

**RAN-2103000205021056**
**T.Y.B.Sc. (Sem. - V) Examination October - 2025**
**Bioscience (Microbiology) : BS - 506: Haematology and Blood Banking**
**Time: 2 Hours ]**
**[ Total Marks: 50**
**સૂચના : / Instructions**

- (1) ઉપરોક્ત દર્શાવેલ વિગતો ઉત્તરવહી પર અવશ્ય લખવી.  
Fill up strictly the above details on your answer book
- (2) Figures to the right indicate full marks
- (3) Draw neat & clean diagram wherever necessary.

**Seat No.:**

|                      |                      |                      |                      |                      |                      |
|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> |
|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|

Student's Signature

**Set A**
**Q. 1 Multiple choice questions:**
**08**

1. Which of the following are not myeloid cells?
  - a. Macrophages
  - b. Monocytes
  - c. Neutrophils
  - d. T cells
2. The antigens for ABO and Rh blood groups are present on .
  - a. Plasma
  - b. white blood cells
  - c. red blood cells
  - d. Platelets
3. Which of the following is not an inherited hemoglobinopathies?
  - a. SCA
  - b. Thalassaemia major
  - c. Thalassaemia minor
  - d. Malaria
4. Which of the following is a disorder of the WBC?
  - a. Leukaemia
  - b. Lymphomas
  - c. Multiple myelomas
  - d. All
5. The process of transfer of human blood known as .
  - a. Transfusion
  - b. Processing
  - c. Transporting
  - d. Transferring
6. Which of the following is the most common complication of transfusion?
  - a. Acute haemolysis
  - b. Acute lung injury
  - c. Circulatory overload
  - d. Fever
7. Which of the following is a natural blood anticoagulant?
  - a. EDTA
  - b. Sodium Citrate
  - c. Heparin
  - d. Calcium Oxalate
8. Which of the following is a transfusion complication?
  - a. Fever
  - b. Infection
  - c. Allergic reaction
  - d. All

**Q. 2 [A] Answer as directed:**
**04**

1. Explain: Hemoglobinopathies
2. Give the full form of CPDA, EDTA.
3. State any two blood components used for transfusion
4. Explain: Autologous donor

**[B] Write short note on (Any Two) 10**

1. Nutritional anaemia.
2. Packed cell volume.
3. Tile method for ABO grouping.

**Q. 3 Answer any two of the following questions. 14**

1. Write a brief account on erythropoiesis.
2. Explain in detail documentation in blood banking.
3. Explain the compatibility testing.

**Q. 4 Define: Haematopoiesis. Write a detailed account on Leucopoiesis. 14**

**OR**

**Q. 4 Answer the following questions. 14**

1. Explain: General history & screening of blood donor.
2. Write a detailed account on Investigation & Prevention of transfusion reaction.

---