

# BABA FARID UNIVERSITY OF HEALTH SCIENCES, FARIDKOT

## TECHNICAL ASSISTANT (BLOOD BANK) (UNDER BFUHS)

QUESTION BOOKLET NO

IMPRESSION OF THE CANDIDATE

OMR ANSWER SHEET NO

ROLL NO:

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FULL SIGNATURE OF THE CANDIDATE

FULL SIGNATURE OF INVIGILATOR

FULL SIGNATURE OF THE OBSERVER

**Time Allowed: 1:00 Hour (11:00 AM to 12:00 Noon)**

**Maximum Marks: 50**

1. Use **BLACK FINE TIP BALL PEN** only. Use of pencil is not allowed.
2. Write your Roll number on the OMR answer-sheet and also on the question-booklet only in the space provided for the purpose and at no other place in the question booklets and Answer-sheet
3. Enter the Question Booklet Set and Number on the OMR Answer-sheet and also darken the corresponding bubbles with **BLACK FINE TIP BALL PEN**.
4. Do not put any marks anywhere in the Question booklet /on the OMR Answer-sheet.
5. **There are 50 objective type questions in all of 1 Mark each.** Before attempting the questions, check that the Question-booklet is complete. In case any question/part of question or page is missing, inform the Centre Superintendent within 5 minutes of the start of the examination. After that no claim will be entertained.
6. **Each question is followed by four alternative responses listed as A), B), C) and D) out of which only one is correct / most correct. In case, all the ovals are left blank, there will be deduction of marks @ 0.25 mark for each such unattempted question. Fifth oval 'E' (introduced for security purpose) is to be darkened in case you do not want to attempt the question to avoid negative marking.**
7. To open the question booklet, remove the seal gently when asked to do so. Handover the OMR Answer-sheet to the officer on duty on the completion of the time before you leave the examination hall.
8. **The candidates are permitted to carry his/her question booklet after completion of the examination but OMR Sheets are compulsory required to be deposited with the invigilator.**
9. A candidate who create disturbance of any kind or changes his/her seat or is found in possession of any paper possibility of any assistance to him/her or unfair means will be expelled from the examination by the Centre superintendent/Observer, whose decision shall be final. ("Expulsion" for this purpose would mean cancellation of the entire examination of the candidate).
10. **THE CANDIDATES ARE NOT PERMITTED TO CARRY ANY TELECOMMUNICATION EQUIPMENT SUCH AS WATCH, CELLULAR PHONE, WIRELESS SET, SCANNER ETC. INSIDE THE EXAMINATION HALL.**
11. For rough work, use only the blank space of the Question booklet.
12. The candidates will not be allowed to leave the examination hall during the examination.
13. Borrowing any material is not allowed.
14. The answer-sheet is designed for Computer evaluation. If the instructions are not followed properly, the candidate alone shall be responsible for the resultant loss.
15. Smoking/Refreshment shall not be allowed in the Entrance Test Centre/Hall.
16. Male candidates shall affix their Left Thumb Impression (LTI) while Female candidates shall affix Right Thumb Impression (RTI) at the prescribed place on the OMR answer sheet, Question Booklet and attendance sheet. The Centre superintendent shall also obtain and retain it for record.
17. The candidate must fill both the question booklet number and OMR answer sheet number on the attendance sheet.
18. No candidate shall be allowed to leave the centre before **12:00 Noon**.



