Question 1-1
A 50-year-old female geriatrician presents with complaints of hearing loss and episodes of vertigo. She also complains of tinnitus. This presentation is most consistent with

(A) atypical migraine  
(B) viral neuronitis  
(C) labyrinthitis  
(D) Ménière disease  
(E) round window fistula

Question 1-2
A 50-year-old female presents to the emergency department with new-onset seizures. Laboratory studies reveal:

- Sodium: 115 mEq/L
- Potassium: 3.5 mEq/L
- Chloride: 115 mEq/L
- CO₂: 25 mmHg
- BUN: 18 mg/dL
- Creatinine: 1.0 mg/dL
- Serum osmolality: low
- Urine osmolality: high

The most likely explanation for these laboratory abnormalities is

(A) diuretic overuse  
(B) renal tubular acidosis, type II  
(C) syndrome of inappropriate antidiuretic hormone (SIADH) secretion  
(D) uncompensated metabolic acidosis  
(E) water intoxication from psychogenic polydipsia

Question 1-3
A 68-year-old female presents with the complaint of nasal congestion alternating with rhinorrhea for the past eight months. She has no history of allergies. Skin tests for common allergens are negative and the nasal swab has less than 25% eosinophils. She is prescribed ipratropium bromide (Atrovent®) nasal spray and her symptoms resolve. The most likely diagnosis is

(A) allergic rhinitis  
(B) cocaine abuse  
(C) rhinitis medicamentosa  
(D) sinusitis  
(E) vasomotor rhinitis

Question 1-4
Variability on a fetal heart rate monitor predominantly reflects

(A) integrity of the autonomic nervous system  
(B) integrity of the cardiovascular system  
(C) maternal fluid status  
(D) head compression  
(E) cord compression
Question 1-5
A female patient presents for evaluation of suspected asthma. She reports coughing and wheezing that occurs two times each week. Similar symptoms occur each year in the spring. Her symptoms resolve completely with the use of inhaled albuterol (Ventolin®). She has not needed to change any of her normal activities and she denies any symptoms at night. Her lungs at this time are clear to auscultation, and office pulmonary function tests reveal normal FEV1. The most likely diagnosis is

(A) mild intermittent asthma
(B) mild persistent asthma
(C) moderate intermittent asthma
(D) moderate persistent asthma
(E) chronic bronchitis

Question 1-6
A 36-year-old administrative assistant presents with the complaint of pain radiating down his thumb and up his forearm for the past several days. On physical examination he is afebrile with tenderness at the base of the first metacarpal and slight swelling on the radial side of the wrist. There is full range of motion of the wrist, with no warmth or redness, but pain results when extension and abduction of the thumb is resisted. The most likely diagnosis is

(A) acute wrist sprain
(B) osteoarthritis of the first metacarpal joint
(C) de Quervain tenosynovitis
(D) Colles fracture
(E) carpal tunnel syndrome

Question 1-7
Which of the following is the most appropriate on-site response to an acute anterior shoulder dislocation with neurovascular compromise?

(A) immobilization and ice
(B) immediate reduction attempt
(C) hospital transfer for immediate surgical intervention
(D) oral analgesics
(E) transfer to emergency department for radiographs

Question 1-8
A patient presents for evaluation of fatigue and weight loss. Physical examination is normal. Laboratory findings reveal:

- Calcium: 14 mg/dL
- Ionized calcium: 10 mg/dL
- Intact parathyroid hormone: 5 pg/mL
- Protein: 5 g/dL
- BUN: 18 mg/dL
- Creatinine: 0.9 mg/dL

These findings are most consistent with

(A) hypercalcemia secondary to hypoproteinemia
(B) hypothyroidism
(C) malignancy
(D) primary hyperparathyroidism
(E) vitamin D deficiency
Question 1-9
A 65-year-old male presents with the complaint of pain in his right foot. History reveals that two days ago he suffered a mechanical fall and bruised his right shin. He reports no other injury. Prior medical history is positive for myocardial infarction, congestive heart failure, hypertension, and atrial fibrillation. His medications include nadolol (Corgard®), digoxin (Lanoxin®), lovastatin (Mevacor®), furosemide (Lasix®), and warfarin (Coumadin®). Physical examination reveals extensive ecchymosis of his right lower leg. His right foot is cool to touch and no pulses are palpated. The most appropriate next step is

(A) angiography
(B) neurosurgical consult for cauda equina syndrome
(C) orthopedic consult for fasciotomy
(D) pulsed topical oxygen at 15 psi
(E) vascular surgery consult for angioplasty

Question 1-10
A 40-year-old female is evaluated for a one-month history of a pruritic rash. She has multiple purple papular lesions on the flexor surfaces of the arms and legs. The lesions have a fine white scale. She also has a white lacy pattern of the buccal mucosa. The most likely diagnosis is

(A) lichen planus
(B) pityriasis rosea
(C) psoriasis
(D) seborrheic dermatitis
(E) vitiligo

Question 1-11
A 16-year-old African-American male presents with a three-day history of pain in the lateral aspect of his right knee. History reveals that while playing basketball with friends after school he made a lay-up shot and came down on the outside of his right foot. He did not fall or twist his ankle, but he felt pain in the lateral aspect of his right knee. There is no swelling and the patient has no trouble with weight-bearing in a normal gait. Examination of the knee reveals it to be intact with no swelling or ligamentous changes. Examination of the fibular head with a modified drawer test reveals restriction in anterior glide and increased posterior glide. The most likely diagnosis is

(A) posterior fibular head dysfunction
(B) anterior fibular head dysfunction
(C) iliotibial band syndrome
(D) jumper knee
(E) Osgood-Schlatter disease

Question 1-12
Which of the following is associated with an increased risk of breast carcinoma?

(A) alcohol consumption
(B) aspirin
(C) early menopause
(D) multiparity
(E) raloxifene (Evista®)
Question 1-13
A 66-year-old male presents with the complaint that his heart is “skipping beats.” He denies chest pain, dyspnea, and neurologic symptoms. Past medical history is positive for osteoarthritis. He currently takes no medication. Physical examination is unremarkable. An ECG is obtained, as shown in the exhibit.

Which of the following is the most appropriate interpretation of this patient’s ECG?
(A) atrial fibrillation
(B) sinus tachycardia
(C) normal sinus rhythm
(D) third-degree heart block
(E) multifocal atrial tachycardia

Question 1-14
You examine a 42-year-old female complaining of lower neck pain and find tissue texture abnormalities of the anterior and middle scalenes on the right. Which of the following ribs should be treated?
(A) first rib
(B) second rib
(C) third through fifth ribs
(D) sixth through ninth ribs
(E) tenth through twelfth ribs

Question 1-15
A study evaluated the use of D-dimer in patients judged to be at low to moderate risk of deep venous thrombosis. Out of 100 patients with negative D-dimers, 98 were found to be free of any evidence of deep venous thrombosis for up to 90 days after testing. Two patients with negative D-dimers were found to have evidence of deep venous thrombosis. Which of the following is correct regarding this study?
(A) D-dimer has a sensitivity of 2%
(B) D-dimer has a positive likelihood ratio of 2.0
(C) D-dimer has a positive predictive value of 2%
(D) D-dimer has a negative predictive value of 98%
(E) D-dimer has a negative likelihood ratio of –2.0
Question 1-16
A 32-year-old male with AIDS presents with the complaint of dysphagia for several days’ duration. He describes retrosternal burning discomfort. Examination of his oropharynx is normal. You note that his recent CD4 count was 180/mcL. The most likely diagnosis is

(A) candidal esophagitis
(B) duodenal ulcer, *Helicobacter pylori* positive
(C) gastric ulcer, *Helicobacter pylori* negative
(D) mediastinal tuberculosis
(E) *Pneumocystis carinii* pneumonia

Question 1-17
A 30-year-old male presents for evaluation of left hip pain. Hip range of motion is normal. The left ASIS is superior and the left PSIS is inferior. A standing flexion test reveals the left PSIS to be more superior when the patient is fully flexed forward. The most likely diagnosis is

(A) left innominate anterior
(B) left innominate posterior
(C) right innominate anterior
(D) right innominate posterior
(E) sacral torsion

Question 1-18
A 72-year-old male presents with complaints of urinary incontinence and straining on urination. The patient states that the amount of urine is very small and he always has a feeling of incomplete voiding. The most likely diagnosis is

(A) overflow incontinence
(B) urge incontinence
(C) stress incontinence
(D) functional incontinence
(E) mixed incontinence

Question 1-19
A 78-year-old male presents with a three-month history of a skin lesion. Examination reveals the finding shown in the exhibit (next page). The most appropriate treatment option is

(A) cryosurgery
(B) electrodesiccation
(C) topical steroids
(D) silver nitrate
(E) topical antibiotics

Question 1-20
The first sign of puberty in females is the appearance of

(A) acne
(B) axillary hair
(C) breast buds
(D) menarche
(E) pubic hair
Question 1-21
The most appropriate management for a 2-year-old male with an undescended testicle is
(A) testicular scan
(B) referral to a urologist
(C) luteinizing hormone and follicle-stimulating hormone levels
(D) re-evaluation in six months
(E) reassurance that it is a normal variant

Question 1-22
The most common cause of postpartum hemorrhage (24 hours to 6 weeks postpartum) is
(A) coagulopathy
(B) uterine atony
(C) hematoma
(D) retained placental products
(E) placental accreta

Question 1-23
A 14-year-old female with a history of mild persistent asthma presents with increasing amounts of coughing and dyspnea during exercise. Previously her asthma had been well controlled with montelukast (Singulair®) and albuterol (Proventil®) as needed. She is now using her albuterol (Proventil®) approximately three times daily and occasionally at night. She denies any known exposure to environmental allergies, cigarette smoke, or gastroesophageal reflux disease symptoms. Her physical examination is unremarkable. The most appropriate next step in management is
(A) azithromycin (Zithromax®)
(B) fluticasone (Flovent®)
(C) ipratropium (Atrovent®)
(D) loratadine (Claritin®)
(E) methacholine challenge

Question 1-24
A patient presents to the office with a six-month history of chronic fatigue. Routine laboratory studies reveal hypokalemia, hyponatremia, hypochlorhydria, and hypoglycemia. These findings are indicative of
(A) Addison disease
(B) carcinoid syndrome
(C) Cushing disease
(D) insulinoma
(E) pheochromocytoma

Question 1-25
Which of the following is a common cause of male infertility that is thought to result from incompetence of the valve between the internal spermatic vein and the renal vein?
(A) Leydig cell tumor
(B) cryptorchidism
(C) Cushing syndrome
(D) epididymitis
(E) varicocele
Question 1-26
A 14-year-old male complains of a cough, wheezing, and chest tightness. He is trying out for the basketball team at school and notices that these symptoms occur shortly after the start of exercising. He states that he had to sit out of several practices because he could not keep up with the other players without getting short of breath. His physical examination is normal. The most appropriate first-line therapy for this patient is

(A) albuterol metered-dose inhaler (Ventolin®)
(B) observation
(C) cromolyn sodium inhaler (Intal®)
(D) fluticasone inhaler (Flovent®)
(E) theophylline (Theo-Dur®)

Question 1-27
A 16-month-old female presents with a 24-hour history of a rash. Her parents report that she is eating and sleeping normally. Vital signs reveal a temperature of 37.7°C (99.8°F). Examination reveals mild coryza and the findings shown in exhibit 1 and exhibit 2 (next page). The remainder of the physical examination is normal. The most likely diagnosis is

(A) erythema infectiosum (fifth disease)
(B) exanthem subitum (roseola)
(C) rubella (German measles)
(D) rubeola (measles)
(E) scarlet fever (scarlatina)

Question 1-28
A study evaluated prostate-specific antigen (PSA) screenings of asymptomatic males in the 50- to 60-year-old age group. Thirty percent (30%) of those who had an abnormal prostate-specific antigen level were found on further testing to have evidence of prostate carcinoma. Regarding this study, which of the following is correct?

(A) PSA has a sensitivity of 70%
(B) PSA has a specificity of 30%
(C) PSA has a positive predictive value of 30%
(D) PSA has a positive predictive value of 70%
(E) PSA has a negative predictive value of 70%

Question 1-29
A 32-year-old female presents with the complaint of weakness and episodes of blurred vision. She states that she has to lift her legs with her hands to enter her minivan. Prior laboratory studies were normal. Examination reveals an ill-appearing young female with normal vital signs, a positive Babinski sign on the left, and subtle bilateral ophthalmoplegia. The most appropriate next step in the evaluation of this patient is

(A) three-phase bone scan
(B) electromyelogram
(C) MRI of the brain and spinal cord
(D) CT scan of the head with and without contrast with attention to the cerebellum
(E) erythrocyte sedimentation rate level
Question 1-30
A 12-month-old male presents for evaluation of diarrhea. His mother reports that he is having 10 to 12 stools per day. He has lost 2 kg (4 lb) since a well-child visit one week ago. Physical examination reveals a lethargic child who is whining softly and clinging to his mother. Mucous membranes are dry. Vital signs reveal a temperature of 37.6°C (99.6°F), a heart rate of 90/min, and a respiratory rate of 24/min. The most likely cause of his diarrhea is

(A) *Vibrio cholerae*
(B) *Clostridium difficile*
(C) rotavirus
(D) poor diet
(E) Cytomegalovirus

Question 1-31
Which of the following is correct regarding the Americans with Disabilities Act (ADA)?

