Enrollment No. _____

Shree Manibhai Virani and Smt. Navalben Virani Science College (Autonomous), Rajkot
Affiliated to Saurashtra University, Rajkot

SEMESTER END EXAMINATION APRIL - 2018

B.Voc. Medical Laboratory and Molecular Diagnostic Technology

MLMDT 4.1 – IMMUNOHAEMATOLOGY & BLOOD BANKING TECHNIQUES

Duration of Exam – 2.30 hrs ***Semester* – IV** ***Max. Marks – 70***

Que. 1 (A) – Answer the following Questions **[20]**

1. Which genes are responsible for Rh antigen on RBC?
2. Define an antigen.
3. Name four blood group systems.
4. What is acid illusion test?
5. What is exchange blood transfusion?
6. Define agglutination reaction.
7. What is full form of TRALI?
8. Describe use of blood collection monitor.
9. Self life of platelet product.
10. Blood bank operation needs license from which department?
11. Importance of air surveillance in blood bank.
12. What is Tachometer?
13. What is apheresis?
14. How is HLA haplotyptes inherited?
15. On which cells are HLA class I haplotypes expressed?
16. Give examples of transfusion transmitted infectious diseases.
17. Full for of QMS.
18. Genes of HLA located on which chromosome?
19. Define quality control criteria for “Whole Blood”.
20. Describe four vital parameters to be check before starting of transfusion.

Que. 2 (A) – Answer the following Questions (Any Three) **[6]**

1. Name of anticoagulants used in blood bank.
2. What is Bombay blood group?
3. Write indications of red cell concentration transfusion.
4. Principle of CAT method.
5. Subtypes of A blood group.
6. What is leukocyte depleted (LD) RCC?

Que. 2 (B) Answer the following Questions (Any Three) **[9]**

1. Method to identify D^U variant.
2. Describe whole blood collection process in blood bank.
3. Describe post blood donation care & advice for blood donors.
4. Describe pre donation counseling.
5. Mandatory records to be maintained in blood donor area.
6. Describe process of blood issue in case of emergency.

Que. 2 (C) Answer the following Questions (Any Two) **[10]**

1. Discuss Forward blood grouping system.
2. Explain the Process for cryoprecipitate preparation.
3. Describe Cross matching.
4. Discuss Haemolytic disease of newborn.
5. Describe categories of BMW as per biomedical waste management rules-2016.

Que. 3 (A) – Answer the following Questions (Any Three) **[6]**

1. Describe principle of direct coomb's test.
2. What is irradiation of blood?
3. Enlist Instruments used in blood component area.
4. What are the gene products of MHC class III?
5. Define HLA antibody.
6. Give storage criteria for whole blood and RCC.

Que. 3 (B) Answer the following Questions (Any Three) **[9]**

1. Calibration of blood bag refrigerator & deep freeze.
2. Donor selection criteria for single donor platelet.
3. Quality control of ABO antisera.
4. Write briefly about MHC II HLA gene products
5. Describe process of blood transportation from blood donation camp to blood bank
6. What is sequence specific priming?

Que. 3 (C) Answer the following Questions (Any Two) **[10]**

1. What is MHC? Discuss its types.
2. Describe adverse donor reactions.
3. Laboratory diagnosis of blood transfusion reactions
4. Describe HDN caused by Rh incompatibility
5. Describe mandatory transfusion transmitted infections detection methods in India