

45. Pt. is to have pre-op blood work for Mon Am CABG.

- a. Pre-operative, Monday morning, coronary arterial bypass graft
- b. Post Operative, Monday morning, carry arm bandage
- c. Ambulatory motion, before medications, as needed

46. Obtain a CC/post voided, and stool for Guiac via Colostomy Bag.

- a. 1 cubic centimeter after urination, and a stool specimen
- b. Clean catch urine after first urination, and a stool specimen
- c. Clean catch mid stream, and stool culture.

47. Pt. has a Fx of the LE, and a I.V. in the rt hand. Be sure to watch for SOB when performing ADLs.

- a. Fracture, Lower extremity, right, shortness of breath, activities of daily living.
- b. Fracture, left extremity, right, signs of breathing, always do last.
- c. Fracture, lower extremity, right, signs of bloating, activities of daily living.

48. Take pts. V.S. q shift, and BS AC and HS

- a. Vital signs, every 12 hours, and blood sugars before and after meals
- b. Vital signs, every 6 hours and blood sugars after meals and at night
- c. Vital signs, every 8 hours, and blood sugars before meals and at hour of sleep.

49. Pts dx is UTI, give one tbsp of Metamucil q 4 hrs. and monitor for BM.

- a. Diagnosis, urinary tract infection, every 4 hours, bowel movement
- b. Disease, urinary tract intestine, every 4 hours, bowel movement
- c. Diagnosis, urinary tract infection, every 4 hours, basic maneuvers

50. Collect BC stat.

- a. Bowel collection, immediately
- b. Clean catch, specimen, immediately
- c. Blood Cultures, immediately

51. Take pts. Ht, wt, and VS q.d. AC.
- Height, weight, vital signs, always correct.
 - Height, weight, very simple, before breakfast.
 - Height, weight, vital signs, before breakfast.
52. Always use UP before performing peri care.
- Universal precautions,
 - Upper positioning
 - Universal prescription
53. Pt. has a Rx. For antihypertensive medication due to a dx of CHD.
- Prescription, diagnoses, coronary heart disease
 - Prescription, disease, coronary heart development
 - Prescription, diagnosis,
54. Amb pt. B.I.D., and obtain a PT q 8 hrs
- Abduct patient every 2 hours partial thrombin time every 8 hours
 - Ambulate patient twice daily, and prothrombin time every 8 hours
 - Ambulate patient every 12 hours, and prothrombin time every 8 hours
55. Take pts BP with manual cuff on LUE
- Blood pressure, left upper extremity
 - Bathroom privileges, left upper extension
 - Bed pan, left upper elevation
56. Record pts. I/O q shift.
- Initial output every 9 hours
 - Intake and output every shift
 - Intake and out through, every 12 hours

57. Pt C/O pain in RLE and has N/V.
- Complaint of , right lower extremity, nothing by mouth
 - Complaint of, right lower extremity, nausea and vomiting
 - Correct of, right lower extended, nausea and vomiting
58. Pt has an upper GI bleed and a CVA.
- Gastro-internal, coronary vascular abduction
 - Gastrointestinal, cerebral vascular accident
 - Gall bladder infection, cerebral vascular auscultation
59. Fluids should be measured in mL and IV to be D/C'd
- Milliliters, discontinued
 - Milliequates, discontinued
 - Molar equivalents, discontinued
60. Transfer pt to W/C using gait belt prn.
- Wheel chair, when necessary
 - With crutches, when needed
 - Without cane, as desired
61. Give pt O2, prn
- Water at hour of sleep
 - Oxygen, when needed
 - Water at hospital sink
62. Raise pts HOB 90 deg
- Heart oxygen blood, folwers
 - Head of bed, high fowlers
 - Head of bowel, low fowlers
63. Perform ADLs and Cath care ad lib.