(A) hiring provisions only apply to private physician offices if they employ more than 15 employees
(B) requires that employees who are current abusers of illegal drugs be offered formal training and rehabilitation before they can be dismissed
(C) requires affirmative action on the part of employers to ensure workplace diversity
(D) requires employers to enact preventive measures to help prevent workplace accidents and disability
(E) prohibits physician employers from hiring any individual with a known history of disability from illegal drug use

Question 1-32
The most common cause of upper gastrointestinal tract bleeding is

(A) erosive esophagitis from severe gastroesophageal reflux disease
(B) gastric neoplasms
(C) nonsteroidal antiinflammatory drug-induced gastritis
(D) peptic ulcer disease
(E) ruptured esophageal varices

Question 1-33
Occupational Safety and Health Administration (OSHA) requirements for office-based practices include

(A) alcohol-based handwashing solution in the waiting room
(B) non-locking restrooms for disabled patients
(C) respirator fit testing for all employees
(D) separate refrigerators for medications and food
(E) yearly physical examinations of all employees

Question 1-34
As part of the routine admission orders to the nursing home, an 82-year-old female is given a Mantoux test. Two days later the nurse calls you to report that there is an erythematous wheal with 2 mm of induration at the injection site. You instruct the nurse to

(A) apply control dermal antigens
(B) obtain a chest radiograph
(C) obtain sputum cultures
(D) place the patient in respiratory isolation
(E) repeat the Mantoux test in one week
Question 1-35
A 12-year-old female is brought to the office by her mother for the evaluation of heavy menstrual bleeding. She had her first menstrual period five months ago, and from the start of her periods, her flow was very heavy, requiring her to change pads every hour. Her menses occur every 28-30 days and last 10-14 days. Premenstrual symptoms of bloating and breast tenderness, along with mild menstrual cramps and fatigue, are noted. Her past medical history is significant for frequent nosebleeds. The mother states that she did not worry at first because her own periods were heavy. Vital signs reveal a blood pressure of 100/60 mmHg and a resting heart rate of 105/min. On physical examination her skin is pale, warm, and dry with no petechiae. Abdominal examination is normal. The remainder of the physical examination, including a single-digit examination of the pelvis, is also normal. The most likely diagnosis is

(A) acute lymphocytic leukemia
(B) anovulatory cycles
(C) hypothyroidism
(D) pituitary adenoma
(E) von Willebrand disease

Question 1-36
A 35-year-old female who tested positive for hepatitis C at a health screening fair presents to the office. She shows you the laboratory results, which indicate that she is positive for HCV antibodies. She is at low risk for hepatitis C since she has no history of intravenous drug abuse or blood transfusions. She has also been in a monogamous relationship for 13 years. The most appropriate next step would be to

(A) monitor liver function tests and immunize with hepatitis A and B
(B) order a liver biopsy
(C) order an ultrasound of the liver
(D) repeat the test
(E) test for HCV RNA

Question 1-37
A male neonate is delivered at 38 weeks’ gestation vaginally and without complications. After 24 hours, the child is diagnosed with meconium ileus. These findings are suggestive of

(A) adrenal hyperplasia
(B) cystic fibrosis
(C) hyperthyroidism
(D) hypothyroidism
(E) phenylketonuria

Question 1-38
Which of the following medications may be helpful in the treatment of premature ejaculation?

(A) β-blocker
(B) α-blocker
(C) antihistamine
(D) calcium channel blocker
(E) selective serotonin re-uptake inhibitor
A 24-year-old female is evaluated for neck pain. Examination reveals restriction to right rotation with normal sidebending bilaterally. These findings most likely indicate somatic dysfunction at which of the following levels?

(A) occiput-C1  
(B) C1-C2  
(C) C2-C3  
(D) C3-C4  
(E) C4-C5

A 25-year-old male is evaluated for recurrent unilateral low back pain. At each of his previous visits, he was noted to have a sacral torsion. His symptoms improve following osteopathic manipulative treatment, with return of the pain within one to two weeks. The most appropriate next step in evaluating and treating this patient is

(A) bone scan  
(B) CT scan of the lumbar spine and pelvis  
(C) HLA-B27  
(D) MRI of the lumbar spine and pelvis  
(E) postural study

Which of the following is most likely to place a patient at an increased risk for an incisional hernia?

(A) female gender  
(B) male gender  
(C) multiple sex partners  
(D) smoking  
(E) young age

A 7-month-old female is brought to the clinic by her parents, who express concern that she is “behind” in language. They state that their daughter is just “babbling.” Which of the following is most appropriate?

(A) frenulum release  
(B) reassurance that she is verbally appropriate for her age  
(C) referral to a pediatric developmental specialist  
(D) referral to a speech pathologist  
(E) referral to an otolaryngologist

Which of the following is correct regarding the insulins lispro (Humalog®) and aspart (NovoLog®)?

(A) contraindicated with NPH insulin therapy  
(B) control postprandial hyperglycemia better than regular insulin  
(C) duration of action is longer than regular insulin  
(D) lower cardiovascular risks than metformin (Glucophage®)  
(E) onset of action is delayed compared to regular insulin
Question 1-44
Which of the following is considered a diagnostic criterion for metabolic syndrome?

(A) decreased plasma C-peptide level  
(B) increased blood pressure  
(C) increased C-reactive protein level  
(D) increased low-density lipoprotein cholesterol level  
(E) normal glycosylated hemoglobin

Question 1-45
A 32-year-old female presents 45 minutes after cutting her left index finger in her kitchen with a clean knife. The wound appears clean. Following examination you close the wound with simple interrupted sutures. She reports that she is current on all childhood immunizations; however, her last tetanus shot was 14 years ago. The most appropriate course of action is to administer which of the following vaccines?

(A) diphtheria, tetanus, pertussis (DTaP)  
(B) tetanus and diphtheria (Td)  
(C) tetanus and diphtheria (Td) and tetanus immune globulin (TIG)  
(D) tetanus immune globulin (TIG)  
(E) tetanus, diphtheria, pertussis (Tdap)

Question 1-46
According to the United States Preventive Services Task Force, which of the following is recommended regarding colorectal cancer screening in patients without known risk factors?

(A) age 35 or older  
(B) age 40 and older  
(C) age 45 and older  
(D) age 50 and older  
(E) age 55 and older

Question 1-47
A 57-year-old female presents with the complaint of progressive hearing loss in her left ear. History reveals that while growing up she had many ear infections and the physician would “lance my ears”. Examination reveals a lumpy yellow-white lesion that seems to be behind and partially involves the tympanic membrane. The most likely diagnosis is

(A) auditory neuroma  
(B) cholesteatoma  
(C) otosclerosis  
(D) squamous cell metaplasia  
(E) tympanosclerosis
Question 1-48
A 68-year-old female has a urinalysis and culture done during a routine examination. She denies dysuria, frequency, or urgency. Vital signs reveal a temperature of 37.1°C (98.8°F). Urinalysis reveals moderate leukocytes and nitrites and the culture grows greater than 100,000 colonies of *Escherichia coli*. Which of the following is correct?

(A) referral to a urologist is the next best step
(B) she has a urinary tract infection and should be hospitalized
(C) she has a urinary tract infection and should receive outpatient antibiotics
(D) she has asymptomatic bacteruria and does not need treatment
(E) the upper renal tract should be evaluated

Question 1-49
An 80-year-old female presents following hospitalization for acute cardiac decompensation. She admits to having no appetite and occasional nausea. You note that she now has a fine resting tremor. ECG is obtained, as shown in the exhibit.

![ECG Image]

The most likely diagnosis is

(A) acute anterior myocardial infarction
(B) acute inferior wall myocardial infarction
(C) digitalis toxicity
(D) hyperkalemia
(E) pericarditis
Question 1-50
A patient is treated in the intensive care unit for critical care services. Which of the following is correct regarding current procedural terminology coding for critical care services?

(A) care must be rendered by an intensivist to qualify for critical care codes
(B) care must be rendered in an intensive care unit to qualify for critical care codes
(C) coding is determined by amount of critical care time spent with patient
(D) coding is determined by amount of total time spent with patient
(E) ventilator management should be coded separately from critical care codes

Question 1-51
Patients with polycystic ovarian syndrome are most likely to have which of the following test results?

(A) decreased dehydroepiandrosterone and increased prolactin levels
(B) decreased dehydroepiandrosterone, increased follicle-stimulating hormone, and increased luteinizing hormone levels
(C) decreased free testosterone and decreased serum insulin levels
(D) increased free testosterone and increased serum insulin levels
(E) increased prolactin, decreased follicle-stimulating hormone, and decreased luteinizing hormone levels

Question 1-52
A 78-year-old male nursing home resident complains of generalized weakness and significant lower extremity myalgias. He has three reported falls in the past two months. Which of the following medications is the most likely source of this patient’s problems?

(A) amlodipine (Norvasc®)
(B) atorvastatin (Lipitor®)
(C) docusate sodium (Colace®)
(D) montelukast (Singulair®)
(E) naproxen sodium (Naprosyn®)

Question 1-53
An 8-month-old female is brought to the office with a three-day history of temperatures between 40.0°C (104.0°F) and 40.6°C (105.0°F). Today she is afebrile and looks well. Physical examination reveals a faint, diffuse, pink erythematous rash on the trunk. The most likely diagnosis is

(A) contact dermatitis
(B) German measles
(C) measles
(D) roseola
(E) varicella

Question 1-54
A 38-year-old male runner presents with right hip pain. Standing flexion test is positive on the right and seated flexion test is negative. PSIS is superior on the right and ASIS is inferior on the right. Tightness in which of the following muscles is most likely to cause this dysfunction?

(A) left hamstring
(B) left piriformis
(C) right iliopectas
(D) right piriformis
(E) right quadriceps
Question 1-55
An 82-year-old active male with a history of T12 compression fracture presents with a two-day history of new low back pain. He describes the pain as dull, constant, and slightly greater on the right. Quadratus lumborum tension is palpated on the right. He has restriction of right lumbar sidebending. The transverse processes of L2-L4 are posterior on the right. This asymmetry does not improve in flexion or extension. The somatic dysfunction is described as

(A) L1 neutral, rotated left, sidebent right
(B) L2 flexed, rotated right, sidebent right
(C) L2-L4 rotated right, sidebent left
(D) L2-L4 rotated right, sidebent right
(E) L4 flexed, rotated right, sidebent right

Question 1-56
A 64-year-old male presents for evaluation of a resting tremor isolated to the right hand. He is noted to have a slow gait and limited facial expressions. Which of the following medications is considered to be potentially neuroprotective when treating this condition?

(A) amantadine (Symmetrel®)
(B) benztropine (Cogentin®)
(C) carbidopa/levodopa (Sinemet®)
(D) selegiline (Eldepryl®)
(E) tolcapone (Tasmar®)

Question 1-57
The point to which a joint may be passively moved, and restriction at this point occurs because of bone, ligament, or tendon is known as which of the following types of barriers?

(A) anatomic
(B) dysfunctional
(C) pathologic
(D) physiologic
(E) restrictive

Question 1-58
A 1-month-old male is brought to the office with a two-week history of frequent vomiting and weight loss. At birth he was at the 50th percentile for weight, and he is now at the 35th percentile. His mother reports that he was switched from breast milk to formula three weeks ago. The most likely diagnosis is

(A) achalasia
(B) gastroesophageal reflux disease
(C) iron toxicity
(D) milk protein allergy
(E) pyloric stenosis
Question 1-59
A 65-year-old male presents for a follow up evaluation from the emergency department with the complaint of shoulder pain. He had an MRI last week that revealed a very small tear of the rotator cuff. He has no acute injury known to him. The pain has been intermittent for two years and becomes worse with impingement maneuvers. He has tried conservative measures at home to relieve the pain. The most appropriate treatment for this patient is

(A) a long arm cast for four to six weeks
(B) a sling and swathe for one month
(C) high velocity, low amplitude treatment to the cervical spine
(D) orthopedic referral for surgical repair
(E) subacromial corticosteroid injection

Question 1-60
A corporation has just released a new diagnostic test for the early detection of a condition. A study of 1,000 females revealed that 100 females had a positive test, indicating the suspected condition. All females then underwent the standard surgical procedure to diagnose the condition. Only 50 of the 100 females with a positive test were found to have the condition. No other cases of the condition were detected. The sensitivity of the diagnostic test for this condition is

(A) 25%
(B) 50%
(C) 90%
(D) 95%
(E) 100%

Question 1-61
A 19-year-old female reports that her boyfriend is currently hospitalized and is being treated for active tuberculosis. She denies cough, night sweats, fevers, chills, myalgias, anorexia, weight loss, and malaise. She was born and raised in the United States and has had no travel outside of Kentucky. The most appropriate initial step is to

(A) obtain a chest radiograph
(B) immediately hospitalize and isolate the patient
(C) test with PPD
(D) order an HIV test and CD4 count
(E) treat for active tuberculosis as an outpatient

Question 1-62
A 16-year-old male presents with the complaint of pain in his wrist after falling on an outstretched hand today. Examination reveals tenderness in the anatomic snuffbox. Radiographs are negative. The most appropriate next step is

(A) aggressive physical therapy and reevaluation in three to four weeks
(B) immediate bone scan
(C) short arm cast for four to six weeks
(D) soft elastic wrap and re-evaluate in three to four weeks
(E) thumb spica splint or cast and reexamine in two to three weeks
Question 1-63
A 45-year-old female presents with a three-day history of low back pain with radiation of pain into her left foot with numbness. Left Achilles reflex is diminished compared to the right, and plantar flexion of the left ankle is weak compared to the right. She has difficulty walking on her toes but can walk on her heels and also squat to rise. Which of the following disks is most likely herniated?

