



BRAINWARE UNIVERSITY
Term End Examination 2020 - 21
Programme – Bachelor of Science in Physician Assistant
Course Name – Laboratory Science
Course Code - BPA302

Semester / Year - Semester III

Time allotted : 75 Minutes

Full Marks : 60

[The figure in the margin indicates full marks. Candidates are required to give their answers in their own words as far as practicable.]

Group-A

(Multiple Choice Type Question)

1 x 60=60

1. (Answer any Sixty)

(i) What areas on an infant are suitable for skin puncture:

- | | |
|----------------------------------------|----------------------------------------|
| a) Any calloused areas of the foot | b) The anterior portion of the foot |
| c) The posterior curvature of the heel | d) The lateral, at portion of the heel |

(ii) The maximum depth to perform a heel puncture on a newborn is:

- | | |
|----------|----------|
| a) 1.5mm | b) 2.0mm |
| c) 2.4mm | d) 2.8mm |

(iii) Which statement is false when setting up an ESR?

- | | |
|--------------------------------------------|------------------------------------------|
| a) It must be read in exactly one hour | b) It should be set up near a centrifuge |
| c) The blood level must be at exactly zero | d) It should be performed on fresh blood |

(iv) Latex gloves protect the lab employee from:

- | | |
|-------------------------------|---------------------|
| a) accidental needle puncture | b) microtome injury |
| c) patient aerosols | d) body fluid |

(v) Blood samples for cell counts must be thoroughly mixed immediately before testing to:

- | | |
|--------------------------------------|------------------------------------------|
| a) prevent the clumping of platelets | b) prevent the formation of small clots |
| c) oxygenate the sample | d) ensure even distribution of all blood |

components

(vi) A blood specimen collected in a heparinized tube is centrifuged. It will separate into:

- a) serum and clot
- b) plasma and clot
- c) serum and plasma
- d) plasma, buffy coat, RBC

(vii) If a patient faints during a venipuncture, you should:

- a) call the physician at once
- b) remove the needle and attend to the patient
- c) yell loudly at the patient to keep him conscious
- d) continue the procedure until all blood is collected

(viii) Graveyard of RBC is _____

- a) Spleen
- b) Liver
- c) Kidney
- d) Thymus

(ix) Which leucocytes release heparin and histamine in blood?

- a) Neutrophil
- b) Basophil
- c) Eosinophil
- d) Monocytes

(x) Size of red blood cell is:

- a) 10 micro meter
- b) 7 micro meter
- c) 8 micro meter
- d) 2 micro meter

(xi) All coagulation factors are stable at low freezing point except:

- a) Factors V & VIII
- b) Factors IX & X
- c) Factors IV & V
- d) Factors II

(xii) One unit of fresh blood arises the Hb% concentration by:

- a) 0.1 gm%
- b) 1 gm%

c) 2 gm%

d) 2.2 gm%

(xiii) Most common Chemical that used as blood bank anticoagulant?

a) EDTA

b) Heparin

c) Tri-Sodium Citrate

d) Double Oxalate

(xiv) Centrifuge whole blood in low speed gives us?

a) RPR

b) PPP

c) PC

d) WBC

(xv) Fresh frozen plasma can be utilized till?

a) 35 days

b) 6 hours

c) 24 hours

d) 1 year

(xvi) A person having Blood group O containing antibodies?

a) Anti A Only

b) Anti B Only

c) Both Anti A and Anti B

d) Anti D only

(xvii) Which immunoglobulin is involved in the delayed hemolytic reaction?

a) IgG

b) IgM

c) IgD

d) IgE

(xviii) Vitamin essential for blood clotting is _____

a) Vitamin K

b) Vitamin A

c) Vitamin B

d) Vitamin C

(xix) Absence of which clotting factor leads to Hemophilia-A?

a) Factor VII

b) Factor VIII

c) Factor IX

d) Factor X

(xx) Red cell count is carried out by _____

- a) Electrogram
- b) Sphygmomanometer
- c) Haemoglobinometer
- d) Haemocytometer

(xxi) The liquid portion of blood remaining after a clot has formed is called:

- a) the buffy coat
- b) serum
- c) plasma
- d) lymph

(xxii) The minimum weight of blood donor should be:

- a) 45kg
- b) 50kg
- c) 55kg
- d) 60kg

(xxiii) MC blood transfusion reaction is:

- a) Febrile non-hemolytic transfusion reaction
- b) Hemolysis
- c) Transmission of infections
- d) Electrolyte imbalance

(xxiv) Which of the following is the least likely complication of massive blood transfusion?

- a) Hyperkalemia
- b) Citrate toxicity
- c) Hypothermia
- d) Metabolic acidosis

(xxv) True about blood transfusions:

- a) Antigen 'D' determines Rh positivity
- b) Febrile reaction is due to HLA antigens
- c) Anti-d is naturally occurring antibody
- d) Cryoprecipitate contains all coagulation factors

(xxvi) Massive blood transfusion is defined as:

- a) 350 ml in 5 min
- b) 500 ml in 5 min
- c) 1 litre in 5 min
- d) Whole blood volume

(xxvii) Massive transfusion in previous healthy adult male can cause hemorrhage due to:

- a) Increased t-PA
- b) Dilutional thrombocytopenia
- c) Vitamin K deficiency
- d) Decreased Fibrinogen

(xxviii) Donor Samples must be stored in transfusion service for what period of time after Transfusion?

- a) 2 weeks
- b) 3 days
- c) 7 days
- d) 1 month

(xxix) Which parts of the blood can be transfused?

