

<b>Year 2019/2020</b>	<b>Subject: Internal Medicine</b>
<b>Final Exam</b>	<b>Second year</b>
<b>Date : 20 /1/2020</b>	<b>Total Marks: 50</b>
<b>Time allowed:2 hours</b>	<b>Dr. Asmaa Nabil</b>

1. A 44 year old woman, currently working in a bakery, presents symptoms, including episodic cough, wheeze, shortness of breath and chest tightness with itchy red watery eyes and a stuffy, runny, itchy nose. These symptoms become worse within 1-2 hours of starting work each day, and worsen throughout the work week. She especially finds red bran to worsen her symptoms almost immediately on exposure. She notices an improvement within 1-2 hours outside of being at her workplace.

Her past medical history is significant for seasonal allergic rhinitis in the summer months since childhood. She is a lifelong non-smoker. Her family history is significant for asthma in her mother and brother.

- A. What is the most appropriate diagnosis of this patient ?
  - B. What are the recommended investigations for this case to confirm diagnosis ?
  - C. What are the risk factors in this case that support your diagnosis?
  - D. What are the proper treatment of this case during attacks and in between attacks ?
2. Ali is a 68 year old man who developed a harsh, productive cough four days prior to being seen by a physician. The sputum is thick and yellow with streaks of blood. He developed a fever, shaking, chills and malaise along with the cough.
    - A. What are differential diagnoses of these symptoms?
    - B. What organisms are likely to be causing this symptoms?
    - C. What are investigations that would help you to confirm diagnosis ?
    - D. What is the proper way of treatment of this case?
  3. A 16-year-old boy working as a mason presents with a history of polyuria, polydipsia, and weight loss of 6 kg over 3 months. His biochemical evaluation shows fasting plasma glucose –280 mg/dl, postprandial plasma glucose – 380 mg/dl, HbA1c – 10.5%, and glutamic acid decarboxylase antibody positive.
    - A. What is the disease this boy is suffering from?
    - B. What are the target cells of glutamic acid decarboxylase antibody ?
    - C. How would you manage this case as regard different lines of treatment ?

4. A 66-year-old male complaining of chest pain is brought to the emergency room by ambulance. The pain began six hours ago and has become more severe over the past hour prompting him to call emergency services. He describes the pain as retro-sternal, pressure-like, and non-radiating. He endorses some mild dyspnea and nausea accompanying the pain. He has also noted intermittent palpitations since last evening.
  - A. What do you initially suspect this patient's diagnosis?
  - B. What are therapies indicated for this patient ?
  - C. What are investigations will you do immediately ?
  - D. What are classic symptoms associated with Acute Coronary Syndrome ?
  
5. A 49 year old woman presented to the emergency room complaining that she had vomited up blood at home. She had been suffering with sharp epigastric pain, especially in the morning, for one week before the vomiting began. The pain was accompanied by mild nausea and was relieved by food or antacids.
  - A. What is the most expected diagnosis of this case and what are the proper investigations that confirm diagnosis?
  - B. This case complicated by hematemesis of large amount of blood what is the first aid management of this situation in the emergency room ?
  - C. What are common causes of this presentation ?
  - D. What is the most common infection that may cause these symptoms ?
  
6. 32 year old lady was referred in 2008 with Graves Disease. She presented with typical symptoms which included tiredness, shaking, palpitations, itching, eye redness, ophthalmopathy, and exophthalmos.
  - A. What is the organ affected in Graves Disease ?
  - B. What is function of this organ ?
  
7. What are different classes of oral hypoglycemic medications ( enumerate at least 3 classes)? describe mechanism of action of one of them ?
  
8. Classify medications used in bronchial asthma according to their mechanism of action ?