Which permanent tooth is LEAST likely to spontaneously erupt?

A. 2
B. 5
C. 6
D. 29
Which is the best treatment for the labial buccal mucosal lesions?

A. Dexamethasone elixir
B. Nystatin suspension
C. Tetracycline oral rinse
D. Valacyclovir (Valtrex®) tablets

Key: D
FK: 7, 6, 8
CC: 26, 18, 5, 3, 23
Where is the infection most likely located?

A. Buccal vestibule  
B. Canine space  
C. Nasal cavity  
D. Pterygomaxillary space

**Patient Box associated with Sample Questions 3, 4, and 5.**

**Patient**
Male, 48 years old

**Chief Complaint**
“I’ve been in pain for two days and now my face is swollen.”

**Background and/or Patient History**
Hypertension  
Type 2 diabetes  
Penicillin allergy

**Current Findings**
Facial edema  
Lymphadenopathy  
Extensive apical radiolucency associated with tooth 6  
Temp: 100.3°F  
BP: 150/93  
Blood glucose: 240 mg/dL

Key: B  
FK: 6, 2  
CC: 1, 2, 18
Which is the most appropriate antimicrobial agent?

A. Amoxicillin and clavulanate (Augmentin®)
B. Cephalexin (Keflex®)
C. Clindamycin (Cleocin®)
D. Metronidazole (Flagyl®)

Patient

Male, 48 years old

Chief Complaint

“I’ve been in pain for two days and now my face is swollen.”

Background and/or Patient History

Hypertension
Type 2 diabetes
Penicillin allergy

Current Findings

Facial edema
Lymphadenopathy
Extensive apical radiolucency associated with tooth 6
Temp: 100.3°F
BP: 150/93
Blood glucose: 240 mg/dL

Patient Box associated with Sample Questions 3, 4, and 5.

Key: C
FK: 8, 6, 7
CC: 26, 18
Which is the most appropriate next step?

A. Discontinue current antibiotic and refer to physician.
B. Discontinue current antibiotic and substitute with azithromycin (Z-Pak®).
C. Recommend loperamide (Imodium®).
D. Recommend probiotics.

Patient Box associated with Sample Questions 3, 4, and 5.
Also: Progressive item, paired with Sample Question 4

Key: A
FK: 6, 8
CC: 26, 27, 18, 42
After demonstration during the first restorative appointment, which is the next management technique?

A. Distraction  
B. Explanation  
C. Rationalization  
D. Sedation

**Patient**

Male, 5 years old

**Chief Complaint**

Parent: “We’re here for my son’s follow-up exam.”

**Background and/or Patient History**

First dental examination two weeks ago  
Cooperation assessment: good  
Restorable caries on one or more primary molars in every quadrant.

**Current Findings**

Key: A  
FK: 9  
CC: 1, 15, 14
Post-treatment discomfort is best managed with

A. acetaminophen (Tylenol®).
B. codeine.
C. ibuprofen (Advil®).
D. tramadol (Ultram®).

**Patient**
Female, 12 years old

**Chief Complaint**
“My mouth hurts.”

**Background and/or Patient History**
Four first premolars extracted 24 hours ago

**Current Findings**
No swelling
Before extracting tooth 24, which is the best option?

A. Amoxicillin 2 grams should be taken 30 to 60 minutes before procedure.
B. Clarithromycin (Biaxin®) 500 milligrams should be taken 30 to 60 minutes before procedure.
C. Warfarin (Coumadin®) should be discontinued the morning before procedure.
D. No antibiotic administration is required.

**Patient**
- Male, 64 years old

**Chief Complaint**
- “My tooth has turned dark grey.”

**Background and/or Patient History**
- Prosthetic heart valve

**Medications:**
- warfarin (Coumadin®)

**Current Findings**
- Necrotic tooth 24
- Tooth 24 not responsive to cold
- No swelling present
- International normalized ratio (INR): 3

Key: A
FK: 8, 6
CC: 26, 32
Which is the most likely cause of the chief complaint?

