

**BACHELOR OF MEDICAL LABORATORY  
TECHNOLOGY  
FIFTH SEMESTER  
PATHOLOGY-V  
BMLT – 505 [SPECIAL REPEAT]  
(USE OMR SHEET FOR OBJECTIVE PART)**

Duration: 3 hrs.

Full Marks: 70

Time: 30 min.

( Objective )

Marks: 20

*Choose the correct answer from the following:*

*1×20=20*

- Where was the first blood bank established in India?
  - Bombay
  - Calcutta
  - Delhi
  - Madras
- Who performed the first successful man to man blood transfusion?
  - Norman Bethune
  - James Blundell
  - Karl Landsteiner
  - Reuben Ottenberg
- What should be the minimum body weight for the donation of 450 ml of blood?
  - 40 kg
  - 45 kg
  - 50 kg
  - 55 kg
- Which ABO blood group has the lowest percentage of H antigen?
  - A<sub>1</sub>
  - B
  - A<sub>1</sub>B
  - O
- For how long blood can be stored in a blood bag containing CPDA?
  - 21 days
  - 25 days
  - 31 days
  - 35 days
- Anti-human globulin is not used in which of the following test.
  - Direct Coomb's test
  - Indirect Coomb's test
  - D<sup>u</sup> test
  - Compatibility test
- Methylene Blue dye is used for giving the colour of which anti-sera
  - Anti- A
  - Anti-B
  - Anti-AB
  - Anti-D
- For what period of time a person who recently had a tattoo cannot donate blood.
  - 1 month
  - 3 months
  - 6 months
  - 1 year
- Which of the following subgroup of A is clinically significant?
  - A<sub>x</sub>
  - A<sub>m</sub>
  - A<sub>2</sub>
  - A<sub>3</sub>

10. Which of the following is not considered while selecting a donor.
  - a. Hemoglobin
  - b. Weight
  - c. Height
  - d. Blood pressure
11. Which of the following is not an antigen of Rh blood group system?
  - a. C
  - b. D
  - c. E
  - d. F
12. In major cross-matching which of the following are cross matched against each other?
  - a. Donor red cell with patient serum
  - b. Donor plasma with patient serum
  - c. Donor serum with patient red cell
  - d. Donor plasma with patient red cell
13. Fresh Frozen Plasma are stored in what temperature.
  - a. 4°C
  - b. -4°C
  - c. -30°C
  - d. -70°C
14. For how long platelet concentrate can be stored?
  - a. 5 days
  - b. 10 days
  - c. 30 days
  - d. 90 days
15. What is detected in Coombs test?
  - a. Antigen
  - b. Antibody
  - c. Incomplete antigens
  - d. Incomplete antibodies
16. If a person had a minor surgery, for what duration of time is he not allowed to donate blood.
  - a. 1 month
  - b. 3 months
  - c. 6 months
  - d. 1 year
17. The name of which of the following blood group system is taken from the patient?
  - a. Lutheran
  - b. Lewis
  - c. Kidd
  - d. Kell
18. Which of the following is an antigen of Kidd blood group system?
  - a. J<sup>a</sup>
  - b. K<sup>a</sup>
  - c. JK<sup>a</sup>
  - d. KJ<sup>a</sup>
19. Which of the following is a transfusion transmitted disease?
  - a. Hepatitis C
  - b. Malaria
  - c. Syphilis
  - d. All the above
20. Which of the following is not an antigen of Kell blood group system?
  - a. K
  - b. k
  - c. K<sup>a</sup>
  - d. Kp<sup>a</sup>

**( Descriptive )**

Time : 2 hrs. 30 min.

Marks : 50

**[ Answer question no.1 & any four (4) from the rest ]**

1. Write short essay on Haemolytic Disease of the Newborn (HDN). 10
2. Explain Rh blood group system including D<sup>u</sup> phenotype and Rh null syndrome in detail. 10
3. Write a short note on adverse donor reaction and their management. 5+5=10
4. Describe the criteria of physical examination and explain about the immunization that are to be considered while selecting a donor. 5+5=10
5. Discuss briefly about the ABO system including their subgroups. Explain Bombay blood group system. 7+3=10
6. Write a brief note on the history of blood transfusion. 10
7. What are the blood components that can be separated from a single unit of blood bag? Explain the separation of fresh frozen plasma and platelet concentrate. 2+4+4=10
8. Explain the genotype and phenotype of the ABO blood group system. Determine the blood group of a child whose father has B blood group and his/her mother has AB blood group. 3+7=10

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