- a. Activities of daily living, catheter care, as desired
 - b. Always do last, catheter, when needed
 - c. Always do last, catheter, when tolerated
64. You have three patients with labs. Each lab is for an individual patient and are as follows; BC, stat lytes, CEP Which patient would you draw first?
- a. Do stat lytes first in a Li Heparinized tube, then go to the next patient for the Cardiac Enzyme Profile, and last do Blood Cultures.
 - b. Do stat lytes first, then Blood Cultures, then the Cardiac Enzyme Profile in a yellow top tube because it is not stat.
 - c. Draw the patient with the Blood cultures first, then do the stat lytes, then do the cardiac enzyme profile.
65. You notice that the bevel of the needle looks dull. You would...
- a. Choose another needle
 - b. Continue to use the same needle
 - c. Show your supervisor
66. Patients who are going to get blood usually have an.....
- a. 21 gauge needle inserted
 - b. 18 gauge needle inserted
 - c. 16 gauge needle inserted
67. Phlebotomist can flush an IV Port.
- a. True
 - b. False
 - c. Only when the nurse asks them.
68. The test for Serum HCG can be done on a male.
- a. True
 - b. False
69. The test for a Bence Jones Protein is a test performed on....

- a. Blood only
- b. Urine only
- c. Females only

70. The test requires a Western Blot for positive identification of Aids.

- a. Know that this is a offsite test and must have its own designated tube, (yellow)
- b. Is a immunoglobulin test
- c. Is a liver test.

71. You have the following labs on one patient.

(BUN/Creatinine, Lipid Panel, Sickle Cell)

- a. Sickle Cell, (gold), Bun/Creatinine and Lipid Panel lavender)
- b. Bun/Creatinine, & Lipid Panel (one red), then one lavender for sickle cell.
- c. 2 golds, and one lavender for the Sickle Cell

72. You notice a scar on your patients arm, and you can feel the vein just below the scar. You would.

- a. Choose another location due to the scar
- b. Draw through the scar tissue
- c. Understand that scar tissue is not the same as normal tissue and that the healing time may take longer, so it is best to draw from another site.

73. Cleansing a venipuncture site with alcohol can...

- a. Give false results.
- b. Elevates blood sugar results
- c. Can elevate all blood alcohol tests
- d. All of the above

74. Your patient has a latex allergy. You would make sure that all of your equipment is latex free.

This includes...

- a. The tourniquet, your gloves, and the tape.
- b. The tourniquet and your gloves.
- c. Just the tourniquet since it is touching the person.

75. The patient you are about to draw on has the following labs, Blood cultures, PT/PTT, and a BMP. The patient's diagnosis is FUO or Fever of Unknown Origin. You get to the room and notice that the patient is in a private room and that they are on a ventilator. Seeing that there is no isolation cart outside the door you would.

- a. Go in using standard precautions
- b. Request a mask and gown
- c. See the nurse to find out more about possible contagions, and then decide what PPE you should use.

76. A patient in the out patient lab sees you and says that they want another phlebotomist because you don't know what you're doing. You would..

- a. Graciously bow out and find another phlebotomist, taking care not to let your facial expressions show that you are hurt.
- b. Try to explore why the patient feels that way, by investigating further.
- c. Give the patient a mean look, and walk away.

77. One of your patients has contagious Shingles and has come to the draw site while they are still infected. Knowing that Shingles is contagious via contact precautions you would.

- a. Double glove, and wear an isolation gown.
- b. Single glove and observe where the Shingles are located.
- c. Ask the client in private where on their body is the outbreak and if in a concealed location, observe standard precautions.

78. Na Citrate is a preservative that is found in which of the blood vial tubes.

- a. Red
- b. Blue
- c. Lavender
- d. Green

79. You have been requested to draw stat Troponin levels. You know that this is a test ...

- a. To see if the muscle protein troponin is in the blood, if so this indicates a possible heart attack.
- b. To measure the medication Troponin in the blood
- c. To determine if the patient has had a CVA

80. Troponin levels are....

- a. Timed over the initial and then 6 hour and 12 hour
- b. Are not timed
- c. Are done over a period of days

81. CK isoenzymes and a BNP are....

- a. Kidney tests
- b. Liver function tests
- c. Muscle protein Bio markers to identify a Heart Attack

82. Bacterial cultures are grown on a specific media which can include...

- a. Water, and oil
- b. Sheeps blood and nutrient augar
- c. Fish oil and mold.

83. A Colony count.. is

- a. The amount of bacterial colonies that have grown from one single strain
- b. The amount of bacterial colonies that have grown from a specimen
- c. The number of bacterial colonies that have been incubated and fed, and are measure in a petri grid.