- 1) The immunodominant sugar responsible for blood group A specificity is
  - a) L-fucose
  - b) N -Acetyl-D- galactosamine
  - c) D-galactose
  - d) Uridine diphosphate -N-acetyl- D - Galactose
- 2) What are the storage time and storage temperature for platelet concentrates.
  - a) 5 days at 1°C to 6°C
  - b) 5 days at -20°C to -40°C
  - c) 5 days at 20°C to 24°C
  - d) 10 days at 20°C to 24°C
- 3) Additive solutions are approved for storage of red blood cells for how many days.
  - a) 21
  - b) 42
  - c) 35
  - d) 7
- 4) What is the temperature for incubation during crossmatch by gel technology.
  - a) 24°C
  - b) 22°C
  - c) 37°C
  - d) 40°C
- 5) ABO Blood group is located on which chromosome
  - a) Chromosome 9
  - b) Chromosome 21
  - c) Chromosome 6
  - d) Chromosome 22
- 6) Genotype of Bombay blood group is
  - a) Hh
  - b) hh
  - c) HH
  - d) HO
- 7) Antibodies present in AB blood group
  - a) Anti A
  - b) Anti B
  - c) Both Anti A and Anti B
  - d) None of the above
- 8) All are Rh Antigens except
  - a) D
  - b) C
  - c) E
  - d) F
- 9) Biochemically speaking, what type of molecules are Rh antigens.
  - a) Glycophorins
  - b) Simple sugars
  - c) Proteins
  - d) Lipids
- 10) Fully Automation of blood grouping is based on which principle
  - a) Column Agglutination technology
  - b) SPRCA
  - c) Conventional Tube technique
  - d) Slide testing
- 11) AHF concentrates are used to treat
  - a) Thrombocytopenia
  - b) Hemophilia A
  - c) Hemophilia B
  - d) Anemia
- 12) Platelet concentrates prepared by apheresis should contain how many platelets.
  - a)  $5.5 \times 10^{10}$
  - b)  $5.5 \times 10^9$
  - c)  $3 \times 10^{11}$
  - d)  $6 \times 10^8$
- 13) Specific gravity of PRBCS is
  - a) 1.09
  - b) 1.03
  - c) 1.04
  - d) 1.05
- 14) What should be the frequency of quality control of blood components to be done per month
  - a) 5%
  - b) 10%
  - c) 1%
  - d) 20%

- 15) Quality control of Antisera includes all parameters except
- Specificity
  - Avidity
  - Reactivity
  - pH
- 16) Lectin used in Anti A1 Antisera
- Dolichos Biflorus
  - Ulex europaeus
  - BandeiraeaSimplicifolia
  - Fomes formentarius
- 17) Select the appropriate product for a Bone Marrow transplant patient with anemia.
- RBCs
  - Irradiated RBCs
  - Leucoreduced RBCs
  - Washed RBCs
- 18) What Blood component is most frequently involved with Transfusion Associated Sepsis.
- Plasma
  - Packed Red Blood Cells
  - Platelets
  - Whole Blood
- 19) The only presenting sign most often accompanied a delayed hemolytic Transfusion reaction is :
- Renal failure
  - Unexplained Decrease in hemoglobin
  - Active Bleeding
  - Hives
- 20) Non Immune Hemolysis can be caused during transfusion by
- Use of small bore needle
  - Use of an infusion pump
  - Improper use of blood warmer
  - All of Above
- 21) Which of the following is characteristics of Iron overload
- Delayed nonimmune complication occurs
  - Chelating reagents are used
  - Multiorgan damage may occur
  - All of above
- 22) After how many days of Blood donation,one can donate plateletpheresis
- 28 days
  - 7 days
  - 3 days
  - 20 days
- 23) The most common adverse effect of plateletpheresis is
- Allergic reaction
  - Hepatitis
  - Hemolysis
  - Citrate reaction
- 24) The anticoagulant added to blood as it is removed from a donor or a patient during an apheresis procedure acts by
- Binding Calcium
  - Increasing intracellular potassium
  - Binding to Antithrombin III
  - Inactivating factor V
- 25) Peripheral Blood Stem Cells are
- Responsible for phagocytosis of bacteria
  - Removed during erythrocytapheresis
  - Pluripotential hematopoietic precursors that circulate in the peripheral blood
  - Lymphocytes involved with the immune response
- 26) Kernicterus is caused by the effects of
- Anemia
  - Unconjugated bilirubin
  - Antibody specificity
  - Antibody titre
- 27) Blood for intrauterine transfusion (IUT) should be
- Irradiated, Leucocyte reduced, more than 7 days old, HBs negative
  - Irradiated, Leucocyte reduced, less than 7 days old, HBs positive
  - Irradiated, Leucocyte reduced, less than 7 days old, HBs negative
  - Irradiated, Leucocyte reduced, more than 7 days old, HBs positive

