1. A 57-year-old woman, with a previous gastrectomy, reports paraesthesia in both legs for 1 year. Impaired vibration and joint position sense are also impaired. Her FBC reveals Hb 5.6 g/dL, MCV 96 fl (normal range 76-90); WBC 6 × 10⁹/L; platelet count 121 000. The serum vitamin B-12 level is 170ng/L (range 160-760 ng/L); Methyl malonic acid and homocysteine level are elevated. Hyperpigmentation is also noted. Iron studies are normal. Write short notes on investigations and management.

2. a) Discuss the changes in the CSF seen with the following meningitides
   i) Tuberculosis.
   ii) Cryptococcus.
   iii) Streptococcus pneumonia.
   iv) Viral.
   (12)

   b) Discuss the reasons for a 40-year-old male with a left upper lobe pneumonia thought to be a community acquired pneumonia failing to respond to Augmentin therapy (combination of amoxicillin and clavulanate).
   (13)

3. A 22-year-old man is referred to you from the local primary care clinic with a short history of puffy face and swollen legs. He was previously healthy. His BP is 196/118mmHg
   a) What is the most likely diagnosis? (2)
   b) List 3 causes of this condition. (3)
   c) How would you investigate this patient in a cost-effective manner? (8)
   d) How would you treat this patient further? (7)
   e) List 5 indications for acute dialysis. (5)

4. a) Discuss the aetiology and management of gastric and duodenal ulcers. (8)
   b) Discuss the diagnosis and management of tuberculous pericarditis. (8)
   c) Discuss the aetiology and management of a dilated cardiomyopathy. (9)
1 a) Discuss the clinical features of an infection with Corynebacterium diphtheria. (6)
b) List five drugs which increase the anticoagulant effect due to warfarin. (5)
c) Write short notes on life-threatening complications of multiple myeloma. (4)
d) List five risk factors for the development of osteoporosis. (5)
e) Write short notes on the complications of polycystic kidney disease. (5)

2 Write short notes on the following
   a) An approach to hyponatremia. (10)
   b) Causes of cerebellar ataxia. (10)
   c) Brake fluid (ethylene glycol) overdose. (5)

3 A 26-year-old man from Cameroon presents to you with severe pain in the region of his right distal femur. He is in severe pain, but has a normal examination over the area of pain. The rest of his examination is also normal, except that he is pale. The patient’s Hb is 8g/dl.
   The full blood count further reports the presence of a reticulocytosis, sickle cells and target cells are also seen
   a) What is the most likely diagnosis? (2)
   b) How would you treat this patient? (8)
   c) List 5 causes of a macrocytosis. (5)
   d) The laboratory phones you with a FBC result of a patient in your ward. The haematologist tells you there are features of a microangiopathic haemolytic anaemia (MAHA)
      i) What are the 3 cardinal features of a MAHA? (6)
      ii) Name 4 causes of a MAHA. (4)

4 a) List five causes of sterile cerebrospinal fluid pleocytosis (cells in a sterile CSF). (5)
b) Explain how you would measure the size of the heart by means of using a chest x-ray. (3)
c) Write short notes on the causes of ascites with low serum-ascites albumin gradient. (4)
d) Write short notes on the three common causes of pansystolic murmur on the apex of the heart. (6)
e) Tabulate the differences between Nephrotic syndrome and Nephritic syndrome. (7)