Q.1 A 48 year old man with a large multi nodular goitre presents for subtotal thyroidectomy. He is clinically and biochemically euthyroid. A balanced anaesthetic technique is used.

a) What is the motor and sensory innervation of larynx?
b) After giving reversal you extubate the patient but he has difficulty in breathing associated with stridor. How will you manage him?
c) What other complications can occur post thyroidectomy in a euthyroid patient?

Q.2 A 40 year old male is due for right inguinal hernia repair. He had myocardial infarction two years ago followed by stenting of his right coronary artery. His echocardiogram shows an ejection fraction of 55%. His recent coronary angiogram shows 60% blockade of left anterior descending artery. He is taking tablet aspirin, clopidogrel, metoprolol and captopril.

a) Enlist drugs you will continue until surgery?
b) How you will monitor this patient intra-operatively?
c) This patient is unwilling for a general anesthetic, what will be your technique, justify?

Q.3 A 64 year old male with one kidney is scheduled for anteroposterior resection for carcinoma colon. He gave history of kidney removal 4 years earlier secondary to renal stones. He gives history of poor functioning of leftover kidney.

a) Enumerate tests to analyze his renal status at present?
b) How you will prevent further injury to the kidney during the perioperative period.
c) What are the anesthetic considerations in this case?
Q.7 a) Give a definition of delirium as applied to patients on critical care units.  
b) List the causes of delirium in patient on critical care units.  
c) How may the incidence of delirium be kept to a minimum in a critical care unit?

Q.8 A 28 year old lady para 4, of 34 weeks gestation is brought to the operating room in an emergency situation. She has a weak pulse with rate of 140/minutes and blood pressure is not recordable. She has active bleeding per vaginum for last 3 hours. She gives history of bleeding off and on during pregnancy which stopped with bed rest. She has taken one glass of juice one hour earlier.

a) What are your anesthetic considerations?  
b) Justify the choice of your anaesthetic technique.

Q.9 A 28 year old male was admitted to the hospital with history of seizures. On CT scan a tumor is located in his right temporal region. He is presently taking valproic acid tablets 500mg every 8 hours and dexamethasone 4 mg every 6 hours. He is scheduled for craniotomy.

a) Define cerebral perfusion pressure?  
b) How will you maintain cerebral perfusion pressure in this patient under general anesthesia?  
c) Enumerate monitors you will apply to this patient and give justification?  
d) What level of end tidal carbon dioxide you would like to keep and how will you achieve this?

Q.10 A 45 years, 89 kg male is being nursed on a ventilator after thoracotomy. He suddenly becomes restless, and agitated with marked haemodynamic disturbances.

a) List possible causes of his “fighting the ventilator”?  
b) How will you assess this patient?  
c) Give your management.
Q.4 A 60 year old women, ASAIII is scheduled for right mastectomy for carcinoma breast. Your anaesthesia plan includes para-vertebral block with IV sedation as you are pressed for time you perform the block in a side room. When you check the block (pinch), patient complains of sharp pain. It is at this time you realize your mistake of performing wrong side block. Instead of right you have performed left para-vertebral block.

a) Identify loop holes which could have led to wrong side peripheral nerve block in this case.

b) List steps which would minimize risk of wrong side procedures.

c) What should be the immediate response in this situation?

Q.5 A 45 year old female is undergoing laparoscopic anterior resection for carcinoma colon. She has no other known medical disease. She is given general anaesthesia with tracheal intubation and controlled ventilation. Procedure started off, with patient in lithotomy and head down position. Procedure is uneventful till left side of middle colon is dissected. Suddenly you notice an increase in peak airway pressure (35cm H₂O) with a rise in CO₂ and a fall in SpO₂. You check the anaesthesia machine and tracheal tube for correct positioning and mechanical faults, but none found. Although you have limited access, auscultation reveals diminished breath sounds on left side.

a) What is the most likely diagnosis?

b) List your immediate management steps.

Q.6 You are asked to assess a 60 year old female, post modified radial mastectomy (MRM). Nurse in recovery is concerned about the sedation level (patient is unresponsive to verbal communication) and low respiratory rate, even though she is maintaining saturation on 6L/min of oxygen via mask. She underwent chemotherapy 6 weeks back, otherwise well. She had multi-modal analgesia (paracetamol/morphine) intraoperatively.

a) What is the likely diagnosis and why?

b) How will you confirm your diagnosis?

c) List your main concerns in this patient.

d) How would you manage?