



TECHNICAL UNIVERSITY OF MOMBASA
FACULTY OF APPLIED AND HEALTH SCIENCES

DEPARTMENT OF MEDICAL SCIENCES

UNIVERSITY EXAMINATION FOR:

BMLS PT

AML 4306: BLOOD TRANSFUSION 1

END OF SEMESTER EXAMINATION

SERIES: AUGUST 2019

TIME: 2 HOURS

DATE: Pick Date Aug 2019

Instructions to Candidates

You should have the following for this examination

-Answer Booklet, examination pass and student ID

This paper consists of **TWO** Section(s). Attempt **ALL** questions.

Circle the correct answer in section A.

Section A 30 marks

Q1 Plasma components include:

- a) RBCs
- b) WBCs
- c) Platelets
- d) Globulins
- e) Howell jolly bodies

Q2 The blood components used for the treatment of platelet deficiency is

- a) Packed blood
- b) Plasma
- c) White blood cells
- d) Red blood cells
- e) Whole blood

Q3 The reason why whole blood is now rarely used for transfusion is

- a) It is too thick for transfusion
- b) Only few pints can be used for transfusion
- c) It may not be indicated since the case may not be anemia.
- d) Whole blood contains plasma
- e) To avoid unnecessary volume

Q4 Cross-match for transfusion means

- a) Compatibility test
- b) To check whether the donor is male or female
- c) To check whether the two types of bloods come from the same origin
- d) To compare donor and recipients sera
- e) None of the above

Q5 The benefits of blood product transfusion can be optimized by;

- a) Separating all the blood component that is needed at that particular time
- b) Transfusing whole blood
- c) Transfusing Plasma and platelets
- d) Transfusing plasma and serum
- e) Transfusing commercial products

Q6 The ideal condition for storing packed red blood cells is

- a) Room temperature
- b) Minus seventy degrees
- c) Refrigeration.
- d) 20 degrees
- e) 100 degrees

Q7 The common anticoagulant used in blood transfusion packs is

- a) Heparin
- b) Citrate phosphate dextrose
- c) EDTA
- d) Iodine
- e) None of the above

Q8 Pre-storage blood removal of leukocytes is important because

- a) It reduces the risk of infection
- b) It reduces the incidence of allo-immunisation to leukocytes

- c) It makes blood flow in veins easy
- d) It increases shelf-life
- e) It reduces storage time

Q9 RBC are irradiated before transfusion to reduce the risk of:

- a) Graft-versus-host reaction
- b) Transfusion reaction
- c) Autoimmune reaction
- d) Autoimmunity
- e) None of the above

Q10 Patients with recurrent severe allergic reaction are transfused with:

- a) Plasma only
- b) Serum only
- c) Washed red blood cells only
- d) Whole blood
- e) None of the above

Q11 Irradiated RBCs have a shelf-life of

- a) 14 days
- b) One month
- c) Two weeks
- d) 28 days
- e) 2 days

Q12 Platelet transfusion is indicated in patients with

- a) Bleeding disorders
- b) Anaemia
- c) Tissue graft
- d) Bone marrow transplant
- e) None of the above

Q13 Platelets have ABO antigens but may be transfused to ABO incompatible patient because:

- a) They do not cause any transfusion reaction
- b) The transfusion reaction caused is clinically insignificant
- c) The reaction caused is life threatening
- d) The physician takes the blame
- e) None of the above

Q14 Group O platelets should be given to blood group:

- a) AB
- b) B

- c) A
- d) O
- e) AB-Rh-ve

Q15 To prevent Rh incompatibility reaction an Rh –ve mother is transfused with

- a) Anti-D immunoglobulin.
- b) Rh +ve blood
- c) Rh-blood
- d) Blood group O
- e) None of the above

Q16 The storage temperature for platelets is

- a) 20-24 degrees celcius
- b) -100 degrees celcius
- c) 4 degrees celcius
- d) 0 degrees celcius
- e) 100 degrees celcius

Q17 Blood clotting factors are maintained by

- a) Making a buffy coat
- b) Cross-match
- c) Fresh freezing
- d) Storing at 0 degrees
- e) Storing at room temperature

Q18 Most of the factor VIII and Willebrand factor are found in

- a) Serum
- b) Whole blood
- c) Plasma
- d) Cryoprecipitate
- e) None of the above

Q19 Cryoprecipitate is used for the treatment of:

- a) Sickle cell
- b) Anemia
- c) Immune deficiency
- d) Hemophilia
- e) Goitor

Q20 The two main sources of granulocytes are

- a) Buffy-coats and apheresis
- b) Plasma and serum

- c) Platelets and whole blood
- d) Filtered leukocytes and whole blood
- e) None of the above

Q21 Clotting factors are absent in

- a) Serum
- b) Plasma
- c) Cryoprecipitate
- d) Whole blood
- e) Human albumin solution

Q22 What is meant by cord blood?

- a) It is blood removed from the fridge
- b) It is blood that remains in the placenta and umbilical cord
- c) It is blood contained in the tube of giving set
- d) It is contaminated blood
- e) It is donated blood

Q23 Cord blood is important in clinical medicine in that its used for the treatment of

- a) Immunocompromised patients
- b) Hemophilia
- c) Sickle cell anemia
- d) Megaloblastic anemia
- e) Thalassemia

Q24 The difference between Cord blood and venous blood is

- a) Cord blood does not have antibodies
- b) Venous blood has stem cells
- c) Cord blood has stem cells
- d) Cord blood cannot be cross-matched
- e) Cord blood is not mature

Q25 Stem cells should be differentiated from :

- a) Granulocytes
- b) Sickle cells
- c) Platelets
- d) Embryonic cells
- e) None of the above

Q26 The main Immunoglobulin associated with Hemolytic disease of the newborn is

- a) IgM
- b) IgE

- c) IgD
- d) IgA
- e) IgG

Q27 The main feature of the HDNB venous blood is

- a) Immature Red blood cells
- b) Immuno-reactive antibodies
- c) Bilirubin
- d) Bilinogen
- e) Mature red blood cells

Q28 The donor for A Rh –ve is

- a) A Rh-VE
- b) B Rh-VE
- c) B Rh+ve
- d) O Rh-ve
- e) O Rh+VE

Q29 The donor for B Rh +ve is

- a) O Rh –ve
- b) A Rh-ve
- c) B Rh-ve
- d) AB Rh+ve.
- e) O Rh+ve

Q30 The donor for B Rh-ve is

- a) O Rh-ve
- b) A Rh-ve
- c) A Rh +ve
- d) O Rh+ve
- e) AB Rh-ve

Section B 40 marks

Q31 Discuss the development of Hemolytic disease of the newborn and method of prevention and control

20 marks

Q32 Describe the procedure for Cross-match and its importance in Transfusion Science 20 marks