- 28) The blood group involved in the autoantibody specificity in Paroxysmal Cold Hemoglobinuria is
- P
  - ABO
  - Rh
  - Lewis
- 29) Cold AIHA is sometimes associated with infection by
- Staphylococcus aureus
  - Mycoplasma pneumoniae
  - Escherichia Coli
  - Group A Streptococcus
- 30) Blood Donor Deferral criteria for major surgery is
- 3 months
  - 6 months
  - 1 year
  - 2 year
- 31) All of the below are permanent Blood Donor deferral criteria except
- Carcinoma
  - Heart Disease
  - History of Blood Transfusion in last 6 months
  - History of hepatitis C infection
- 32) H substance persist unchanged in
- A group
  - B group
  - AB group
  - O group
- 33) JK stands for the Blood group
- Kell
  - Duffy
  - Kidd
  - Lutheran
- 34) Rh hr system of antigens was introduced by
- Weiner
  - Landsteiner
  - Harvey
  - Jenner
- 35) The anticoagulant used in Blood bag is
- CPDA
  - EDTA
  - Heparin
  - None
- 36) Colouring reagent used in Coomb's Sera
- Sudan Green
  - Malachite Green
  - Butter yellow
  - None
- 37) The virus which resides entirely in cytoplasm of WBCs
- EBV
  - CMV
  - HBV
  - CJD-virus
- 38) The reagent used to destroy IgM reactivity
- Papain
  - Bromelin
  - 2 Mercaptoethanol
  - Fucosyl transferase
- 39) A common Auto antibody type
- Anti P
  - Anti I
  - Anti i
  - Anti Le
- 40) Most Blood group system are inherited as
- Sex Linked Dominant
  - Sex Linked Recessive
  - Autosomal Recessive
  - Autosomal Co-dominant
- 41) A newborn demonstrates petechiae, echymosis and mucosal bleeding. The Preferred Blood component for this infant would be
- PRBCS
  - Fresh Frozen Plasma
  - Platelets
  - Cryoprecipitate
- 42) Which of the following is most likely involved in hemolytic Disease of Newborn
- Le
  - P
  - M
  - Kell

43) A 29 year old male is hemorrhaging severely. He is AB Rh Negative. Of the following PRBCS available in Blood centre, which would be preferred for crossmatch.

- a) A, Rh negative
- b) AB, Rh Positive
- c) A, Rh positive
- d) O Rh negative

44) Which of the following tests is most commonly used to detect antibodies attached to a patient's red blood cells in vivo.

- a) Direct Antiglobulin
- b) Complement fixation
- c) Indirect Antiglobulin
- d) Immunofluorescence

45) The process of separation of Antibody from its Antigen is known as

- a) Diffusion
- b) Adsorption
- c) Neutralization
- d) Elution

46) A patient has become refractory to platelet transfusion. Which of the following is the most probable cause,

- a) Transfusion of Rh incompatible Platelets
- b) Decreased Ph of the platelets
- c) Development of an alloantibody with Anti D specificity
- d) Development of Antibodies to HLA antigens

47) Leucocyte reduced PRBCS would most likely be indicated for patients with history of

- a) Febrile Transfusion reaction
- b) Iron deficiency Anaemia
- c) Haemophilia A
- d) Allergic reaction

48) Which of the following group is at risk of developing graft vs Host disease

- a) Full term infants
- b) Patients with history of febrile transfusion reactions
- c) Patients with a positive Direct antiglobulin test
- d) Recipients Blood donated by first degree relative

49) The most important step in safe administration of blood is to

- a) Perform donor antibody screen
- b) Get an Accurate patient history
- c) Exclude disqualified donors
- d) Accurately identify Donor unit and Recipient

50) Size of Red blood cells is

- a) 10  $\mu\text{m}$
- b) 7  $\mu\text{m}$
- c) 8  $\mu\text{m}$
- d) 2  $\mu\text{m}$

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