- a) Whole blood
- b) Platelets
- c) Red blood cells
- d) All of these

(xxx) To Check Compatibility reaction, Patient Serum and donor cells is used in which type of Cross Match?

- a) Major Cross Match
- b) Minor Cross match
- c) Both Major Cross Match and Minor Cross match
- d) None of these

(xxxii) The lower limit of Hb in female blood donor is:

- a) 10 gm/dl
- b) 12 gm/dl
- c) 13 gm/dl
- d) 14 gm/dl

(xxxii) Clotting time has normal value of:

- a) 2 to 8 min
- b) 3 to 6 min
- c) 4 to 5 min
- d) 6 to 8 min

(xxxiii) In Blood, lack of intrinsic factors causes:

- a) Sickle cell anemia
- b) Pernicious anemia
- c) Target cell anemia
- d) Iron deficiency anemia

(xxxiv) Mismatched blood transfusion in anesthetic patient present is:

- a) Hyperthermia and hypertension
- b) Hypotension and bleeding from site of wound
- c) Bradycardia and hypertension
- d) Tachycardia and hypertension

(xxxv) Which of the following not testing as a transfusion related infection in blood bank?

- a) Hepatitis A
- b) Malaria
- c) AIDS
- d) HIV

(xxxvi) What are the common risks of donating blood?

- a) Contract common viruses
- b) Bacterial infection
- c) Low blood pressure
- d) None of these

(xxxvii) Most fetal incompatibility Causing?

- a) Iron deficiency Anemia
- b) Macrocytic anemia
- c) Leukemia
- d) Hemolytic Disease of new born

(xxxviii) A single system on which all scientists all over the world agree for units of measurement is called

- a) SI units
- b) International System of Units
- c) Both SI units and International System of Units
- d) universal system

(xxxix) How are specimens transported to the laboratory:

- a) Ensure all container lids are tightly secured before packaging
- b) Ensure specimens are labeled according to CLS protocol
- c) Always transport the specimen transport box in an upright position
- d) All of these

(xl) Which of the following type(s) of Personal Protective Equipment (PPE) is frequently used?

- a) Safety glasses
- b) Lab Coats
- c) Gloves
- d) All of these

(xli) Laboratory waste:

- a) Laboratory equipment used to collect or test specimens, cultures or other material which may contain infectious pathogens.
- b) Disposable plastics such as pipettes, pipette tips, culture plates, micro plates, test tubes etc which has been used to test sample material
- c) All of these
- d) None of these

(xlii) The laboratory must keep a record of all results and it should contain:

- a) Patient's identification
- b) Type of the specimen
- c) Type of tests done
- d) All of these

(xliii) Sequential processes in pre-examination, examination and post-examination clinical laboratory activities is called

- a) Flow chart
- b) Path of workflow
- c) Organizational chart
- d) Normative document

(xliv) The process implemented to protect laboratory workers, visitors, the public and environment is called

- a) Test
- b) Quality control
- c) Safety
- d) None of these

(xlv) Modernized metric system, from the French name, le Systeme International d'Unités is called

- a) SI unit
- b) Conventional unit
- c) All of these
- d) None of these

(xlvi) Those units we use for speed, volume, and other quantities are known as

- a) U.S. Conventional units
- b) SI units
- c) All of these
- d) None of these

(xlvi) A well-organized laboratory can provide:

- a) Reliable and timely results for the diagnosis of diseases.
- b) Well trained qualified staff
- c) All of these
- d) None of these

(xlviii) O Negative is Universal?

- a) Donor
- b) Recipient
- c) Donor as well as Recipient
- d) All of these

(xlix) Fresh Frozen Plasma store for –

- a) 5 Years at -70°C
- b) 1 Year at -4°C
- c) 24 hours at -20°C
- d) 71 hours at Room Temperature

(l) Blood containing neither antigen A nor B is which of the following Group?

- a) A
- b) B
- c) AB
- d) O

(li) Expert suggest the following tactics for blood conservation:

- a) Iron therapy
- b) Reduced transfusion trigger
- c) Clotting medications
- d) All of these

(lii) Is bleeding after a surgery normal?

- a) Minor bleeding is common from the cut.
- b) No, it means surgery was not performed properly
- c) Yes, too much bleed is a normal phenomenon.
- d) Bleeding is normal after surgery.

(liii) What causes blood loss during surgery?

- a) Anticoagulant excess
- b) Structural defects
- c) All of these
- d) None of these

(liv) How much blood loss is normal during surgery?

- a) Average estimated blood loss is 970 mL
- b) Average estimated blood loss is 975 mL
- c) Average estimated blood loss is 980 mL
- d) Average estimated blood loss is 985 mL

(lv) What type of bleeding is most serious?

- a) Arterial bleeding
- b) Capillary bleeding
- c) Venous bleeding
- d) None of these

(lvi) What type of bleeding is bright red and spurts out?

- a) Venous bleeding
- b) Arterial bleeding
- c) Capillary bleeding
- d) None of these

(lvii) Which fruit is best for blood increase?

- a) Prunes and apples
- b) Mango
- c) Cherry
- d) Carrot

(lviii) What is the self life of blood?

- a) 40 days
- b) 41 days
- c) 42 days
- d) 43 days

(lix) Cell salvage:

- a) A process by which blood from the surgical field is collected, filtered, and washed to produce autologous blood for transfusion back to the patient.
- b) The process where collected blood involves filtering and washing to remove contaminants.
- c) All of these
- d) None of these

(lx) Signs of internal bleeding:

- a) Shortness of breath, chest pain
- b) Abdominal pain, bruising, dizziness
- c) Nausea, vomiting, blood in urine
- d) All of these