(A) L1-L2
(B) L2-L3
(C) L3-L4
(D) L4-L5
(E) L5-S1

Question 1-64
A 2-year-old female presents for evaluation of a rash on her face and the extensor surfaces of her extremities. Based on the distribution of the rash, the most likely diagnosis is

(A) atopic dermatitis
(B) psoriasis
(C) seborrheic dermatitis
(D) tinea corporis
(E) tinea versicolor

Question 1-65
A 72-year-old male presents with the finding shown in the exhibit.

He reports a history of left-sided thoracic pain that preceded the rash by one day. The patient returns three months later with persistent pain in the area where the rash had been. He reports using over-the-counter acetaminophen with only minimal relief. The most appropriate FDA-approved drug to treat this patient’s condition is

(A) fluoxetine (Prozac®)
(B) gabapentin (Neurontin®)
(C) metformin (Glucophage®)
(D) sertraline (Zoloft®)
(E) valacyclovir (Valtrex®)
Question 1-66
A 46-year-old female with progressive dysphagia due to Huntington disease is considering a feeding-tube placement. Her condition is declining, but she is able to communicate and retains insight and participation in her medical care. Which of the following is most important in determining whether a feeding tube should be placed in this patient?

(A) benefit versus risk ratio determined by the physician
(B) current patient wishes for or against artificial nutrition
(C) family wishes to prolong her life
(D) previously drawn up living will instructions
(E) terminal prognosis associated with her disease state

Question 1-67
A 35-year-old male presents to the emergency department for evaluation of diarrhea that began 24 hours ago. He reports several large, bloody bowel movements and abdominal pain. He denies recent travel or new medications, but he has started a new diet emphasizing salads and raw vegetables. Stool studies reveal increased fecal leukocytes. The most likely source of this patient’s diarrhea is

(A) *Clostridium difficile*
(B) *Escherichia coli* O157:H7
(C) Norwalk virus
(D) *Staphylococcus aureus*
(E) ulcerative colitis

Question 1-68
A randomized controlled study reveals an absolute reduction of risk of 0.05%. The number of people that need to be treated to prevent one outcome is

(A) 100
(B) 200
(C) 500
(D) 2,000
(E) 20,000

Question 1-69
A 25-year-old male smoker presents with a seven-day history of a progressively worsening cough productive of brown sputum. Examination reveals a temperature of 38.1°C (100.5°F) and mild dyspnea. He is tachypneic at 22/min. Pulmonary examination reveals rhonchi and rales in the right middle and lower lobes. Biomechanic examination reveals T6-T10 rotated right, sidebent left and T4 flexed, rotated left, and sidebent left. Ribs 6-10 on the right do not move all of the way into exhalation but do move freely into inhalation. The most appropriate description of this somatic dysfunction is

(A) rib 6 exhalation dysfunction
(B) rib 6 inhalation dysfunction
(C) ribs 6-10 exhalation dysfunction
(D) ribs 6-10 inhalation dysfunction
(E) rib 10 exhalation dysfunction
**Question 1-70**
A 28-year-old gravida 4 para 3 female at 26 weeks’ gestation presents with the complaint of vaginal bleeding. She has gestational diabetes. Which of the following is a contraindication to using osteopathic manipulative treatment in this patient?

(A) gestational diabetes
(B) multiparity
(C) pubic dysfunctions
(D) pregnancy-induced hypertension
(E) undiagnosed bleeding

**Question 1-71**
A 15-month-old infant presents with otitis media. Which of the following are the three most common bacterial organisms in order of frequency that are responsible for this condition?

(A) *Haemophilus influenzae*, *Staphylococcus aureus*, group A streptococci
(B) *Haemophilus influenzae*, *Streptococcus pneumoniae*, *Moraxella catarrhalis*
(C) *Streptococcus pneumoniae*, *Haemophilus influenzae*, group A streptococci
(D) *Streptococcus pneumoniae*, *Haemophilus influenzae*, *Moraxella catarrhalis*
(E) *Streptococcus pneumoniae*, *Staphylococcus aureus*, *Haemophilus influenzae*

**Question 1-72**
A 26-year-old female presents for evaluation of a breast mass. Examination reveals a mass in the upper outer quadrant of the left breast that is mobile, firm, and approximately 1 cm in diameter. No axillary lymph nodes are palpated. The most likely diagnosis is

(A) carcinoma of the breast
(B) fibroadenoma
(C) fibrocystic disease
(D) intraductal carcinoma
(E) Paget disease of the breast

**Question 1-73**
Which of the following is the most common complication during laparoscopic cholecystectomy?

(A) excessive bleeding
(B) inability to remove the gallbladder through the laparoscope
(C) injury to the biliary tract system
(D) liver laceration
(E) small bowel perforation

**Question 1-74**
Which of the following is correct regarding the use of angiotensin receptor-blocking agents for patients with heart failure?

(A) appropriate for patients with either systolic or diastolic dysfunction
(B) only appropriate for patients with a decreased ejection fraction
(C) should be avoided in patients with cor pulmonale
(D) should be avoided in patients with diastolic dysfunction
(E) should only be utilized for patients with hypertension and heart failure
Question 1-75
A 30-year-old male is evaluated three months following a splenectomy that was performed due to a motor vehicle collision. He has recovered from the surgery and has no other medical problems. He received all appropriate childhood vaccinations and also received a diphtheria and tetanus (Td) booster four years prior to this visit. Which of the following is the most appropriate vaccination to offer this patient?

(A) diphtheria and tetanus (Td) only
(B) *Haemophilus influenzae* type b (Hib), meningococcal conjugate (MCV4), pneumococcal polysaccharide (PPV23), and annual influenza
(C) tetanus, diphtheria, pertussis (Tdap) only
(D) there is no vaccination needed at this time
(E) varicella (chickenpox), measles, mumps, rubella (MMR), and annual influenza

Question 1-76
A 30-year-old nursing student is evaluated prior to beginning her clinical training. She received two doses of hepatitis B (HepB) vaccine at the appropriate intervals five years prior to this visit, but she did not complete the entire series. Which of the following is most appropriate regarding her hepatitis B (HepB) status?

(A) administer hepatitis B (HepB) vaccine injection #3 at this time
(B) further vaccinations are not needed
(C) order hepatitis B (HepB) core antibody and vaccinate only if the test is positive
(D) order hepatitis B (HepB) surface antibody and vaccinate only if the test is negative
(E) repeat the entire hepatitis B (HepB) series

Question 1-77
According to the Ottawa ankle rules, which of the following indicates the need for ankle radiographs?

(A) patient is able to walk immediately after the injury
(B) swelling is present in the ankle joint
(C) tenderness is noted at the base of the first toe
(D) tenderness is noted at the posterior aspect of the lateral malleolus
(E) tenderness is noted distal to the lateral malleolus

Question 1-78
A 64-year-old female is diagnosed with Graves disease. Due to comorbid disorders, management consists of propylthiouracil instead of surgery or radioiodine. She voices concerns regarding side effects of this medication. You inform her that the most common side effect she is likely to experience is

(A) arthralgias
(B) hepatitis
(C) neuritis
(D) rash
(E) thrombocytopenia
Question 1-79
A 71-year-old female presents to the office for evaluation after “almost fainting” when rising quickly from a supine position. She has a 20-year history of adult-onset type 2 diabetes mellitus, for which she takes rosiglitazone (Avandia®). She has no other significant medical history and is on no other medications. Vital signs reveal a sitting blood pressure of 142/86 mmHg. Her standing blood pressure is 112/70 mmHg, with no increase in pulse. If gradual changes in position and use of support stockings fail to lessen her symptomatology, the pharmacologic treatment of choice is

(A) bethanechol (Urecholine®)
(B) clonidine (Catapres®)
(C) fludrocortisone (Florinef®)
(D) gabapentin (Neurontin®)
(E) metoclopramide (Metoclopramide®)

Question 1-80
A 68-year-old male presents with the complaint of excess thirst and urination, fatigue, and the gradual onset of impotency over the past six months. His skin has a dark color that also appeared over the past year. Physical examination is positive for atrophic testes, hepatomegaly, and a firm, freely moveable thyroid. Laboratory studies reveal a fasting glucose of 274 mg/dL. The most likely diagnosis is

(A) Addison disease
(B) hemochromatosis
(C) pituitary adenoma
(D) Sipple syndrome
(E) Werner syndrome

Question 1-81
A 52-year-old male with a three-year history of very heavy alcohol consumption presents to the office with a distended abdomen compatible with abdominal ascites. Which of the following is the most appropriate clinical approach in the management of this condition?

(A) administer potassium chloride elixir between 80 and 100 mEq per day
(B) allow the patient to decrease his alcohol consumption to no more than two beverages per day
(C) initiate furosemide (Lasix®) 20 mg per day
(D) restrict daily sodium intake to no more than 2 g per day
(E) restrict fluid intake to 3,000 mL per day

Question 1-82
A 57-year-old male is diagnosed with stage B prostate cancer. He has a Gleason score of 4. The most appropriate management is

(A) external beam radiation
(B) interstitial seeds
(C) observation and re-evaluate in one year
(D) radical prostatectomy
(E) transurethral resection of the prostate
Question 1-83
A 70-year-old male presents to the office with a five-day history of increased dyspnea, increased mucus production, and purulence with increased cough. History reveals ischemic cardiomyopathy, chronic obstructive pulmonary disease, and type 2 diabetes mellitus. His FEV₁ is 48%. The most likely diagnosis is
(A) chronic obstructive pulmonary disease exacerbation
(B) reactive airway disease
(C) mild acute exacerbation of chronic bronchitis
(D) moderate acute exacerbation of chronic bronchitis
(E) severe acute exacerbation of chronic bronchitis

Question 1-84
A 25-year-old male presents to the office with a three-week history of intermittent, severe headaches. He describes the pain as intense, unilateral, and throbbing. The headaches last 15 to 30 minutes and occur 1 to 4 times a day. He also complains of nasal congestion, lacrimation, miosis, and ptosis associated with the headaches. This patient most likely has which of the following types of headaches?
(A) cluster
(B) hypnic
(C) migraine
(D) sinusitis
(E) tension

Question 1-85
A 55-year-old female physician, who lives in Hawaii, presents to the office in January with the sudden development of muscles aches, joint pains, gastrointestinal upset with vomiting and diarrhea, headache, malaise, chills, decreased appetite, and an unusual sensation in her eyes. She reports that the symptoms were present for three to four days, after which she felt fine for about two days before there was a return of symptoms lasting for another three to four days. She denies any recent travel or exposure to any water from non-city water system sources. Her household consists of two adults and two dogs, none having had any known illnesses. Immunizations of all adults and dogs are up to date. On examination there is a mild, nonblanching rash on her upper extremities, without any visual changes or excessive tearing. The most likely diagnosis is
(A) Coxsackievirus
(B) enterovirus
(C) influenza
(D) leptospirosis
(E) meningitis
Question 1-86
A 42-year-old female presents to the office with the complaint of pain in her arms, hands, and knees. When asked she identifies symmetrical pain in proximal interphalangeal joints, metacarpophalangeal joints, and wrist and knee joints with associated redness and swelling. She reports that pain with stiffness is worse in the morning. History reveals that she is treated for eczema, with flares occurring in the winter months. Radiographs of the hand reveal erosions and demineralization of the affected joints. The most likely diagnosis is

(A) gout  
(B) Lyme disease  
(C) osteoarthritis  
(D) psoriatic arthritis  
(E) rheumatoid arthritis

Question 1-87
An 85-year-old female is noted to have a calcium level of 10.8 mg/dL. Which of the following ECG changes is most likely to occur due to this patient’s electrolyte imbalance?

(A) heart block  
(B) peaked T waves  
(C) prominent U waves  
(D) QT interval shortening  
(E) torsades de pointes

Question 1-88
A 72-year-old male presents for evaluation of a tremor in both his arms that has been progressively worsening over the last six months. The tremor initially began in the left arm, and four months ago began in the right arm. The tremor only occurs while he is at rest. He reports that he has been moving slower and has to take much smaller steps. He is taking no new medications. The most appropriate next step to confirm the diagnosis is

(A) complete history and physical examination  
(B) CT scan of the head with IV contrast  
(C) lumbar puncture  
(D) MRI of the brain  
(E) electroencephalogram

Question 1-89
A 25-year-old male presents with a two-hour history of acute shortness of breath and severe right upper quadrant pain on inspiration. He smokes cigarettes and has a 7 pack-year history. He has no additional medical history. On examination he is in noticeable distress. Pulse oximetry reveals an oxygen saturation of 88% on room air. The most likely diagnosis is

(A) asthma exacerbation  
(B) bronchitis  
(C) pneumonia  
(D) pulmonary embolism  
(E) spontaneous pneumothorax
Question 1-90
A 22-year-old female at 35 weeks’ gestation presents with a one-day history of right-sided abdominal pain. History reveals mild preeclampsia for six weeks. She reports that earlier this morning she experienced two episodes of nausea with vomiting, but has since been able to tolerate liquids. Overnight she had epistaxis. She is afebrile with an apical heart rate of 104/min and a blood pressure of 126/78 mmHg. Physical examination reveals obvious bilateral epistaxis. Heart and lung examinations are normal. Abdominal examination reveals right upper quadrant tenderness and uterine enlargement consistent with her gestational age. There is 1-2+ bilateral lower extremity edema. Laboratory studies reveal:

- Hemoglobin: 7.4 g/dL
- Leukocyte count: 8.6 x 10^3/mcL
- Platelet count: 41 x 10^3/mcL
- Aspartate aminotransferase: 171 U/L
- Alanine aminotransferase: 180 U/L
- Total bilirubin: 4.4 mg/dL
- Direct bilirubin: 0.8 mg/dL
- INR: 1.1
- Partial thromboplastin time: 27 sec
- Urinalysis: 2+ protein

The most appropriate treatment is
(A) acyclovir (Zovirax®)
(B) endoscopic retrograde cholangiopancreatography
(C) intravenous corticosteroids
(D) magnesium sulfate
(E) prompt delivery of infant

Question 1-91
A 59-year-old female who meets full admission criteria is admitted to the hospital with a diagnosis of acute exacerbation of chronic obstructive pulmonary disease. She does well with treatment and is discharged home on the same calendar day. Which of the following evaluation and management codes are most appropriate to report for billing purposes?

