Dendritic cells function to:

A. Sample antigens
B. Lyse tumor cells
C. Opsonize foreign particles
D. Release histamine
E. Mediate humoral immunity
Features of the innate immune system include all of the following except:

A. NK cell response
B. Complement activation
C. Toll like receptor activation
D. Priming by MHC receptors
E. Secretion of GM–CSF
Risk factors believed to decrease development of allergic rhinitis and asthma include all of the following except:

A. Owning a dog
B. Owning a cat
C. Having a parent with allergies
D. Increased number of siblings
E. Exposure to farm animals
Early response to allergens includes:

A. Activation of T cells
B. Isotype switch in IgA
C. Binding of IL-2
D. High affinity receptor expression on mast cells
E. Increased IgG production
Late response to allergies include all of the following except:

A. Recruitment of T cells
B. Mast cell degranulation
C. Upregulation of VLA-4
D. Presentation by APCs to Th cells
E. Recruitment of eosinophils to the mucosa
In vivo allergy testing includes

A. RAST testing
B. ELISA testing
C. IgE measurement
D. SET
E. SIT
The mechanism of allergy immunotherapy includes all of the following except:

A. IgE antibodies
B. IgG antibodies
C. T cell subset switching
D. Signaling lymphocyte activation molecule
E. Increased IFN
Sublingual immunotherapy can lead to all of the following except:

A. Decreased development of allergic asthma in children
B. Increased efficacy compared with SIT
C. Decreased nasal symptoms in allergic rhinitis
D. Decreased medication use in allergic rhinitis
E. Improved compliance in children
The mean age for diagnosis of allergic rhinitis is

A. 3–5
B. 6–8
C. 9–11
D. 12–14
E. 15–17
Intermittent allergic rhinitis:

A. Lasts less than 4 days per week  
B. Lasts less than 4 weeks per year  
C. Interferes with sleep  
D. Affects daily activities and quality of life  
E. A and B
Patients with NARES (Nonallergic rhinitis with eosinophilia) may exhibit all of the following characteristics except:

A. Lack evidence for allergy on skin testing
B. Lack evidence for allergy on in vitro testing
C. Have 15% eosinophils on nasal smears
D. Aspirin sensitivity
E. Nasal polyps
The following antihistamine has cardiac toxicity:

A. Astemizole  
B. Cetirizine  
C. Loratidine  
D. Desloratidine  
E. Fexofenadine
Leukotriene receptor antagonists:

A. Mediate early-phase allergic response
B. Mediate late-phase allergic response
C. Benefit both allergic and nonallergic rhinitis
D. Benefit both nasal and nonnasal symptoms
E. B and D
The following is true of immunotherapy:

A. Benefits patients with nonallergic rhinitis
B. Effects begin within several months
C. Must be continued for at least 1–2 years to achieve benefit
D. Has a high risk of local skin reaction
E. Has a high risk of systemic reactions
What surgical procedure is of greatest benefit for allergic rhinitis?

A. Endoscopic sinus surgery
B. Septoplasty
C. Turbinate resection
D. Adenoidectomy
E. None of the above
According to the Allergic Rhinitis and Its Impact on Asthma (ARIA) guidelines, mild intermittent allergic rhinitis is best treated with:

A. Oral steroids
B. Intranasal steroids
C. Immunotherapy
D. Intranasal cromolyn
E. Monoclonal anti–IgE antibodies
All of the following are complications of the Caldwell–Luc procedure except:

A. CSF leak  
B. Epiphora  
C. Cheek edema  
D. V2 dysesthesia  
E. Oroantral fistula
The anterior and posterior ethmoid air cells are separated by:

A. The agger nasi
B. The posterior ethmoid artery
C. The anterior ethmoid artery
D. The 2\textsuperscript{nd} basal lamella
E. The 3\textsuperscript{rd} basal lamella
The posterior ethmoid artery is located

A. 24 mm posterior to the anterior lacrimal crest
B. 24 mm posterior to the posterior lacrimal crest
C. 10 mm anterior to the optic foramen
D. 34 mm posterior to the anterior lacrimal crest
E. 5 mm posterior to the anterior ethmoid artery
All of the following cranial nerves are located in the cavernous sinus except:

A. CN III
B. CN IV
C. CN V1
D. CN V2
E. CN VI
Management of acute visual loss following sinus surgery may include all of the following except:

A. Lateral canthotomy
B. Removal of nasal packing
C. Insertion of nasal packing
D. Angiogram and embolization
E. IV mannitol
Frontal sinus obliteration may be indicated for:

A. Acute frontal sinusitis
B. Frontal sinus mucocele
C. Allergic fungal sinusitis
D. Invasive fungal sinusitis
E. Inverting papilloma
The following are true about boundaries of the sphenoid sinus except:

A. Lateral wall contains vidian nerve
B. Roof contains optic chiasm
C. Lateral wall contains the cavernous sinus
D. Roof contains sella turcica
E. Posterior wall is the clivus
The incidence of the conchal type of sphenoidal pneumatization is approximately:

A. 86%
B. 65%
C. 11%
D. 3%
E. 1%