

D.M. – CRITICAL CARE MEDICINE**Paper IV – RECENT ADVANCES IN CRITICAL CARE MEDICINE
INCLUDING MONITORING, INSTRUMENTATION AND IMAGING***Q.P.Code: 161484***Time: Three Hours****Maximum: 100 Marks****I. Elaborate on:****(2 x 15 = 30)**

1. List the diagnostic methods you would employ in dealing with a patient with gastro-intestinal bleed needing significant blood transfusion? Discuss Rotational thromboelastogram (ROTEM) with graphs in various clinical conditions. How would you use it in clinical your practice?
2. How would you use the available literature to treat a profoundly hypoxic patient in your ICU?

II. Write notes on:**(10 x 7 = 70)**

1. What is the role of granulocyte infusions in a critically ill patient? What are the complications of granulocyte transfusion?
2. Discuss briefly the principles of pulseoximetry and capnography. Enumerate the factors, which could affect these monitors?
3. Discuss extracorporeal carbon-dioxide removal and its current role in critical care?
4. Discuss the current evidence for the use of corticosteroids in sepsis quoting most recent trials.
5. Discuss the indications of muscle relaxants and the current evidence in critically ill patients.
6. Write briefly about the current evidence an extracorporeal haemadsorption techniques in sepsis.
7. What is the recent classification for acute kidney in a critically ill patient? What are the differences between the Acute Kidney Injury Network criteria and the Kidney Disease: Improving Global outcomes criteria? In your opinion, which of these guidelines is better applied in the ICU?
8. What is your approach on transfusion of blood in a critically ill patient? Write briefly on the use of fresh blood in critically ill patients.
9. How would you use the science of pharmacokinetics and pharmacodynamics to deal with extremely drug resistant pneumonia in a ventilated critically ill patient?
10. Write a critique on Sepsis 3.