(A) 99211-99215 (outpatient established patient code)
(B) 99218-99220 (initial observation code)
(C) 99221-99223 (initial inpatient code)
(D) 99234-99236 (same day inpatient admission and discharge code)
(E) 99238-99239 (inpatient discharge code)

Question 1-92
A 57-year-old female with lower extremity edema is evaluated for osteopathic manipulative treatment in the hospital. Pedal-fascial lymphatic pump in this patient is contraindicated in the presence of

(A) congestive heart failure
(B) deep venous thrombosis
(C) paraplegia
(D) pneumonia
(E) renal failure
Question 1-93
An 89-year-old female presents with a twelve-hour history of severe, diffuse abdominal pain. She reports a history of bloody stools since the onset of the pain. She denies a history of constipation. Past medical history is positive for hypercholesterolemia and hypertension. Physical examination reveals markedly diminished bowel sounds and obvious rigidity. Laboratory studies reveal normal amylase and lipase levels. The most likely diagnosis is

(A) acute pancreatitis
(B) biliary obstruction
(C) diverticulitis
(D) ischemic colitis
(E) left-sided colon cancer

Question 1-94
Warfarin (Coumadin®) therapy would be most beneficial to which of the following patients?

(A) 42-year-old female with the recent onset of atrial fibrillation, hypertension, and diabetes
(B) 65-year-old male with atrial fibrillation currently on dialysis
(C) 66-year-old female with atrial fibrillation and congestive heart failure
(D) 76-year-old male with atrial fibrillation and an ischemic stroke
(E) 80-year-old male with atrial fibrillation, diabetes, and congestive heart failure who is hospitalized after falling out of bed

Question 1-95
Which of the following females is most likely menopausal?

(A) 45-year-old with hot flushes, night sweats, abnormal menses, and a decreased low follicle-stimulating hormone level
(B) 45-year-old with hot flushes, night sweats, amenorrhea, and a positive β-HCG
(C) 45-year-old with hot flushes, vaginal dryness, and increased luteinizing hormone and follicle-stimulating hormone levels
(D) 45-year-old with hot flushes, vaginal dryness, and decreased luteinizing hormone and estradiol levels
(E) 54-year-old with hot flushes, vaginal dryness, and decreased luteinizing hormone and estrone levels

Question 1-96
Which of the following combination regimens for type 2 diabetes mellitus is most likely to be complicated by hypoglycemia?

(A) glipizide (Glucotrol®), exenatide (Byetta®), insulin regular (Humulin R®)
(B) metformin (Glucophage®), glipizide (Glucotrol®), insulin glargine (Lantus®)
(C) metformin (Glucophage®), pioglitazone (Actos®), insulin glargine (Lantus®)
(D) metformin (Glucophage®), pioglitazone (Actos®), insulin regular (Humulin R®)
(E) metformin (Glucophage®), sitagliptin (Januvia®), insulin glargine (Lantus®)
Question 1-97
A 53-year-old female presents to the office after finding a lump in her breast on self-examination. She has been consistent with her monthly breast examinations and found the lump two weeks ago. She reports no change in size or consistency since that time. She had her first mammogram at age 40 and annually after that. She denies fatigue, weight loss, and has been menopausal for four years. She discontinued combination hormone therapy last year. On physical examination her breasts appear symmetrical with no skin abnormalities. The nipples are symmetric in size, shape, and color without retraction or discharge. You palpate a small, pea-sized thickening in the upper outer quadrant of the right breast. It is fixed to the deep aspect of the chest wall making it difficult to delineate the borders. Mammography and ultrasound reveal no mass. When your patient returns to discuss her test results, you examine her again. The mass is still palpable. The most appropriate next step in the management of this patient is

(A) breast examination and mammogram every six months
(B) breast examination and mammogram every three months
(C) referral to a surgeon to consider excisional biopsy
(D) return to normal screenings
(E) ultrasound-guided biopsy

Question 1-98
A female patient presents to the office for evaluation of a chronic non-malignant pain. She states that her current opioid medication regimen is no longer as effective as previously and would like an increase in the dose. This is an example of

(A) addiction
(B) narcotic abuse
(C) physical dependence
(D) pseudoaddiction
(E) tolerance

Question 1-99
An 82-year-old female presents to the office for evaluation of memory loss. Past medical history includes hypertension and dyslipidemia. She is currently taking simvastatin (Zocor®) 40 mg daily and hydrochlorothiazide (HydroDIURIL®) 25 mg daily. Vital signs reveal:

- Temperature: 36.4°C (97.5°F)
- Blood pressure: 130/86 mmHg
- Heart rate: 74/min
- Respiratory rate: 16/min

Mini-Mental State Examination score is 20. Which of the following is most likely to confirm a diagnosis of delirium in this patient?

(A) absence of involuntary movements
(B) decrease of more than five points on the Mini-Mental State Examination
(C) insidious onset of memory loss
(D) normal vital signs
(E) visual hallucinations
Question 1-100
A 46-year-old female who is right-handed presents to the office following the recent onset of painful swelling of the proximal and distal interphalangeal joints of her left hand, giving her fingers a distinctively sausage-shaped appearance. Examination reveals irregular ridging and pitting of her fingernails. This patient most likely has an additional history of
(A) dermatologic problems
(B) exertional dyspnea
(C) heat intolerance
(D) peripheral edema
(E) sexually transmitted disease

Question 1-101
A 73-year-old male presents for a periodic evaluation of acute inflammatory arthritis affecting his left wrist. He was initially treated with indomethacin (Indocin®) 50 mg three times daily and has had significant reduction of his symptoms. Laboratory studies from his initial visit revealed a leukocyte count of 10.8 x 10^3/mcL with a left shift, a serum uric acid level of 9.4 mg/dL, and a 24-hour urine uric acid level of 890 mg/24 h. The most appropriate treatment is to counsel this patient regarding conservative dietary habits and
(A) continue the indomethacin (Indocin®) as 75 mg extended-release twice daily
(B) discontinue indomethacin (Indocin®) and initiate allopurinol (Zyloprim®) 100 mg daily
(C) discontinue indomethacin (Indocin®) and initiate fenofibrate (TriCor®) 160 mg daily
(D) discontinue indomethacin (Indocin®) and initiate probenecid (Benemid®) 500 mg daily
(E) discontinue indomethacin (Indocin®) and initiate sulfinpyrazone (Anturane®) 400 mg daily

Question 1-102
A 16-year-old female presents to the office for a preparticipation sports physical examination. Physical examination reveals a thoracolumbar scoliosis. The most appropriate test to quantify the degree of scoliosis is
(A) anteroposterior standing radiographs
(B) lateral radiographs
(C) MRI of the spine
(D) short leg scanogram
(E) supine anteroposterior radiographs

Question 1-103
A 30-year-old male presents with the complaint of back pain that has become worse over the past three months. He reports no recent injury or trauma. Examination reveals that while the patient is supine with his right knee and hip flexed, the left knee comes off the table. The most likely diagnosis is
(A) quadratus lumborum spasm left
(B) piriformis spasm left
(C) piriformis spasm right
(D) psoas spasm left
(E) psoas spasm right
Question 1-104
A 65-year-old female presents with the complaint of headache, visual problems, mental clouding, and pruritus after bathing. She is admitted to the hospital and that evening experiences hemorrhaging from the gastrointestinal tract. Ultrasound reveals a hepatic vein thrombosis. Physical examination reveals a retinal vein occlusion and ruddy cyanosis. Bone marrow examination reveals a hypercellular marrow. The most likely diagnosis is

(A) essential thrombosis
(B) glucose-6 phosphate dehydrogenase deficiency
(C) myelofibrosis
(D) non-Hodgkin lymphoma
(E) polycythemia vera

Question 1-105
Dysfunctional voiding of urine is a diagnosis that has been seen with an increased incidence in which of the following?

(A) antisocial personality disorder
(B) attention deficit disorder
(C) bulimia nervosa
(D) childhood depression
(E) separation anxiety

Question 1-106
A 74-year-old nursing home resident with severe chronic obstructive pulmonary disease has decided not to be intubated currently or in the future, and has written an advance directive to that effect. He has requested hospice care. A few days later he has a sudden decompensation in status with severe dyspnea. The nurse practitioner at the nursing home describes him as mildly cyanotic, breathing at about 40 breaths per minute, gasping, and struggling. Which of the following is the most appropriate next step in the management of this patient?

(A) chest radiograph
(B) emergency transport to the hospital
(C) morphine for respiratory comfort
(D) nasopharyngeal airway
(E) parenteral antibiotics

Question 1-107
A 30-year-old male presents to the office with complaints of low back pain and stiffness that have been worsening over the past two years. The stiffness is worse in the morning, and improves somewhat with nonsteroidal antiinflammatory drugs and exercise. Palpation reveals tenderness over the sacroiliac joints bilaterally, and also reveals that the PSIS, sacral sulcus, and inferior lateral angles are all level. Examination of the lumbar spine reveals tenderness to palpation and decreased lordosis. Past medical history is negative except for chlamydial urethritis ten years ago. The most likely diagnosis is

(A) ankylosing spondylitis
(B) bilateral sacral torsion
(C) fibromyalgia
(D) left-on-right sacral torsion
(E) reactive arthritis
Question 1-108
A 28-year-old gravida 1 para 0-0-0-0 female delivers a large-for-gestational-age neonate after 42 hours of labor. Her labor was augmented with oxytocin (Pitocin®) in an attempt to prevent a cesarean section. Following delivery of the placenta she develops postpartum hemorrhage. The most likely cause of this patient’s delivery complication is

(A) amniotic fluid embolism
(B) coagulation disorder
(C) placenta previa
(D) uterine atony
(E) uterine inversion

Question 1-109
A 19-year-old female presents with the complaint of a vaginal discharge. History reveals that she is sexually active. Physical examination reveals a profuse, milky, nonadherent discharge that demonstrates a fishy odor after alkalization with a drop of KOH. The most appropriate treatment is

(A) butoconazole 2% (Gynazole-1®) 5 g intravaginally for three days
(B) clindamycin (Cleocin®) cream 2% one applicator (5 g) intravaginally at bedtime for three days
(C) fluconazole (Fluconazole®) 150 mg orally in a single dose
(D) metronidazole (Flagyl®) 2 g orally in a single dose
(E) metronidazole (Flagyl®) 500 mg orally twice daily for seven days

Question 1-110
A 35-year-old female with recent bilateral wrist and hand swelling and stiffness presents to the office for a follow up examination. She reports that the stiffness is present for more than one hour in the morning and rates the pain a 4 on a scale of 0 to 10. She has a history of tuberculosis, which was treated in the past. A recent chest radiograph revealed no active disease. She has been taking ibuprofen 800 mg three times a day for the past 12 weeks. Laboratory studies reveal a normal complete blood count and a positive anticyclic citrullinated peptide antibody test. Radiographs of the affected joints are normal without any erosion noted. The most appropriate treatment is

(A) adalimumab (Humira®)
(B) hydrocodone/acetaminophen (Vicodin®)
(C) methotrexate (Trexall®)
(D) naproxen (Naprosyn®)
(E) prednisone (Deltasone®)

Question 1-111
A 3-year-old male is brought to the emergency department with the acute onset of fever, dysphonia, dysphagia, and irritability. History reveals a mild upper respiratory tract infection one week ago. His mother reports that he was not vaccinated due to family religious preference. The most likely etiology is

(A) Bordetella pertussis
(B) Haemophilus influenzae type b
(C) Moraxella catarrhalis
(D) Paramyxovirus
(E) Streptococcus pneumoniae
Question 1-112
A 55-year-old male presents for a new patient examination. History reveals that he has not received medical care for the past ten years. Physical examination reveals a body mass index of 31 kg/m². Two blood pressure measurements in the office average 148/92 mmHg. The most likely diagnosis is

(A) elevated blood pressure without diagnosis of hypertension
(B) essential hypertension
(C) malignant hypertension
(D) mixed hyperlipidemia
(E) unspecified hypertension

Question 1-113
Sarcoidosis affects which of the following systems?

