

**VINAYAKA MISSION'S RESEARCH FOUNDATION  
(DEEMED TO BE UNIVERSITY), SALEM**

**M.D. DEGREE EXAMINATION - October 2018**

**IMMUNO HAEMATOLOGY AND BLOOD TRANSFUSION**

**PART II - PAPER III : RECENT ADVANCES IN TECHNOLOGY**

Time: Three hours

Maximum : 100 Marks

**Answer ALL questions**

**SECTION - A**

**Write essays on :**

**(1 x 20 = 20)**

1. Discuss in detail about automation in blood banking.

**Write short notes on :**

**(5 x 6 = 30)**

2. Nanotechnology
3. Cascade plasmapheresis
4. CAR-T cell therapy
5. Nucleic acid testing
6. Red cell exchange

**SECTION - B**

**Write essays on :**

**(1 x 20 = 20)**

7. Discuss in detail about pathogen inactivation of blood products.

**Write short notes on :**

**(5 x 6 = 30)**

8. Irradiation of blood components
9. Multicomponent collection
10. Newer emerging TTI
11. Zika virus
12. Soluble transferrin receptors.