84. A CFU is

- a. A cubic foot unit
- b. A colony forming unit used in Medical Technology
- c. The collected frozen unit

85. The type of urine that must be collected when a patient has a foley bag is a ...

- a. Bence Jones
- b. Clean Catch
- c. Mid stream

86. Nosocomial infections are not contagious to health care workers.
- True
 - False
87. Someone in reverse isolation is being...
- Protected from us
 - Protected so hospital care workers don't get the disease
 - Protected from the media
88. The immunoglobulin titers are as follows...
- IgG, IgA, IgE, IgM,
 - IgG, IgJ, IgE, IgN
 - IgG, Ijg, IEG, IgN
89. The importance of a sterile field when drawing blood is important...
- To prevent the spread of disease and keep the patient safe.
 - To prevent the spread of bacteria and viruses, and ensure use of proper medical asepsis.
 - To prevent the spread of infection and to produce reliable outcomes,
90. One of the reasons that the doctor might be ordering post op blood cultures for a patient is to....
- Be sure that there is no infection
 - Identify a current infection
 - Post O.R. protocol
 - All of the above

91. When a patient comes to the lab for a 6 hour fasting blood sugar, it is your responsibility to be sure that the patient...
- Is made as comfortable as possible
 - Is given materials to help pass the time
 - Is checked on regularly and is provided a calm relaxing atmosphere
 - All of the above
92. A CBC is a test that measures ...
- Only one factor in the blood.
 - A series of blood related values
 - Only hemoglobin
93. The ESR rate is a test performed on a,,,
- a red tube
 - a lavender tube
 - a green tube
94. TIBC is a test that measures the capacity of blood to uptake iron, this is a test for which a...
- Gold tube is used
 - Red tube is used
 - Grey tube is used
95. You are to draw a Gentamycin Peak, knowing this you will use.....
- Blue tube
 - Red tube
 - Green tube
96. Dilantin is medication that ...
- Controls seizures
 - Is a anti psychotic
 - Is a antidiabetic

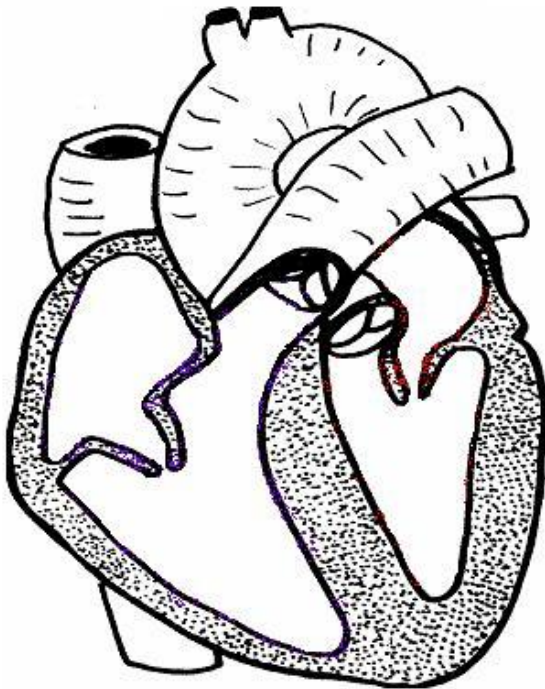
97. Digoxin levels are measured in conjunction with electrolytes to help monitor...
- Toxic levels building up from daily use and the depletion of potassium
 - Livers ability to process the cardiac glycoside
 - Therapeutic levels
98. Patients with vitamin B 12 deficiency may come into the lab for which of the following tests.
- Intrinsic factor
 - TIBC
 - Total Iron
 - All of the above
99. The most important responsibility that a phlebotomist has toward their patient is to ...
- Admit when they have made a mistake
 - Respect and provide privacy
 - Provide comfort
 - A,B, and C
 - B and C only
100. The phlebotomist that does not tell the patient that they drew in the wrong order has done which of the following...
- Perpetrated abuse
 - Denied the patient their rights
 - Denied their comfort
 - Disrespected their person
 - All of the above

. The diagram below shows a section through the heart seen from the same direction as the external view in previous question.

a) Label the following structures:

right and left atria, right and left ventricles, caudal and cranial vena cava, aorta, pulmonary artery and vein, right and left atrio-ventricular valves, pulmonary and aortic semilunar valves.

b) On the diagram of the heart shown above indicate the direction of blood flow through the heart. Use red to show the pathway of oxygen-rich blood and blue the pathway of oxygen-poor blood.