(A) integumentary, pulmonary, ocular, and vestibular
(B) musculoskeletal, pulmonary, ocular, and neurologic
(C) ocular, vestibular, pulmonary, and endocrine
(D) pulmonary, musculoskeletal, ocular, and integumentary
(E) vestibular, pulmonary, musculoskeletal, and endocrine

Question 1-114
A 34-year-old female, who is currently taking oral contraceptives, is diagnosed with deep vein thrombosis and treated with warfarin (Coumadin®) therapy. She questions why she was given heparin, in addition to the warfarin, while hospitalized. The most appropriate response is that, with warfarin (Coumadin®), there is a risk for clotting because of a delay in factor

(A) II prothrombin suppression
(B) V prothrombin suppression
(C) VII prothrombin suppression
(D) IX prothrombin suppression
(E) X prothrombin suppression

Question 1-115
A 50-year-old male with a history of hypertension presents for an annual health maintenance examination. A urinalysis reveals evidence of proteinuria. Further evaluation reveals a glomerular filtration rate of 45 mL/min/1.73 m². Four months later, the studies are repeated and yield the same results. This patient’s chronic kidney disease is classified as stage

(A) 1
(B) 2
(C) 3
(D) 4
(E) 5
Question 1-116
Before graduating and accepting a job, you begin comparing relative value units for different areas of the country. The three factors the Resource Based Relative Value Scale determines prices on are
(A) demand of service, quality of service, and specialty level of care  
(B) effect of care, specialty level of care, and malpractice expense  
(C) professional service performed, practice expense, and malpractice expense  
(D) professional service performed, quality of service, and demand of service  
(E) practice expense, malpractice expense, and quality of service

Question 1-117
In the geriatric patient, loss of balance and stability over time is most likely due to
(A) cerebellar compromise from small strokes and transient ischemic attacks  
(B) decreased cognitive function  
(C) decreased function of visual, labyrinthine, and somatosensory centers  
(D) decreased hormone secretion from thyroid and gonads  
(E) loss of muscle mass with progressive inequity leg length

Question 1-118
A 64-year-old male presents to the office with chronic lumbosacral pain that is aggravated by standing for prolonged periods of time. Spinal radiographs reveal a grade 1 L5-S1 spondylolisthesis. You want to prescribe an exercise program. The most appropriate muscle to stretch that will most effectively decrease compressive forces at the lumbosacral junction is the
(A) erector spinae  
(B) gluteus medius  
(C) psoas major  
(D) quadratus lumborum  
(E) rectus abdominis

Question 1-119
A 41-year-old male is admitted overnight for a urinary tract infection with possible sepsis. Physical examination reveals right-sided flank pain and particularly significant palpable tissue texture abnormality and tenderness, without distinct motion restriction on the right side from T11-L2, which is especially intense at L2. No fever is noted. Laboratory studies reveal hematuria, 2-3 leukocytes, and “too numerous to count” erythrocytes in the urine. The most likely diagnosis is
(A) cystitis  
(B) prostatitis  
(C) pyelonephritis  
(D) ureterolithiasis  
(E) urethritis
Question 1-120
A high cervical spine, vagal, parasympathetic viscerosomatic reflex most likely indicates the presence of genitourinary pathology involving the
(A) distal ureter and bladder
(B) kidney and proximal ureter
(C) ovaries or testicles
(D) prostate and urethra
(E) uterus and proximal fallopian tubes

Question 1-121
Which of the following is a hallmark of a manic episode?
(A) anxiety
(B) depression
(C) hypersomnolence
(D) irritability
(E) psychosis

Question 1-122
Which of the following questions does the “C” represent in the alcohol abuse screening tool CAGE?
(A) Do you care that you are feeling guilty about drinking?
(B) Has anyone ever cautioned you not to drink?
(C) Has anyone ever criticized you about your drinking?
(D) Have you been caught having an “eye opener” in the morning?
(E) Have you ever felt the need to cut down?

Question 1-123
Nephrotic syndrome is characterized by massive proteinuria (>3.5g/24h) and
(A) hyperalbuminemia, edema, and hypertension
(B) hyperalbuminemia, hypertension, and hyperlipidemia
(C) hypoalbuminemia, edema, and hyperlipidemia
(D) hypoalbuminemia, edema, and hypolipidemia
(E) hypoalbuminemia, hypotension, and hyperlipidemia

Question 1-124
A 19-year-old female college student presents to the office with a two-day history of fever, stiff neck, headache, vomiting, and skin rash. On physical examination a positive Brudzinski sign on passive flexion of the neck would most likely cause which of the following?
(A) dorsiflexion of the ankle joints
(B) extension of the hips
(C) extension of the hips and knees
(D) involuntary flexion of the hips and knees
(E) plantar flexion of the ankle joints
Question 1-125
A 56-year-old male is scheduled for colorectal surgery. To prevent a surgical site infection in this patient, antibiotic prophylaxis should be

(A) discontinued 36 hours after the surgery has been completed  
(B) discontinued 48 hours after the surgery has been completed  
(C) initiated three hours before surgical incision if fluoroquinolones are used  
(D) initiated three hours before surgical incision if vancomycin (Vancocin®) is used  
(E) initiated within one hour before surgical incision

Question 1-126
You are called stat to the recovery room to evaluate a postoperative 7-year-old female who is experiencing a rapid rise in temperature to 40.6°C (105.0°F), muscle rigidity, and a markedly increased heart rate and respiratory rate. Which of the following is the most appropriate initial treatment?

(A) active cooling  
(B) high-flow oxygen  
(C) infuse IV dantrolene (Dantrium®)  
(D) monitor the patient on telemetry  
(E) treat tachycardia with IV calcium channel blockers

Question 1-127
A 78-year-old male presents to the office with a 24-hour history of acute right lower quadrant abdominal pain. On examination he appears uncomfortable and has an oral temperature of 37.7°C (99.8°F). Abdominal palpation reveals involuntary guarding throughout his lower abdomen and discrete tenderness is elicited over the tip of the 12th rib on the right. Which of the following is correct regarding this condition in elderly patients?

(A) CT scan is widely used as the imaging of choice  
(B) laparoscopic appendectomy is less beneficial than traditional open appendectomy  
(C) more likely to present for evaluation soon after the onset of symptoms  
(D) perforation and abscess formation are uncommon operative findings  
(E) typically exhibit symptoms of fever and right lower quadrant abdominal pain

Question 1-128
A 14-year-old male presents to the office with the complaint of pain just below the right knee. History reveals that he has been playing basketball for the past two months and has noticed increasing pain with exercise. Physical examination reveals a palpable, bony, tender area below the knee. The most likely diagnosis is

(A) lateral meniscal tear  
(B) medial collateral ligament strain  
(C) patellar tendonitis  
(D) Sever disease  
(E) tibial stress fracture
Question 1-129
A 65-year-old male presents for a health maintenance examination. History reveals that he has worked all his life as a farmer and has not been to a physician in the past 20 years. He reports that his wife took his blood pressure at home and it seemed alarmingly high to her. He brings a log with blood pressures averaging 160/100 mmHg. He has no complaints other than joint aches that he considers normal aches and pains from years of farming. He takes no regular medications. Vital signs reveal a blood pressure of 165/102 mmHg, a heart rate of 70/min, and a respiratory rate of 12/min. Physical examination reveals a body mass index of 24 kg/m². The most appropriate treatment is

(A) amlodipine (Norvasc®) 5 mg daily
(B) clonidine (Catapres®) 0.1 mg three times daily
(C) hydrochlorothiazide (HydroDIURIL®) 12.5 mg daily
(D) lisinopril 10 mg/hydrochlorothiazide (Zestoretic®) 12.5 mg daily
(E) lisinopril (Zestril®) 20 mg daily

Question 1-130
A 21-year-old gravida 2 para 1 female at 23 weeks’ gestation presents to the office for a prenatal examination. History reveals an uneventful prior pregnancy and normal delivery two years ago. She has no risk factors. Blood type is O+ and antibody screen is negative. Sexually transmitted disease testing is negative. She reports that her grandmother has been diagnosed with type 2 diabetes mellitus and asks if she should be tested. Screening for gestational diabetes in this patient should include a/an

(A) 75 g oral glucose tolerance test between 24 and 28 weeks’ gestation
(B) fasting fingerstick and one-hour glucose tolerance test between 24 and 28 weeks’ gestation
(C) glycosylated hemoglobin level at this visit
(D) random fingerstick blood glucose level test at this visit
(E) three-hour glucose tolerance test between 24 and 28 weeks’ gestation

Question 1-131
A 65-year-old female presents to the emergency department with signs of dehydration. Her medicare managed care insurance coverage is for a hospital across town. Which act mandates that the emergency department must stabilize this patient prior to her transfer?

(A) Emergency Medical Treatment and Active Labor Act (EMTALA)
(B) Federal Labor and Safety Act (FLSA)
(C) Federal Stability and Labor Act (FSLA)
(D) Health Insurance Portability and Accountability Act (HIPAA)
(E) Trade Practice Act (DTPA)

Question 1-132
A 12-month-old male is brought to the office with a five-day history of fever that is associated with a diffuse, blotchy, erythematous rash. Physical examination reveals pronounced cervical lymphadenopathy, bilateral conjunctivitis, dry erythematous cracked lips, and swollen hands with peeling skin. The most likely diagnosis is

(A) Kawasaki disease
(B) Lyme disease
(C) Rocky Mountain spotted fever
(D) roseola
(E) scarlet fever
Question 1-133
An 8-year-old female is brought to the office for evaluation of wheezing. Her mother reports that she wheezes daily, but otherwise acts normal. The wheezing does not affect her daily activities. Physical examination is unremarkable and oxygen saturation is 98% on room air. The wheezing is unresponsive to bronchodilator therapy. The most appropriate next step is

(A) barium swallow  
(B) bronchoscopy  
(C) chest radiograph  
(D) CT scan of the chest  
(E) pulmonary function studies

Question 1-134
A 78-year-old female who is 1.6 m (5'4") tall and weighs 44 kg (98 lb) is brought to the office by her daughter, who is concerned about her mother’s weight loss. The patient has lost 12 kg (26 lb) since her spouse died nine months ago. Laboratory studies reveal protein energy malnutrition. She is also diagnosed with depression. In addition to an antidepressant, this patient should be prescribed which of the following to assist her in reaching her ideal body weight?

(A) cyanocobalamin  
(B) cyproheptadine (Periactin®)  
(C) human growth hormone  
(D) megestrol acetate (Megace®)  
(E) oxandrolone (Oxandrin®)

Question 1-135
A 45-year-old female presents with a six-month history of irregular and heavy vaginal bleeding. She cannot identify any particular pattern. She has experienced occasional hot flashes, but does not have menstrual cramping or breast tenderness. She is a tobacco user and had a tubal ligation at the age of 32. Her only medication is hydrochlorothiazide (HydroDIURIL®) for hypertension. Physical examination is normal. Testing reveals a normal complete blood count, thyroid-stimulating hormone, Pap test, and a negative urine pregnancy test. Endometrial biopsy reveals endometrial hyperplasia without atypia. The most appropriate initial treatment is

(A) cyclic estrogen  
(B) cyclic progesterone  
(C) drospirenone/ethinyl estradiol  
(D) ethinyl estradiol/norgestrel  
(E) hysterectomy

Question 1-136
A 55-year-old male presents with the complaint of persistent pain in the medial thigh muscles, neck, and shoulders that began two months ago after a lengthy horseback ride. You prescribe naproxen (Aleve®). At a follow up visit one week later, he reports only minimal improvement from the naproxen (Aleve®). You order an erythrocyte sedimentation rate and start 10 mg of prednisone (Deltasone®) daily. The patient reports the next day that his symptoms completely resolved. The most likely diagnosis is

(A) adductor strain and sprain  
(B) cauda equina syndrome  
(C) delayed onset muscle soreness  
(D) polymyalgia rheumatica  
(E) spinal stenosis
Question 1-137
A 26-year-old male is hospitalized following chronic and acute alcohol intoxication. Medical history is otherwise unremarkable. Two days after his initial hospitalization he becomes agitated, shaky, and complains of the sensation that spiders are crawling all over him. He has been receiving regular care since his hospitalization. The most appropriate next step in this patient's care is

(A) intravenous D50 (dextrose) 1 amp
(B) intravenous thiamin (vitamin B₁) 100 mg
(C) intravenous valproic acid (Depakote®) 100 mg
(D) oral clonidine (Catapres®) 0.1 mg twice daily
(E) oral propranolol (Inderal®) 40 mg twice daily

Question 1-138
Which of the following is correct regarding emergency contraception?

(A) main side effects are nausea and irregular bleeding
(B) only available with a prescription
(C) only effective if given within 24 hours of intercourse
(D) only product specifically approved for emergency contraception in the U.S. is an estrogen-progesterone combination
(E) pregnancy testing must be performed before administration

Question 1-139
A 24-year-old female wishes to become pregnant. History reveals that she has asthma. Regarding her asthma during her pregnancy, she should be informed that

(A) asthma medications are contraindicated in pregnancy
(B) β-adrenergic medications should be avoided in pregnancy since it can cause preterm labor
(C) most medications to control asthma are safe in pregnancy
(D) pregnancy and asthma are a risky combination and she should not get pregnant
(E) use of montelukast sodium (Singulair®) is contraindicated in pregnancy

Question 1-140
A 31-year-old female presents to the office with a two-day history of a painless, red, right eye. She denies any history of trauma. Her visual acuity is 20/25 in the right eye and 20/20 in the left eye. Physical examination is significant for a large subconjunctival hemorrhage in the right eye. The most appropriate next step is

(A) diclofenac (Voltaren®) ophthalmic eye prescription
(B) observation
(C) urgent ophthalmologic referral
(D) workup for coagulopathy
(E) workup for secondary hypertension
**Question 1-141**
According to the Centers for Disease Control and Prevention (CDC), the 2010 recommended first-line treatment for *Chlamydia trachomatis* urogenital infection is

(A) intramuscular ceftriaxone (Rocephin®) 250 mg single dose  
(B) oral azithromycin (Zithromax®) 1 g single dose  
(C) oral erythromycin (Mycin®) 500 mg four times daily for seven days  
(D) oral levofloxacin (Levaquin®) 500 mg twice daily for seven days  
(E) oral ofloxacin (Floxin®) 300 mg twice daily for seven days

**Question 1-142**
The most common cause of vaginal discharge in females presenting to an office setting for care is

(A) bacterial vaginosis  
(B) group B streptococci  
(C) noninfectious cervicitis  
(D) trichomoniasis  
(E) vaginal candidiasis

**Question 1-143**
A 15-year-old male presents to the office for a periodic evaluation of his attention deficit hyperactivity disorder medications. He reports difficulty in school and admits that he was recently treated in the emergency department for acute alcohol intoxication. This patient should be screened for

(A) anxiety  
(B) depression  
(C) diabetes  
(D) hypothyroidism  
(E) psychosis

**Question 1-144**
A 17-year-old female presents to the office as a new patient. She states that she recently moved into the area, has no friends, and is having a hard time adjusting to her new school. She has noted a decreased appetite but no weight loss, reports no difficulty sleeping, but does state that she has a hard time concentrating on her homework. Physical examination is unremarkable. The most appropriate treatment to initiate in this patient is

(A) a benzodiazepine  
(B) a selective serotonin reuptake inhibitor  
(C) cognitive behavioral therapy  
(D) hypnotherapy  
(E) physical therapy

**Question 1-145**
A 15-year-old female is diagnosed with moderate depression. A program of behavioral therapy and pharmacologic intervention is discussed. It is determined that a trial of fluoxetine (Prozac®) will benefit this patient. Which of the following is a common adverse side effect of this class of medication?

