Q.1 A 22 year old male had RTA, brought in ER with breathlessness, swelling and puffiness of face. He has haemoptysis and has no breath sound on right side with surgical emphysema. X-ray revealed no lung markings but he has normal neck veins and cardiac pressures.

a) What is your diagnosis?

b) What would be your management plan?

Q.2 A 25 year old female was intubated and had tracheostomy for 18 days during treatment for organophosphorous poisoning. Salvia was coming from tracheostomy sites.

a) List predisposing causes of this pathology and 3 investigations to confirm the diagnosis.

b) Which endoscopic procedure you will do and justify?

Q.3 A 35 years man presents with cough and haemoptysis off and on for the last one month. He also complains of breathlessness and fever for the past six months. On examination he is dyspneic, his vitals are normal. He is anaemic with haemoglobin 8 g. chest examination revealed bronchial breathing on left upper part of the chest. X-ray chest shows cavitatory lesion on the left upper zone with crescentic opacity in centre.

a) What is the pathophysiology of hemoptysis in this case?

b) What are indications of surgical interventions lung resection VS cavernostomy?

Q.4 You have operated a patient of squamous cell carcinoma with right upper lobectomy mediastinal lymphadenectomy.

a) What is the recurrence and survival in this case after five years?

b) How would you advise followup plan to patient and clinically examine and investigate in visits.

c) Enumerate changes due to reclassification of CA lung staging.
Q.5 A 60 year old patient has mediastinal lymphnode on CT with proven right lung adenocarcinoma.

   a) How would you confirm mediastinal lymphnode N2 status?
   b) How would you map and number pretracheal, retrotracheal and lower paratracheal lymphnodes?

Q.6 A 12 years old girl has been referred by gastroenterologist for operative treatment. She has history of progressive regurgitation of food since birth and now has worsened regurgitation with intermittent grade 3 dysphagia for last 6 months.

   a) What is your diagnosis?
   b) Write the relevant diagnostic investigations.
   c) Enlist operative treatment strategies.

Q.7 An afebrile 25 years old male who had blunt trauma of left chest. 3 years back, complains of a soft bulge on coughing over left chest wall with a positive cough impulse on palpation. X-ray chest PA view is normal.

   a) What is your diagnosis?
   b) Enlist the investigations which will help in diagnosis of this condition.
   c) What are the principles of operative modalities to treat this patient?

Q.8 A 48 years old male underwent VATS for lobulated pleural mass. Tissue diagnosis was malignant pleural effusion with mesothelioma.

   a) What treatment options are available for above patient?
   b) What are metastatic tumours of pleura?
Q.9 2 months after cardiac surgery 56 years old female presents with gaping sternal and chest wound with foul smelling discharge. Both mammary are harvested in this surgery.

a) What are the different types of sternal dehiscence? What is the type of wound in this case?
b) How would you manage this case?

Q.10 You are called to see a new born child with dyspnea. On examination his abdomen is scaphoid, left side breath sounds are decreased, apex beat is shifted to right. His saturation is 85% on air.

a) What is the diagnosis?
b) How would you confirm the diagnosis?
c) Outline the management plan.
Q.11 A case of blast injury with major hemothorax on right side associated with hypotension and tachycardia. On exploration patient has splinter injury to main pulmonary artery trunk at hilum. He has O-negative blood group with limited supplies in blood bank.

a) What are emergency operative steps to control haemorrhage in this case?
b) What is the definitive procedure of choice?
c) Enlist the steps of operative procedure.

Q.12 A 32 year male pilot had sudden acute onset of shortness of breath and chest pain on right side. He has no history of smoking. On examination he has decreased breath sounds on right side.

a) What is the diagnosis?
b) What are the indications for operation in this condition?
c) What is the operative management?

Q.13 28 year old female has presented with productive foul smelling sputum more in morning for last 8 months. CT scan reveals an area of localized multiple cavities in left lower lobe.

a) How would you investigate and prepare the patient for definitive treatment?
b) What are the operative steps of surgery in this case?

Q.14 A 45 years old male with a history of APER for Ca rectum 4 years ago has presented with a pulmonary nodule 2 cm in size on CT scan located in periphery of left lower lobe. He had resection of solitary mets in right lobe of liver 01 year ago.

a) How will you localize lung nodule during thoracoscopy?
b) Write down clinical criteria for excision of pulmonary mets.
c) Enlist prognostic indicators for improved survival once pulmonary metastatectomy is being considered.
Q.15 A 62 years old male with history of Myasthenia Gravis underwent thymectomy. On second post operative day, he developed difficulty in breathing with respiratory rate 28/min, O₂ saturation on pulse oximetry 85% with 8L FiO₂ support. Clinically there was profuse sweating. Previously he was taking tab pyridostigmine (60 mg) 3 tabs every 4 hours.

a) What are differential diagnoses for this condition?
b) How will you confirm your diagnosis?
c) Outline management of the case?

Q.16 A 60 years old patient has presented with dysphagia. Endoscopic biopsy revealed poorly differentiated adenocarcinoma of Grade-3.

a) How would you stage and assess the lymphnode status?
b) What are the recent advances in reference to CRM (circumferential resection margin) in staging?
c) What is the role of CCRT in current recent trials?

Q.17 A 35 years old female had left mastectomy for phylloides tumour 6 months ago. She has presented with a mass over the left breast region 6 cm in size located within 2 cm of left manubriosternal margin. The mass is involving underlying 3 ribs and anterior segment of left upper lobe of lung.

a) Write the relevant preoperative workup.
b) What are the prosthetic choices available for reconstruction in this case?
c) What are the important postoperative complications? How will you manage bone cement syndrome?
Q.18  A 30 years lady presented with productive cough, hemoptysis, weight loss and low grade fever for last 6 months. Now she has developed breathlessness and respiratory distress. On examination diminished breath sound on right side of chest. X-ray chest shows air fluid level on right side.

   a) How will you proceed to diagnose this case?
   b) What is the criteria for exudative effusion?
   c) What are the surgical options in this case?

Q.19  A 45 years male has presented with vague upper abdominal pain for last 01 year. For last 02 weeks he has postprandial fullness and vomiting. CT scan with oral contrast revealed a 5x8 cms para-esophageal hernia. In reference to minimally invasive repair procedure, comment on the following:

   a) Patient positioning
   b) Port siting
   c) Principle steps of the operative procedure

Q.20  a) What are absolute indications for lung isolation during thoracic anaesthesia?

   b) What are the indications for a right-sided double lumen endobronchial tube?

THE END