101. Choose terms from the list to complete the sentences below.

atria; right hand side; vena cava; ventricles; atrioventricular valves; pacemaker; pulmonary artery; veins; arteries; left hand side; aorta, coronary artery;

- The top two chambers of the heart are called.....
- These structures stop blood flowing backwards into the atria.
- This side of the heart receives oxygenated blood.
- This is the largest artery in the body.
- These are blood vessels that carry blood towards the heart.
- This structure sets the speed of the heart beats.
- This blood vessel supplies the heart muscle with oxygenated blood?

101. **Fill in the name of the blood vessel in the table below.**

Name of blood vessel	Blood?	Walls?	Towards or away from heart
.....	Oxygenated	Thin	Towards
.....	Oxygenated	Thick	Away from
.....	Deoxygenated	Thick	Away from
.....	Deoxygenated	Thin	Towards

103 **What is the odd one out?**

- a) Right atrium, right ventricle, pulmonary artery, caudal vena cava, aorta,
- b) Left atrium, left ventricle, right ventricle, pulmonary veins, aorta, coronary artery

104. **Arrange these events in the correct order starting with F.**

- A. The left ventricle contracts and blood flows along the aorta to the body
- B. The blood flows through the right atrio-ventricular valve into the right ventricle.
- C. Oxygenated blood flows along the pulmonary veins into the left atrium
- D. The blood passes through the left atrio-ventricular valve into the left ventricle
- E. The left atrium contracts
- F. Deoxygenated blood flows from the caudal and cranial vena cavae into the right atrium.
- G. The deoxygenated blood picks up oxygen
- H. The right atrium contracts
- I. The right ventricle contracts and blood flows along the pulmonary artery to the lungs

105. **In your opinion, state why you think it is necessary to focus on the topic of infection control, pre-analytical variables, and the prevention of needle stick injuries?**

106. **List 5 pre-analytical variables.**

107. **What happens if a vacutainer of blood is shaken vigorously?**

108. What happens to blood cultures if left in direct sunlight for too long a time?

109. When identifying a patient which of the statements below is correct?

a. Please state your full name and spell it for me.

b. You are Jack Kurtis? Right?

110. You are AB (positive), you can therefore accept which of the following blood types?

a. AB+, -

b. A +,-

c. B+,-

d. O+,-

e. all of the above

111. The blood type O is named the.....

a. universal donor

b. universal acceptor

112. The blood type AB is named the.....

a. universal donor

b. universal acceptor

113. Hemophilia A indicates that the person is lacking...

a. Factor X

b. Factor V

c. Factor VIII

114. A serum separator tube has which of the following colors?

a. Gold, Tiger top, Red

b. Blue, Gold, Grey

c. Red, Tiger Top, Lavender

115. Serum contains coagulation factors. True or False

116. When collecting a blood in a blue top tube, the most important pre-analytical variable to be aware of is which of the following?

- a. to fill the tube full with blood**
- b. to waste in a red tube if using a butterfly**
- c. to invert gently 3-4 times.**
- d. all of the above**

117. Blood flows to the heart through _____ and from the heart through _____

- a. arteries, veins**
- b. veins, arteries**
- c. venules, capillaries**
- d. arterioles, venules**

118. The _____ perfuses the heart muscle with blood.

- a. the aorta**
- b. the pulmonary vein**
- c. the coronary arteries**

119. Can a phlebotomist use a 27 gauge to draw blood? Why?

120. The preservative in a blue top tube helps to do which of the following?

- a. preserve the clotting factors in the blood**
- b. preserve the serum in the plasma**
- c. keep fibrinogen from forming fibrin**
- d. all of the above**

121. A gray top tube can be used for blood alcohol testing. State why it is important to observe the pre-analytical variable of not using alcohol on the antecubital fossa prior to venipuncture.

122. Red top tubes without the silicon separator are used for testing medications. Look at your lab sheets and list the medications that can be drawn in a red top tube.

123. The silicon in the gold top tubes is considered a preservative. True or False

124. When drawing a stat lab, the phlebotomist would choose to use which of the following and why?

a. Lithium heparinized tube

b. Sodium heparinized tube.