(A) ataxia  
(B) decreased perspiration  
(C) decreased urination  
(D) drowsiness  
(E) insomnia
Question 1-146
A 45-year-old male presents to the office for evaluation of a blood glucose level of 180 mg/dL. Past medical history is remarkable for type 2 diabetes mellitus. Current medication includes maximum doses of metformin (Glucophage®). He reports exercising most days of the week and following a prescribed diet, but his body mass index remains at 30 kg/m². The most appropriate recommendation to help this patient achieve his glycemic goals, lose weight, and avoid hypoglycemia is to

(A) begin a long-acting basal insulin once daily
(B) begin a short-acting insulin with meals
(C) continue lifestyle modification
(D) prescribe a GLP-1 analog
(E) prescribe a sulfonylurea

Question 1-147
According to the Joint Commission guidelines, a patient with Medicare as the primary insurer who is admitted to a nursing home from a hospital has to be seen by the attending physician within how many hours of admission?

(A) 24
(B) 48
(C) 72
(D) 96
(E) 120

Question 1-148
A 24-year-old elementary school teacher presents to the office for evaluation of what she describes as depression. She states that she feels down during the winter months, denies any traumatic experiences around the holidays, and is otherwise fine the rest of the year. Sleep patterns are normal and thyroid function is normal. Which of the following is the most appropriate next step in treating this patient?

(A) counseling
(B) oral melatonin
(C) phototherapy
(D) selective serotonin reuptake inhibitor
(E) St. John’s Wort

Question 1-149
A 27-year-old male requests medication for anxiety before taking a six-hour plane flight across the country. Physical examination reveals an anxious male with an otherwise normal judgment, memory, and mood. He presents for follow up and reports no episodes of anxiety during the flight and that he only needed two of the six pills prescribed. He admits to using the remaining pills before giving presentations at work in front of his colleagues because he did not want to appear anxious and diaphoretic. The most likely diagnosis is

(A) adjustment reaction
(B) attention deficit disorder
(C) malingering
(D) medication addiction
(E) panic disorder
Question 1-150
The point of a hospitalized patient’s care where most medical errors are noted occurs at the time of

(A) medicine reconciliation
(B) patient admission to the hospital
(C) patient discharge from the hospital
(D) sign out or hand off between physicians
(E) the initial nurse visiting once admitted

Question 1-151
In treating a hospice patient with metastatic breast cancer, both long-acting and short-acting morphine is being given to control pain. The dose of morphine causes the patient to stop breathing, and she subsequently dies. Which of the following accurately describes this scenario?

(A) double effect
(B) homicide
(C) medical malpractice
(D) nursing error
(E) unintentional overdose

Question 1-152
A 54-year-old female presents to the office for a health maintenance examination. Surgical history is significant for a cervical loop electrosurgical excision procedure five years ago for CIN III. She has had no evidence of recurrence of CIN on any of her follow-up examinations. Based on the 2012 ACS/ASCCP/ACP cervical cancer screening guidelines, the most appropriate recommendation for this patient for cervical cancer screening is to have a Pap test

(A) and high risk human papillomavirus (HPV) testing every five years until age 69
(B) and high risk human papillomavirus (HPV) testing every five years until age 75
(C) every three years until age 75
(D) every two years until age 60
(E) every two years until age 65

Question 1-153
A 19-year-old female presents to the office with a two-week history of vaginal discharge and pain on urination. She admits to being sexually active with multiple male partners and that her partners did not always use condoms. You suspect a sexually transmitted disease and order the appropriate testing. Which of the following would be the most likely infectious disease based on both her symptoms and statistics on reportable sexually transmitted diseases in this patient’s age group?

(A) chlamydia
(B) gonorrhea
(C) herpes simplex
(D) syphilis
(E) trichomoniasis
Question 1-154
The Centers for Disease Control and Prevention (CDC) advises administering the tetanus, diphtheria, pertussis (Tdap) booster vaccination to all pregnant females during each pregnancy. At what time during the pregnancy is it most optimal to administer the vaccine?

(A) 2-8 weeks’ gestation
(B) 9-16 weeks’ gestation
(C) 17-26 weeks’ gestation
(D) 27-36 weeks’ gestation
(E) greater than 36 weeks’ gestation

Question 1-155
A patient presents with a DXA scan T-score of -2.2. This patient’s score correlates with a diagnosis of

(A) normal bone density
(B) osteitis desiccans
(C) osteogenesis imperfecta
(D) osteopenia
(E) osteoporosis

Question 1-156
A 10-year-old male child is brought to the office with complaints of extreme fatigue, joint pain and inflammation for the past seven weeks, a high intermittent fever, a faint salmon-colored nonpruritic skin rash, swelling of the lymph glands, and hepatosplenomegaly. The patient’s mother states that her son enjoys hiking and playing in the woods. A complete blood count reveals a markedly elevated leukocyte count. Additional blood tests reveal an elevated erythrocyte sedimentation rate, a negative rheumatoid factor, and antinuclear antibodies. The most likely diagnosis is

(A) rheumatoid arthritis
(B) Rocky Mountain spotted fever
(C) Still disease
(D) systemic lupus erythematosus
(E) viral exanthem

Question 1-157
A 67-year-old male is admitted to the hospital with shortness of breath. Past medical history reveals diet-controlled diabetes mellitus, erectile dysfunction, and chronic obstructive pulmonary disease. He does not take any medications. Vital signs reveal a temperature of 37.0°C (98.6°F) and a blood pressure of 146/92 mmHg. Physical examination reveals bilateral crackles at the lung bases and 2+ edema in the extremities. Chest radiograph reveals an enlarged heart, pulmonary vascular congestion, and effusions. An echocardiogram demonstrates an enlarged left ventricle with an ejection fraction of 40%. The patient’s symptoms improve with diuresis. Which of the following medications should be added to this patient’s regimen to most appropriately treat this new diagnosis?

(A) aspirin and amlodipine (Norvase®)
(B) carvedilol (Coreg®) and lisinopril (Prinivil®)
(C) hydrochlorothiazide (HydroDIURIL®) and metoprolol (Lopressor®)
(D) spironolactone (Aldactone®) and digoxin (Lanoxin®)
(E) warfarin (Coumadin®) and hydralazine (Apresoline®)
Question 1-158
A 36-year-old female presents with episodes of weight loss and weight gain since late adolescence. She eats large amounts of food in short periods of time and then exercises excessively in an attempt to lose the weight. Her body mass index is 29 kg/m². The most appropriate therapy for this patient is

(A) cognitive behavioral therapy
(B) fluoxetine (Prozac®)
(C) hospitalization with dietary management
(D) interpersonal therapy
(E) paroxetine (Paxil®)

Question 1-159
A 19-year-old female presents with a two-day history of lower abdominal pain. Physical examination reveals discolored urine and dysuria. A urinalysis reveals the presence of white blood cells and gram-negative bacteria. The most likely causative organism is

(A) Clostridia difficile
(B) Escherichia coli
(C) Klebsiella pneumoniae
(D) Proteus mirabilis
(E) Staphylococcus aureus

Question 1-160
A 24-year-old primigravida female is in labor. Examination reveals that her cervix is currently at 6 cm. An external fetal monitor is producing a heart rate tracing. Which of the following findings on the fetal heart rate tracing alone would most likely be associated with fetal hypoxia?

(A) decreased variability
(B) early deceleration
(C) fetal tachycardia
(D) late deceleration
(E) variable deceleration

Question 1-161
A 23-year-old gravida 2 para 1 female is noted to be in labor at 39 4/7 weeks’ gestation determined by a certain last menstrual period. She was noted to have a marginal placenta at an ultrasound done at 24 weeks’ gestation. A follow-up ultrasound at 36 weeks’ gestation showed the placenta at 2 cm from the cervical os. She has not had any bleeding during the pregnancy and the fetal heart rate shows excellent rate and variability. Which of the following diagnostic or treatment options should you consider in the peripartum period given this patient’s condition?

(A) an immediate operative delivery is indicated
(B) avoid digital cervical checks
(C) check the patient for cocaine use, as this is a risk factor for the condition
(D) expectant vaginal delivery is recommended
(E) regional anesthesia should be avoided because increased blood loss is possible
Question 1-162
A 50-year-old male presents for follow up on his lipid panel. Medical history is significant for a five-year history of hypertension and diabetes and a ten-year history of hypothyroidism. He smokes cigarettes and drinks alcohol occasionally. His brother had a stent placement at 49 years of age. He has had elevated cholesterol levels that have not responded to diet and exercise. Current medications include losartan (Cozaar®) 50 mg daily, levothyroxine (Synthroid®) 25 mcg daily, and glipizide/metformin (Metaglip®) 2.5/500 mg two tablets twice daily. Laboratory studies reveal:

<table>
<thead>
<tr>
<th>Test</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Creatinine</td>
<td>0.8 mg/dL</td>
</tr>
<tr>
<td>Glycosylated hemoglobin</td>
<td>8%</td>
</tr>
<tr>
<td>Potassium</td>
<td>4.9 mEq/L</td>
</tr>
<tr>
<td>Alanine aminotransferase</td>
<td>20 U/L</td>
</tr>
<tr>
<td>Aspartate aminotransferase</td>
<td>28 U/L</td>
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<tr>
<td>Total cholesterol</td>
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<tr>
<td>HDL cholesterol</td>
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<tr>
<td>LDL cholesterol</td>
<td>153 mg/dL</td>
</tr>
<tr>
<td>Triglycerides</td>
<td>550 mg/dL</td>
</tr>
<tr>
<td>VLDL cholesterol</td>
<td>65 mg/dL</td>
</tr>
</tbody>
</table>

Which part of this patient’s lipid panel needs should be addressed initially?

| HDL cholesterol | LDL cholesterol | Total cholesterol | *triglycerides | VLDL cholesterol |

Question 1-163
A 46-year-old female presents to the office for treatment of her general anxiety disorder. She reports that she has only tried alprazolam (Xanax®), 1 mg a day as needed, to control her symptoms. She is not happy with this treatment and states that the sedation, after taking it, is interfering with her job. She would like to discuss her treatment options with you. You recommend sertraline (Zoloft®) and inform her that she can most likely expect which of the following side effects with a drug from this class of medication?

(A) constipation, confusion, euphoria, and sexual dysfunction
(B) euphoria, withdrawal on discontinuation, tinnitus, and vomiting
(C) headaches, vision changes, vivid dreams, and increase libido
(D) nausea, vomiting, tinnitus, and paralysis of extremities
(E) sexual dysfunction, nausea, diarrhea, insomnia, and withdrawal on discontinuation

Question 1-164
A 25-year-old female presents to the office for a health maintenance examination. Her blood pressure is 150/95 mmHg, which is confirmed on several visits as well as home blood pressure monitoring. She is not taking any prescription or over-the-counter medications or supplements. Her social history is noncontributory, and she has no past medical problems except for obesity. Her physical examination is unremarkable, except for a right-sided flank bruit. The most appropriate initial imaging study to confirm this patient’s condition is

(A) plain film radiographs of the abdomen
(B) CT scan of the kidneys
(C) captopril renogram
(D) renal ultrasound
(E) intravenous pyelogram

Question 1-165
A 6-year-old male is brought to the office by his parents for evaluation of arthralgias, abdominal pain, palpable reddish-purple lesions, and hematuria for the past couple of weeks. Physical examination reveals palpable
reddish-purple lesions on the lower extremities and buttocks. A skin biopsy demonstrates leukocytoclastic vasculitis with a predominance of IgA deposition. The most likely diagnosis is

(A) acute hemorrhagic edema of infancy  
(B) Henoch-Schönlein purpura  
(C) hypersensitivity vasculitis  
(D) Still disease  
(E) Wegener granulomatosis

**Question 1-166**
A 56-year-old male presents to the office for evaluation of microscopic hematuria. He is on lisinopril (Prinivil®) for hypertension, which is well controlled. He has no other health conditions and the hematuria is asymptomatic. The past three urine specimens have revealed 5-10 erythrocytes/HPF on urinalysis. The most appropriate next step in the evaluation of this patient’s hematuria is

(A) helical CT scan and cystoscopy  
(B) intravenous urogram  
(C) laparoscopy  
(D) repeat urinalysis in three to six months  
(E) ultrasound of the prostate

**Question 1-167**
A mother presents to the office with her 1-year-old and 5-year-old for their annual health maintenance examinations. Her 1-year-old daughter weighs 8.8 kg (19 lb, 8oz), and her 5-year-old son weighs 21.7 kg (48 lb). The most appropriate recommendation for the mother regarding car seats for her children is that her car should have a/an

(A) forward facing child safety seat with a harness  
(B) infant seat which can now face forward  
(C) infant seat which can now face forward and a child booster seat  
(D) rear facing infant seat  
(E) rear facing infant seat and a child booster seat

**Question 1-168**
A 55-year-old female presents to the office for a breast cancer consultation as her father’s aunt was just diagnosed with metastatic breast cancer. She is postmenopausal and does not smoke. History is significant for hypertension that has been well controlled on hydrochlorothiazide for the past two years, and a low-salt diet. Her last visit for a health maintenance examination was four months ago, at which time she had an unremarkable pap test, and her last mammogram eight months ago was normal. After performing a physical examination, the most appropriate recommendation for this patient based on the US Preventive Service Task Force regarding breast cancer includes which of the following?

