Write short notes on:

1. Describe briefly physiologic changes during aortic cross clamping and unclamping during vascular surgery. Which therapeutic interventions can minimize these effects?  5+5

2. Enumerate the anticipated problems in an adult patient with:
   a) Scoliosis at thoracic level.
   b) 2 days old smoke inhalational injury.  5+5

3. Post resuscitation care in a patient revived after cardiorespiratory care.  10

4. a) Oxygen cascade (with diagram) & its implications.  5+5
   b) Anaesthetic management of Post-partum Hemorrhage (PPH).  

5. a) Define and classify respiratory failure.  (2+3)+5
   b) Berlin definition of Acute Respiratory Distress Syndrome (ARDS).

6. Various patterns of nerve stimulation in neuromuscular monitoring and their interpretation with the help of diagram(s).  10

7. a) Remifentanil.  5+5
   b) Sevoflurane versus halothane.

8. a) Context-sensitive half life (or half time).  5+5
   b) Compare sodium nitroprusside and nitroglycerine.

9. a) Role of mixed (and/or) central venous oxygen saturation measurement in ICU (Intensive Care Unit).  5+5
   b) Indications & contraindications of parenteral nutrition in ICU.

10. Indications, contraindications, advantages, complications and various techniques of performing percutaneous tracheostomy.  2+2+2+2+2