Technical University of Mombasa

Faculty of Applied and Health Sciences

DEPARTMENT OF MEDICAL SCIENCES

UNIVERSITY EXAMINATION FOR THE DEGREE OF BACHELOR OF MEDICAL LABORATORY SCIENCES

BMLS 12S (Mid entry)

AML 4420: BLOOD TRANSFUSION II

SEMESTER EXAMINATION

OCTOBER 2013 SERIES 2 HOURS

Instructions to candidates:

This paper consist of **TWO** sections A and **B**

Section A –Contains MCQS, any wrong response will be penalised. Answer **ALL** questions in **Section B**.

SECTION A – MCQs – (30marks)

1. HLA antigen resting many be used for all except the following:-
   a) Paternity testing
   b) Marching platelets
   c) Matching organs for dozation
   d) Classification of leukemia
   e) Transfusion

2. ABO blood groups were discovered by:-
   a) Mendelson
   b) Morgan
   c) Wiener
   d) Landstainer
   e) Coombs

3. In extreme emergency if the ABO a Rh type are unknown which of the following should be given
   a) Grouping O, Rh positive blood
   b) Group AB, Rh negative blood
   c) Group O, Rh negative blood
   d) Any blood types is Ok
   e) A and B

4. Which of the following contains all the possible phenoltypen that could be the result of parents who are type O a type A
   a) Type A or type O only
   b) Type A only
   c) Type O only
   d) All possible blood types
   e) Type AB only

5. IgM antibodies produced against red blood cells generally
   a) Cause severe hemolytic reactions
   b) Can be identified my the AHG test
   c) React best at room temperature
   d) React best at 37˚C
   e) React best at 4˚C

6. A refrigeration used to store whole blood most be able to maintain a temperature in the ranges of :-
   a) 0-4˚C
   b) 2-4˚C
   c) 2-8˚C
   d) 1-6˚C
   e) 37˚C

7. The Rh nomechatune which uses the letters DCE is found in which of the following genetic models
   a) Landsteiner
   b) Wiener
   c) Fisher-Race
   d) Race
   e) Coombs

8. A false-negative reaction while performing the DAT technique may be the result of
   a) Red cell /AHG tube is over centrifugal
   b) Blood collected in tube containing silicon gel
   c) Saline used for wash stored in glass or metal container
   d) AHG addition delayed for 40 or more minutes
   e) A and B

9. To detect the presence of blocking antibodies fixed on the red cells of a newborn infant
   a) Use the indirect antigrabulin test
   b) Use the direct antiglobulin test
   c) Use antibody screening test
   d) Use elution test
   e) Use neutralization test

10. Gamma irradiation of cellular blood components is required in which of the following situations
    a) Prevent port transfusion purpura
    b) Prevent Graft versen hurt disease
    c) Prevent rejection of graft
    d) Prevent edema
    e) Prevent inflammation

11. Which of the following would not be detected by means of a major crossmatch.
    a) Misgrouping a group O patient as group A
    b) Misgrouping a group A patient as group O
    c) Misgrouping a group A down as group O
    d) Misgrouping a group B donor as a group O
    e) None of the above

12. Unexpected positive reactions encountered during forward ABO typing may be due to:-
    a) A or B subgroups
    b) Antigen depression due to leukemia
    c) Hypogammaglobulinemin
    d) Acquired B antigen due to intertinal cancer
    e) A and B

13. Which of the following blodd components will provide the best source of fibrirogen for a patient with hypodibrigenmia
    a) Wholeblood
    b) Fresh frozen plasma
    c) Plastelets
    d) Cryoprecipitate
    e) Reds cells

14. The accepted blood interval between blood donation is:-
    a) 12 weeks
    b) 8 weeks
    c) 6 weeks
    d) 1 year
    e) 1 ½ years

15. Dr antigens are found in which of the following systems
    a) Kell system
    b) HLA system
    c) Duffy system
    d) ABO system
    e) Rh system

16. Rh antibodies include:-
    a) IgM
    b) IgG
    c) IgE
    d) IgA
    e) IgD

17. Patients with antibody to the following antigen and immune to Hepatitis B
    a) Core antigen
    b) Surface antigen
    c) E antigen
    d) Delta antigen
    e) A and B

18. Which of the following statements best describe Rh antibodies
    a) Naturally occurring IgM
    b) Immune IgG
    c) Immune IgM
    d) Cold IgG

19. Which of the following is the proper storage temperature for frozen red cells
    a) -80˚C
    b) -20˚C
    c) -12˚C
    d) 4˚C
    e) 37˚C

20. Which of the following is the proper storage temperature for whole blood
    a) -20˚C
    b) -12˚C
    c) 12˚C
    d) 4˚C
    e) 20˚C

21. Pre-transfusion testing should include all the following except
    a) Patient a donor ABO & Rh typing
    b) Screening patient & donor for antibodies
    c) Screening patient a donor cells for unsuspected
    d) Mixing patient serum with donor cells
    e) Rh typing

22. The use of the direct antiglobulin test is indicated in all of the following except
    a) Transfusion reaction
    b) Autoimmune hemolytic anamin
    c) Hemolytic disease of the newborn
    d) Refection of all antibodies in serum
    e) B & C

23. Which of the following best describes a minor crossmatch
    a) Reaction of donor serum with recipient cells
    b) Reaction of recipient cells with AHG
    c) Reaction of donor cells with AHG
    d) Reaction of donor cells with recipient semen
    e) None of the above

24. All of the following are benefits of antilogous donation except
    a) Reduces exposure to infectious agents
    b) Can be given quickly in an emergency
    c) Reduces demand for homologous blood
    d) Eliminates sensitization to cellular blood components
    e) A and C

25. Rh immune globulin therapy in postpartum women provider
    a) Longterm protection
    b) Antibody blocking
    c) Passive protection
    d) Active protection
    e) A and B

26. Most common bacteria pathogens in transfused blood include
    a) Yersiin entholoritica
    b) Vibrio chosera
    c) TB
    d) Echerichia coli
    e) B and C

27. The appropriate age for donation of blood is
    a) 17 a above
    b) 17 – 50 years
    c) 17 – 65 years
    d) 20 a above
    e) 10 – 60 years

28. Donor should be restricted from donating blood due to the following except
    a) HIV positive
    b) 16 years of age
    c) Pregnant
    d) 17 – 60 years of age
    e) Receive dura matter

29. Complete antibody include
    a) IgM
    b) IgG
    c) IgD
    d) IgE
    e) IgM & IgD

30. Incomplete antibody include
    a) IgG
    b) IgD
    c) IgE
    d) IgG
    e) IgA

SECTION B

1. Discuss cross match **(20marks)**
2. Describe coombs test **(20marks)**