(A) as this patient has a relative with breast cancer, she is at moderate to high risk and should start chemoprevention  
(B) as this patient has an increased risk, she should have a screening breast MRI  
(C) as this patient is at no additional risk, she should have annual mammograms and routine medical visits  
(D) as this patient is at no additional risk, she should have biennial mammograms and annual routine medical visits  
(E) as this patient is postmenopausal, she is at moderate to high risk and should start chemoprevention
Question 1-169
You have been asked by your partner to consult on a 45-year-old female patient with complaints of generalized pain and depression. She has been followed by your partner for this condition for over six months, and regardless of nonsteroidal antiinflammatory drugs or selective serotonin reuptake inhibitors, her complaints of pain and depression have not been relieved. She states that over the past week she has had pain at both shoulders and upper arms, across her chest and abdomen, at both of her hips, and thighs and lower legs bilaterally. She additionally complains of fatigue, occasional dizziness, nervousness, ringing in her ears, dry mouth, and decreased appetite. After performing a physical examination, the most appropriate recommendation to your partner is to

(A) begin the patient on a narcotic pain reliever
(B) begin the patient on an aerobic exercise regimen
(C) order a CT scan of the head
(D) order a erythrocyte sedimentation rate, complete blood count, and basic metabolic panel
(E) order a sleep study

Question 1-170
You are part of your institution’s patient safety committee. The case of the month is that of a patient with dementia who wandered away from the waiting area of your clinic after checking in for his hospital discharge follow-up appointment. He was found by the local police within a quarter mile of the clinic, but the administration has asked the committee to draft guidelines to prevent this from occurring again. This is the third occurrence of a wandering, disoriented patient within the past six months. After consideration, the patient safety committee is most likely to recommend which of the following to the administration?

(A) all offices will have a “greeter” in the waiting room who will monitor all patients while they wait for their office visit
(B) all patients are to be given restaurant style pagers to “call them” back to the waiting room
(C) all patients with a history of dementia must be accompanied to their office visits by a family member or guardian to make sure the patient does not wander off
(D) all patients with a history of dementia will have a patient navigator or family member accompany them and re-evaluate in six months to see if there is a decrease in incidents
(E) all patients with a history of dementia will have physician home visits from now on to avoid any patient harm from potential wandering

Question 1-171
Your hospital is offering health screenings to the public, and you as a resident will be participating and counseling patients as needed. As part of the screenings, based on recommendations from the US Preventive Services Task Force, which of the following is correct?

(A) adult males should not be routinely screened with prostate-specific antigen for prostate cancer
(B) adults should be routinely screened for oral cancer
(C) adults with hypertension do not need to be routinely screened for type 2 diabetes mellitus
(D) females should be routinely screened for hyperlipidemia at 40 years of age and males should be routinely screened at 30 years of age
(E) females should be routinely screened for ovarian cancer by testing for the BRCA gene
Question 1-172
A 37-year-old female presents to the office for a health maintenance examination. A Pap test (cytology) and specimen to test for high-risk human papillomavirus (HPV) are obtained. History reveals no previous abnormal Pap smears. The result of her cytology shows her Pap test to be negative for intraepithelial abnormality and positive for high-risk HPV. According to the April 2013 consensus guidelines published by the American Society for Colposcopy and Cervical Pathology (ASCCP), this patient should

(A) repeat high-risk HPV testing in 1 year
(B) repeat Pap test (cytology) and high-risk HPV testing (co-testing) in 1 year
(C) repeat Pap test (cytology) in 1 year
(D) repeat Pap test (cytology) in 6 months
(E) undergo a colposcopy

Question 1-173
A 48-year-old gravida 4 para 2 female presents with a three-month history of irregular menses characterized by daily spotting heavy enough that she has to wear a pad. She also reports experiencing night sweats and vaginal dryness. Past medical history is significant for type 2 diabetes mellitus, hypertension, and morbid obesity. Her last normal menses was six months ago. She reports that she has been in a monogamous relationship for the last 12 years. Pelvic examination is normal. Pregnancy test in the office is negative. The most appropriate next step in this patient’s management is

(A) counseling regarding the perimenopausal period
(B) endocervical biopsy
(C) endometrial biopsy
(D) hysterectomy
(E) prescription for medroxyprogesterone (Provera®)

Question 1-174
Which of the following is correct regarding atypical squamous cells of undetermined significance (ASC-US)?

(A) repeat Pap smear in six months
(B) should be managed by colposcopically-directed biopsy
(C) should be managed by endocervical curettage
(D) should be managed by endometrial biopsy
(E) test for high-risk human papillomavirus (HPV) DNA

Question 1-175
A 27-year-old male presents with a two-week history of bilateral maxillary sinus tenderness, cough, and perversion of taste and smell. He reports that he had a root canal six weeks ago and was treated with oral amoxicillin (Amoxil®) 500 mg twice daily for seven days. The most appropriate anti-infective treatment at this time would be

(A) amoxicillin (Amoxil®)
(B) azithromycin (Azithromycin®)
(C) doxycycline (Vibramycin®)
(D) moxifloxacin (Avelox®)
(E) trimethoprim-sulfamethoxazole (Bactrim®, Septra®)
Question 1-176
A 60-year-old female with a history of hypertension and arthritis presents for evaluation of an elevated blood pressure. Current medications include hydrochlorothiazide (HydroDIURIL®) and naproxen (Naprosyn®). You decide to add an ACE inhibitor. She presents two weeks later and laboratory studies reveal a rise in the creatinine level from 1.0 mg/dL to 1.2 mg/dL. The most appropriate next step is to

(A) change naproxen (Naprosyn®) to celecoxib (Celebrex®)
(B) change naproxen (Naprosyn®) to meloxicam (Mobic®)
(C) decrease fluids
(D) discontinue nonsteroidal antiinflammatory drugs
(E) discontinue the ACE inhibitor

Question 1-177
A 35-year-old female undergoing treatment for depression expresses anger and hostility toward her husband during a clinic visit. She states repeatedly that her husband is constantly nagging her and that she is so tired of his complaints that she wants to kill him. She reveals that she has fantasized about stabbing him to death while he sleeps. You are concerned that this patient poses a threat to her husband. Your best course of action would be to

(A) preserve confidentiality by counseling only the patient
(B) preserve confidentiality only if the patient signs a contract that she will not harm her husband
(C) warn the husband only after the patient has signed a release
(D) violate confidentiality by discussing the case with a consulting psychiatrist
(E) violate confidentiality by informing the police and the patient’s husband

Question 1-178
The presenting problem for a 99213 visit will most likely involve

(A) an abrupt neurologic status change such as a transient ischemic attack or seizure
(B) an acute uncomplicated injury
(C) exacerbation of one chronic illness, two or more stable chronic illnesses, a new problem with an uncertain diagnosis such as a breast lump or back pain, an acute illness with systemic symptoms, or an acute complicated injury
(D) one stable chronic illness, two or more self-limited illnesses, or an acute uncomplicated illness
(E) severe exacerbation of one or more chronic illnesses or a severe side effect of treatment, an illness posing a threat to life or function, or an abrupt neurologic status change such as a transient ischemic attack or seizure

Question 1-179
When using the “ABCDE” mnemonic to evaluate a pigmented skin lesion, what does the “D” represent?

(A) degree of darkness of pigmentation
(B) depth of the lesion
(C) diameter of the lesion
(D) distribution of the lesion
(E) duration of the lesion
Question 1-180
A 29-year-old female presents to the office with her husband for evaluation of a one-year history of feeling blue with crying spells and a loss of interest in daily activities. At times, but not for the past two weeks, she reports having more energy, staying up all night cleaning, and have racing thoughts. She also reports experiencing impulsivity and an increased appetite. Physical examination is unremarkable. Laboratory studies are normal. The most appropriate first-line treatment for this patient is

(A) aripiprazole (Abilify®)
(B) diazepam (Valium®)
(C) fluoxetine (Prozac®)
(D) haloperidol (Haldol®)
(E) lithium (Eskalith®)

Question 1-181
Which of the following classes of antihypertensive drugs is most likely to cause angioneurotic edema?

(A) ACE inhibitors
(B) α-blockers
(C) β-blockers
(D) calcium channel blockers
(E) thiazide diuretics

Question 1-182
A 56-year-old female presents to the office for a health maintenance examination. She is concerned because her younger sister recently suffered a myocardial infarction. She states that she eats a healthy, low-fat diet, is a nonsmoker, and exercises most days of the week. Vital signs are normal, with a blood pressure of 118/72 mmHg. Laboratory studies reveal:

- Total cholesterol: 216 mg/dL
- HDL cholesterol: 65 mg/dL
- LDL cholesterol: 151 mg/dL
- Triglycerides: 178 mg/dL

According to Adult Treatment Panel (ATP3) guidelines, the most appropriate recommendation for cholesterol treatment is

(A) high-dose statin therapy and therapeutic lifestyle changes
(B) niacin (Niaspan®) and omega-3 fish oils
(C) red yeast rice and therapeutic lifestyle changes
(D) statin therapy, fibrate therapy, and therapeutic lifestyle changes
(E) therapeutic lifestyle changes only

Question 1-183
A 72-year-old male with a history of alcoholism is admitted to the hospital with delirium and acute pancreatitis. After two days with nothing by mouth and only limited improvement in his pancreatitis and delirium, a decision is needed on artificial nutrition and hydration. The most appropriate intervention at this time is to

(A) continue with intravenous hydration and electrolyte monitoring
(B) obtain central venous access and begin total parenteral nutrition
(C) place a nasogastric feeding tube for the duration of his hospitalization
(D) prepare for immediate jejunostomy tube placement
(E) utilize peripheral intravenous access only to provide partial parenteral nutrition
**Question 1-184**

A 45-year-old female presents with a three-day history of fever and malaise. She reports that today she became jaundiced. She is the mother of two children and works in a daycare setting where several of the children have had episodes of gastroenteritis. The most appropriate serology to order for this patient is

(A) HAAsAg
(B) HBcAg
(C) HBsAg
(D) IgG anti-HAV
(E) IgM anti-HAV

**Question 1-185**

A 58-year-old male with a history of several medical conditions is diagnosed with cellulitis of his lower extremities. Due to multiple drug allergies you decide to treat the patient with ciprofloxacin (Cipro®). After reviewing his medication list, which of the following medications should be discontinued or used in an alternative dosing schedule to avoid decreased bioavailability of the fluoroquinolones?

(A) digoxin (Lanoxin®)
(B) hydrochlorothiazide (HydroDIURIL®)
(C) paroxetine (Paxil®)
(D) sucralfate (Carafate®)
(E) verapamil (Calan®)

**Question 1-186**

A 31-year-old homosexual male presents with a one-week history of fever, inguinal pain, headaches, and stomach cramps. Physical examination reveals inguinal lymphadenopathy and bilateral painful ulcerations. The patient admits to unprotected sex one month ago. A complement fixation test is positive. The most likely diagnosis is

(A) chancroid
(B) granuloma inguinale
(C) herpes simplex virus
(D) lymphogranuloma venereum
(E) syphilis

**Question 1-187**

A 33-year-old male visiting from Indonesia presents with a sore throat and a low-grade fever for the past two days. Physical examination reveals adherent, grayish pharyngeal exudates. Bleeding occurs when you attempt to remove the exudates. The most likely causative organism is

(A) *Streptococcus pyogenes*
(B) *Corynebacterium diphtheriae*
(C) Coxsackie A virus
(D) *Haemophilus influenzae*
(E) Epstein-Barr virus
**Question 1-188**
A 45-year-old female with type 2 diabetes mellitus presents with a blood pressure of 135/85 mmHg. Laboratory studies reveal a serum creatinine level of 0.8 mg/dL, an estimated glomerular filtration rate greater than 60 mL/min/1.73 m², and a glycosylated hemoglobin of 6.5%. Urinalysis reveals an albumin/creatinine ratio of 100 on two occasions. Her only medication is metformin (Glucophage®) 850 mg twice a day. The most appropriate treatment for this patient is to

(A) add a low dose of long-acting insulin  
(B) begin amlodipine (Norvasc®) 5 mg/day  
(C) begin enalapril (Vasotec®) 5 mg/day  
(D) continue current treatment and re-evaluate in three months  
(E) increase metformin (Glucophage®) dosage

**Question 1-189**
A 44-year-old male had been given two different medication families for major depression, but he experienced intolerable side effects from both medications. You place him on a third medication, and he complains of dry mouth, constipation, and urinary hesitancy. Which of the following is the medication that was most recently added?

