

Write short Notes on:

1. Factors affecting antigen / antibody reaction.
2. Describe Human Platelet Antigen (HPA) system. Discuss various methods of detection of HPA
3. Discuss Iron Metabolism.
4. Describe structure and function of Von Willebrand Factor (VWF).
5. Describe synthesis of ATP and discuss its role in storage of blood.
6. Discuss mechanisms of transfusion induced immunomodulation
7. Immune tolerance.
8. Describe red cell structure in health and disease
9. Cytokines in stored blood components.
10. Enumerate various plasma expanders and discuss their role in management of shock.

Write short Notes on:

1. High Titer Low Avidity (HTLA) antibody.
2. HLA and disease association
3. Platelet cross match.
4. Molecular basis of Bombay Phenotype.
5. Discuss procedure for issue of blood to a neonate with ABO hemolytic disease.
6. Discuss important points to be considered while selecting reagents for pre-transfusion testing.
7. Enzymes used in red cell serology.
8. Issues pertaining to cord blood banking.
9. You are informed by the ward nurse that a patient receiving a red cell transfusion has become acutely hypotensive and distressed. Describe how you would assess the patients, investigate and manage.
10. Donath landsteiner antibody.

Write short Notes on:

1. Discuss blood sparing strategies during surgery.
2. Document development and control in blood transfusion services.
3. Describe molecular epidemiology of HIV-1 and 2 in India
4. NAT testing.
5. Appropriate uses of human albumin and intravenous immunoglobulins
6. Describe the principles of minimizing the risk of bacterial contamination of red cells and platelets
7. What are the reasons for incorrect blood component being transfused?
What measures can be taken to minimize such events?
8. Describe important aspects of collection of whole blood donations in mobile camps in order to ensure a high quality product and to maximize the donor retention.
9. Describe process control with reference to leucodepletion of cellular blood components?
10. Discuss how you would set up Hospital Transfusion Committee (HTC) to implement appropriate use of blood in your hospital.

Write short Notes on:

1. Stealth RBCs
2. Recombinant factor VII a
3. Role of dendritic cells in clinical medicine
4. Proteonics in transfusion medicine
5. Cryopreservation of stem cells
6. Donor Leukocyte Infusion (DLI)
7. Define "Window period" and "residual risk". Critically evaluate the measures which may be taken to reduce the residual risk of transfusion transmitted infections in India.
8. Immunoabsorption technique in Therapeutic Aphaeresis
9. Thrombopoietin
10. Emerging pathogens in transfusion Medicine