RAN-2503230202040004

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PGDMLT (Sem. - II) Examination March - 2025

PGDMLT - 2004 A : Blood banking and Histo-Cytological Techniques

Time: 3 Hours] **[Total Marks: 70**

સૂચના : / Instructions

(1) **નીચે દર્શાવેલ ☛ નિશાનીવાળી વિગતો ઉત્તરવહી પર અવશ્ય લખવી.**
Fill up strictly the details of ☛ signs on your answer book

Name of the Examination:
☛ **PGDMLT (Sem. - II)**

Name of the Subject :
☛ **PGDMLT - 2004 A : Blood banking and Histo-Cytological Techniques**

Subject Code No.: **2503230202040004**

Seat No.:

Student's Signature

(2) All Questions are compulsory.
(3) Draw Diagrams wherever necessary.

Q. 1. Answer in short. (Any 7) **14**

1. Name the detection techniques for Bombay phenotype. Which lectin can be used for detection.
2. Notedown the antigen and phenotype of Duffy blood group system.
3. If mother is A blood group, infant is B blood group, cellular components of which blood group should be selected for transfusion?
4. Define plateletpheresis.
5. Name the preservative solutions used in blood bags for storage.
6. State the importance of blood crossmatch before transfusion.
7. State the principle of PAP staining.
8. Name the knife sharpening techniques for microtomy.

Q. 2. Answer in brief (Any 2) **14**

1. Discuss the process of blood typing to determine a person's blood group.
2. Describe the inheritance of blood group in humans.
3. Describe the characteristics of Bombay Phenotype blood group. How is it different from common ABO blood groups?

Q. 3. **Answer in brief (Any 2)** **14**

1. Explain the process of blood collection for blood banks. Discuss various types of blood bags and additives used during collection process.
2. Short note on laboratory diagnosis of HIV and HbsAg.
3. Explain the process of blood component separation in a blood bank. Discuss the different components and their clinical use.

Q. 4. **Answer in brief (Any 2)** **14**

1. Explain the significance of Rh factor in pregnancy. How can Rh incompatibility lead to complications.
2. How is compatibility tested before blood transfusion. Discuss its role in ensuring safe blood transfusion.
3. Short note on types of transfusion reaction.

Q. 5. **Answer in brief (Any 2)** **14**

1. Discuss steps of tissue processing
2. Short note on FNAC
3. Explain microtome and its types.

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