(A) amitriptyline (Elavil®)  
(B) buspirone (BuSpar®)  
(C) diazepam (Valium®)  
(D) paroxetine (Paxil®)  
(E) pregabalin (Lyrica®)

**Question 1-190**
A 6-month-old male is brought to the office with a temperature of 39.4°C (103.0°F) and upper respiratory symptoms of three days’ duration. He is noted to have a bulging erythematous nonmobile tympanic membrane. He is not in daycare and this is his first episode of otitis media. There are no smokers at home. The most appropriate treatment is

(A) amoxicillin (Amoxil®)  
(B) amoxicillin-clavulanate (Augmentin®)  
(C) azithromycin (Zithromax®)  
(D) cephalexin (Keflex®)  
(E) trimethoprim-sulfamethoxazole (Bactrim®, Septra®)

**Question 1-191**
The most appropriate pharmacologic treatment for children with enuresis is

(A) atomoxetine (Strattera®)  
(B) bupropion (Wellbutrin®)  
(C) desmopressin (DDAVP®)  
(D) fluoxetine (Prozac®)  
(E) valproic acid (Depakote®)
Question 1-192
A 45-year-old male presents with a one-week history of nonproductive cough and exertional dyspnea. On physical examination he is afebrile. Palpation reveals tenderness of his right scapular region. Auscultatory findings are significant for decreased breath sounds and tactile fremitus at the right base. PA and lateral chest radiographs are obtained, as shown in exhibit 1 and exhibit 2 (next page). The most likely diagnosis is
(A) disseminated miliary tuberculosis
(B) postobstructive miliary pneumonic process
(C) right lower lobe pneumonia
(D) right pleural effusion
(E) subpulmonic effusion

Question 1-193
A 19-year-old female found wandering the streets at 3:00 AM is brought to the emergency department via EMS. She is agitated and disoriented. Vital signs reveal:

- Temperature: 38.4°C (101.2°F)
- Blood pressure: 140/90 mm Hg
- Heart rate: 162/min and regular
- Respiratory rate: 22/min

She has a prescription bottle of propylthiouracil in her purse. The most appropriate treatment for this patient is
(A) propranolol (Inderal®), propylthiouracil, and acetaminophen (Tylenol®)
(B) propranolol (Inderal®), methimazole (Tapazole®), and aspirin (Ecotrin®)
(C) levothyroxine (Synthroid®), propranolol (Inderal®), and aspirin (Ecotrin®)
(D) levothyroxine (Synthroid®), albuterol (Ventolin®), and acetaminophen (Tylenol®)
(E) methotrexate (Trexall®), celecoxib (Celebrex®), and warfarin (Coumadin®)

Question 1-194
An 18-month-old female presents for a follow-up examination after being diagnosed with otitis media one week ago. Her current medical history is normal and her examination is now normal. You notice that she has not yet received either the measles, mumps, rubella (MMR) or varicella vaccines. The child’s mother is pregnant and had chickenpox as a child. The most appropriate action to take regarding the child’s vaccines would be to
(A) administer both MMR and varicella vaccines now
(B) administer MMR now and withhold varicella vaccine until the child’s mother completes her pregnancy
(C) administer varicella vaccine now and withhold MMR until the child’s mother completes her pregnancy
(D) withhold both MMR and varicella vaccines until the child completes her antibiotics
(E) withhold both MMR and varicella vaccines until the child’s mother completes her pregnancy

Question 1-195
A 19-year-old female has been receiving scheduled injections of medroxyprogesterone acetate (Depo-Provera®) for the last three years for birth control. She may be at increased risk for
(A) anxiety
(B) electrolyte imbalance
(C) endocervical cancer
(D) endometriosis
(E) osteoporosis
A 5-year-old adopted male is brought to the emergency department by his new parents with the abrupt and rapidly progressing onset of a sore throat, dysphagia, drooling, distress during inspiration, and a high fever. The parents state that their son has a “hot potato” voice and is being restless and irritable. Immunization history is unknown. On physical examination, the child appears toxic. Pooled secretions in the oral cavity, pharyngeal inflammation, and anterior neck tenderness are noted. A soft tissue lateral neck radiograph is positive for a “thumb sign.”

**Question 1-196**
The most likely diagnosis is

(A) Diphtheria  
(B) hereditary angioedema  
(C) laryngotracheitis  
(D) peritonsillar abscess  
(E) supraglottitis

**Question 1-197**
The most likely underlying etiology for this patient’s condition is

(A) *Corynebacterium diphtheriae*  
(B) *Haemophilus influenzae* type b  
(C) genetic predisposition  
(D) parainfluenza virus type 1  
(E) *Streptococcus pyogenes*

A 24-month-old male is brought to the emergency department by his parents with the gradual onset of nasal irritation, congestion, and coryza over the last few days. He has been able to eat a little without any problems. His parents state that in the last 24-36 hours his symptoms have progressed to include a fever, barking cough, and stridor. On physical examination the child exhibits increased respiratory effort and stridor. A posterior-anterior chest radiograph demonstrates a “steeple sign.”

**Question 1-198**
The most likely diagnosis is

(A) acute angioneurotic edema  
(B) acute epiglottitis  
(C) foreign body aspiration  
(D) laryngotracheitis  
(E) peritonsillar abscess

**Question 1-199**
The most likely underlying etiology for this patient’s condition is

(A) allergic reaction  
(B) foreign body  
(C) *Haemophilus influenzae* type b  
(D) parainfluenza virus type 1  
(E) *Streptococcus pyogenes*
A 26-year-old gravida 1 para 0 female at 39 weeks’ gestation presents to the hospital in early labor. Past medical history reveals that she was treated early in her pregnancy for a group B streptococci (GBS) urinary tract infection. She has an undetectable rubella titer and a negative hepatitis B surface antigen.

**Question 1-200**
The most appropriate response to this patient’s GBS history is

(A) GBS antibody titer  
(B) intravenous levofloxacin (Levaquin®)  
(C) intravenous penicillin (Pen-VK®)  
(D) urine GBS culture  
(E) vaginal GBS culture

**Question 1-201**
Which of the following is the most appropriate response to this patient’s rubella status?

(A) rubella immune globulin prior to delivery  
(B) rubella immunization following delivery  
(C) rubella immunization one month and six months postpartum  
(D) rubella vaccination after the neonate is one year of age  
(E) rubella vaccination is contraindicated in all females of childbearing age

A 22-year-old male presents with a three-week history of pruritus of the scalp. He has tried numerous over-the-counter dandruff shampoos with minimal benefit. Examination reveals scalp line inflammation with greasy scaling.

**Question 1-202**
The most likely diagnosis is

(A) contact dermatitis  
(B) eczema  
(C) psoriasis  
(D) seborrheic dermatitis  
(E) tinea capitis

**Question 1-203**
The most appropriate initial treatment for this patient is

(A) ammonium lactate (Lac-Hydrin®) lotion  
(B) griseofulvin (Gris-PEG®) oral  
(C) ketoconazole (Nizoral®) shampoo  
(D) oxiconazole (Oxistat®) shampoo  
(E) tazarotene (Tazorac®) lotion
A 52-year-old female with type 2 diabetes mellitus is evaluated for peripheral neuropathy during a periodic diabetes visit. She denies foot pain or numbness. Her only medication is glyburide (Diabeta®) 20 mg daily. Vital signs reveal a blood pressure of 120/78 mmHg. Laboratory studies reveal a glycosylated hemoglobin of 7.8%. Monofilament testing of five sites on each foot reveals that she lacks sensation at one site on each foot.

**Question 1-204**
The most appropriate next step for this patient is to

(A) consult a neurologist
(B) obtain a serum sample for somatostatin
(C) obtain an MRI of the lumbar spine
(D) perform a full foot examination at each visit
(E) repeat filament testing at each quarterly visit

**Question 1-205**
Which of the following treatment additions is most likely to retard progression of the neuropathy?

(A) clopidogrel (Plavix®)
(B) enalapril (Vasotec®)
(C) gabapentin (Neurontin®)
(D) losartan (Cozaar®)
(E) *metformin (Glucophage®)

A 24-year-old female presents to the office for evaluation of a lesion on her arm that has been present for the past several months. She states that it is growing and easily bleeds. Physical examination reveals the findings shown in exhibit 1 and exhibit 2 (next page).

**Question 1-206**
The most likely diagnosis is

(A) basal cell carcinoma
(B) eruptive larva migrans
(C) nodular melanoma
(D) pyogenic granuloma
(E) seborrheic keratosis

**Question 1-207**
The most appropriate treatment is

(A) curettage and electrodesiccation
(B) excisional biopsy with 0.5-cm margins
(C) incisional biopsy
(D) referral for Mohs surgery
(E) topical fluorouracil (Adrucil®)
A 21-year-old female basketball player presents to the emergency department after “twisting” her ankle. She describes the ankle “rolling in” at the time of the injury. She reports pain but is able to ambulate without assistance. Physical examination reveals no ankle joint instability and no ecchymosis. There is mild swelling and tenderness on palpation over the lateral malleolus.

**Question 1-208**
The most likely diagnosis is a

(A) fracture of the proximal head of the fifth metatarsal
(B) grade I sprain of the ligament complex on the lateral side of the ankle
(C) grade II sprain of the ligament complex on the lateral side of the ankle
(D) grade III sprain of the ligament complex on the lateral side of the ankle
(E) strain of the anterior tibialis tendon

**Question 1-209**
Which of the following ligaments is most likely involved in this injury?

(A) anterior inferior tibiofibular
(B) anterior talofibular
(C) calcaneofibular
(D) deltoid
(E) interosseous

A 72-year-old female presents to the office with the complaint of a temperature of 38.9°C (102.0°F), lethargy, nausea, and a dry cough that developed one day after returning home from a cruise. Family history is significant for hypertension. Vital signs reveal a blood pressure of 100/60 mmHg, a heart rate of 53/min, and a respiratory rate of 21/min. On physical examination you note the patient to be ill appearing, and she has conversational dyspnea. HEENT reveals a dry mucous membrane of the pharynx with mild erythema. Lungs reveal decreased breath sounds and few scattered rhonchi. Heart rate is regular at 53/min with no murmur. Abdomen reveals positive bowel sounds. Tenting of the skin is also noted.

**Question 1-210**
The most likely diagnosis is

(A) acute bronchitis
(B) community-acquired pneumonia
(C) gastroenteritis
(D) urosepsis
(E) viremia

**Question 1-211**
The most likely pathogen causing this patient’s illness is

(A) coronavirus
(B) *Escherichia coli*
(C) *Haemophilus influenzae*
(D) *Legionella* species
(E) rotavirus
Question 1-212
The most appropriate anti-infective treatment is
(A) amoxicillin-clavulanate (Augmentin®)
(B) ceftriaxone (Rocephin®)
(C) clarithromycin (Biaxin®)
(D) clindamycin (Cleocin®)
(E) oseltamivir (Tamiflu®)

A 36-year-old male presents to the office with the complaint of hardness in his scrotum for the past three weeks. He reports that his testicles and scrotum do not hurt, but does admit to having a dull ache in his abdomen for the past month that he attributes to an increase in working out. He performs self-testicular examinations, but has not noticed any changes. He states that he has been lifting weights in an effort to get rid of his soft chest, which he feels is getting larger. He is a former smoker, having quit three years ago, with a 15-pack year history. He has no contributory family history. He lives with his wife and four children, is an avid horseback rider, and works as a laborer in a coal mine. Physical examination reveals gynecomastia and a firm right testicle that does not transilluminate. The remainder of the examination is normal.

Question 1-213
The most appropriate next step is
(A) CT scan of the abdomen and pelvis with contrast
(B) CT scan of the abdomen and pelvis without contrast
(C) MRI of the pelvis
(D) PET and CT scans of the abdomen and pelvis
(E) ultrasound of the scrotum

Question 1-214
Which of the following risk factors most likely increased this patient’s risk of developing this disease?
(A) age
(B) history of tobacco use
(C) horseback riding
(D) occupation
(E) race
An 18-year-old male presents to the office with the concern that since he began college this year he has not been performing to the level that he did in high school. He states that he is not completing his exams because he is checking his answers on the answer sheet five to six times before moving on to the next question. His mother has a history of anxiety disorder.

**Question 1-215**
The most likely diagnosis is

(A) adjustment disorder  
(B) attention deficit disorder  
(C) cognitive impairment  
(D) dysthymia  
(E) obsessive-compulsive disorder

**Question 1-216**
The most appropriate treatment for this patient is

(A) alprazolam (Xanax®)  
(B) methylphenidate (Ritalin®)  
(C) mirtazapine (Remeron®)  
(D) psychotherapy  
(E) sertraline (Zoloft®)

A 30-year-old female begins to exhibit seizure-like activity in the office. She has no past medical history of seizures or epilepsy and is not on any medications.

**Question 1-217**
Which of the following is most likely to confirm a diagnosis of status epilepticus in this patient?

(A) continuous seizure activity lasting 30 minutes  
(B) continuous seizure activity lasting greater than 5 minutes  
(C) history of intracerebral hemorrhage  
(D) pyrexia  
(E) seizure activity and history of epilepsy

**Question 1-218**
After assessing the airway, breathing, and circulation, the next most appropriate intervention is to

(A) administer fosphenytoin sodium (Cerebyx®) 20 mg IV  
(B) administer lorazepam (Ativan®) 4 mg IV  
(C) administer phenytoin (Dilantin®) 20 mg/kg IM  
(D) administer propofol (Diprivan®) 1-2 mg/kg IV loading dose  
(E) insert a bite block to prevent damage to her tongue and teeth
An 80-year-old male has blood pressure readings of 160/80 mmHg at multiple office visits.

**Question 1-219**
The most likely diagnosis is
(A) high normal blood pressure
(B) hypertensive urgency
(C) isolated systolic hypertension
(D) pheochromocytoma
(E) stage 1 hypertension

**Question 1-220**
The most appropriate treatment is
(A) α-blockers
(B) β-blockers
(C) calcium channel blockers
(D) diuretics
(E) nitrates