**For Each patient give diagnosis, etiology and treatment.**

**Patient A**

Patient A is a woman, 20 years of age, living in a small, rural town. In October, she suddenly begins experiencing fatigue, anxiety, and heart palpitations. She has recently given birth to her second child, a daughter. Approximately two years after the initial symptoms, Patient A begins experiencing abdominal pain.

Five years after the symptoms initially began, Patient A becomes pregnant with her third child. During the sixth month of her pregnancy, the patient begins to experience problems. She has premature contractions, increased fatigue, headaches, and swelling in her legs. Her physician prescribes bed rest due to overexertion.

Shortly after the birth of her third child, Patient A begins experiencing new and puzzling symptoms. Her ankles and knees begin to swell, and the edema is noted bilaterally. She also starts to complain of joint pain in her ankles, knees, elbows, wrists, and fingers. Patient A has difficulty climbing a flight of steps or dancing. Rest and over-the-counter pain medication relieve her symptoms.

While Patient A has never liked cold weather, suddenly she is having a problem with her hands and feet becoming painful and discolored when she is exposed to cold. Her extremities became painful, stiff, and altered in color when exposed to cold temperatures.

**Patient B**

A 34-year-old Hispanic male presents with the chief complaint of chest pain. The patient had been well until 10 days prior to admission, when he developed a severe sore throat accompanied by fever, rigors, and diffuse myalgias. There was no associated cough. Three days later, he visited his primary care physician at an outside facility and was prescribed penicillin 500 mg twice daily for presumed streptococcal pharyngitis. Five days later, he presented to the emergency room of an outside hospital and stopped his antibiotics after a throat culture there was negative for beta-hemolytic strep. The following morning, the patient awoke in the middle of the night with severe left-sided chest pain and presented again to his local emergency room. The patient described a sensation of left-sided chest pressure which became worse when lying down and somewhat improved upon sitting up.

**Patient C**

Ms. Johansson comes into the clinic complaining of joint pain and muscle weakness, especially in her hands, hips and shoulders[2]. She explains that she has been having trouble making it through a full day of work because her body feels limited and she just cannot reach as well for boxes at her job because "her arms won't go up that far". She also has noticed that she gets out of breath and sometimes has chest pain when she lifts a lot too quickly. Ms. Johansson indicates that her fingers often feel very swollen and stiff and sometimes feel "stuck" in a bent position. She reports that for several months she has been getting a really cold, numb feeling in her fingers throughout the day, especially when she is sitting in the air conditioning at her office. Overall, she has just not felt well for the past few months either. When she eats, she has trouble fully opening her mouth to put food in. Then, when she lies down at night after dinner, she gets a feeling of heartburn and sometimes feels she has to vomit. However, she says she has been eating poorly lately, so it's probably her fault she hasn't felt well. Additionally, Ms. Johansson reports losing 20 pounds in the past month without any lifestyle changes. Her goals for therapy are to decrease her joint pain and to get her muscles stronger so she doesn't struggle at work any longer. Her focus is on getting her hands and arms "back to normal" because they are what she uses most in her job.

Patient D

Joy G. is a 48-year old married mother of 3 active boys, ages 12, 15, and 18. She enjoys attending her sons’ sporting events and providing “Mom-Taxi” services for her sons and their friends. She also loves her part-time job as a hairdresser at a popular salon. Seven months ago, Joy began noticing stiffness in both hands in the morning that lasted longer and longer. Stiffness now lasted more than 1 hour every morning and included hands, wrists and ankles. She also had increasing difficulty standing for long periods at work or at home due to foot and ankle pain. She began taking ibuprofen 800mg 3 times daily and found it helped her get through her day with less pain and stiffness. Three months ago, Joy noticed pain in her right and left shoulders when she would cut or blow dry her client’s hair. She also began feeling extremely tired and short tempered. She had no energy to do her usual activities. Ibuprofen was no longer very effective for her pain or stiffness. One morning, Joy could not lift her arms at all without extreme shoulder pain. She knew it was time to get help. She had been speaking with her friends and they encouraged her to see a doctor.

Patient E

71-year-old male complains of intermittent weakness and muscle fatigue progressively worsening over the past month. A previous long-distance runner, he now has difficulty getting his mail. His symptoms of profound leg weakness and fatigue are attributed to age and his underlying history of CAD atrial fibrillation. Over the past few months, he also reports having noted “eye strain” when working at the computer or reading for long periods of time. He has developed intermittent double vision that seems to be worse when reading at bedtime.