A. Gold interfacing with amalgam
B. PFM bridge
C. Titanium implants
D. Zirconia interfacing with amalgam

**Patient**
Male, 35 years old

**Chief Complaint**
“I’ve had a metallic taste in my mouth for the past few days.”

**Background and/or Patient History**
Good oral hygiene
Good overall health
Several implants
Several restorations recently completed:
- Gold crown, tooth 2
- Mesial-occlusal-distal (MOD) amalgam, tooth 3
- Zirconia crown, tooth 4
- Porcelain-fused-to-metal (PFM) bridge, teeth 29 to 31

**Current Findings**
Sample Question 10

Which is the most appropriate treatment?

<table>
<thead>
<tr>
<th>Patient</th>
<th>Male, 14 years old</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chief Complaint</td>
<td>“I can’t seem to get rid of the sores at the corners of my mouth.”</td>
</tr>
</tbody>
</table>
| Background and/or Patient History | Painful lesion  
Lesion is recurrent, never goes away entirely |

A. Acyclovir (Zovirax®) cream  
B. Amantadine (Symmetrel®)  
C. Amlexanox (Aphthasol®)  
D. Nystatin and triamcinolone (Mycolog®-II) cream

Key: D  
FK: 8, 7  
CC: 26, 5
Which graph best shows the likely plaque pH response after drinking a sugary beverage?

<table>
<thead>
<tr>
<th>Patient</th>
<th>Female, 75 years old</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chief Complaint</td>
<td>“My gums hurt over my front tooth.”</td>
</tr>
<tr>
<td>Background and/or Patient History</td>
<td>Oropharyngeal cancer treated by radiation</td>
</tr>
<tr>
<td>Current Findings</td>
<td></td>
</tr>
</tbody>
</table>

![Graphs A, B, C, D, Control]

Key: A  
FK: 10, 2  
CC: 21, 5
Which mechanism of action most likely explains the chief complaint?

**Patient Box associated with Sample Questions 12 and 13.**

A. Antithrombin III inactivation  
B. Coagulation activation  
C. Thrombin inhibition  
D. Vitamin K antagonism

**Key:** D  
**FK:** 6, 7, 8  
**CC:** 1, 2, 6, 27
Which laboratory result would provide a definitive diagnosis for the chief complaint?

Patient Box associated with Sample Questions 12 and 13.

A. Bleeding time
B. International normalized ratio
C. Partial thromboplastin time
D. Platelet count
E. Serum vitamin K

Key: B
FK: 2, 8, 6
CC: 3, 6, 1, 7
Which question is most important to ask the parent first?

A. “Did the child lose consciousness?”
B. “Do you have the teeth?”
C. “When did the child last eat?”
D. “When did the injury occur?”

Patient Box associated with Sample Questions 14, 15, 16, and 17.

A. “Did the child lose consciousness?”
B. “Do you have the teeth?”
C. “When did the child last eat?”
D. “When did the injury occur?”
Which screening radiograph would be most helpful in diagnosing a mandibular fracture?

A. Bitewing  
B. Lateral cephalogram  
C. Panoramic  
D. Periapical

Patient Box associated with Sample Questions 14, 15, 16, and 17.
Reimplantation is desired. What is the best way to protect permanent teeth after avulsion?

A. Place back into the sockets
B. Place under the tongue
C. Put in a cup of milk
D. Wrap in a wet napkin

Patient Box associated with Sample Questions 14, 15, 16, and 17.

Key: A
FK: 6, 1
CC: 17, 18
The fractured fragment of tooth 7 has not been found. What is the first step?

A. Administer appropriate pulp therapy
B. Ask the parent if there was a pre-existing fracture
C. Evaluate pulpal status
D. Radiographic image of lower lip

Key: B
FK: 6, 1
CC: 3, 5, 11, 18
Where would a loss of taste be expected?

A. 1 and 2  
B. 2 and 3  
C. 3 and 4  
D. 2, 3, and 4

Key: B
FK: 6, 1, 2
CC: 2, 6, 27, 1
The procedure results in a carious exposure of the pulp. The patient chooses to have the tooth extracted. What is the next step at this appointment?

A. Discontinue dabigatran (Pradaxa®) the morning of the appointment.
B. Obtain an international normalized ratio (INR) level the morning of the procedure.
C. Proceed without treatment modification.
D. Use 2% lidocaine with 1:50,000 epinephrine.

Key: C
FK: 6, 8
CC: 27, 32, 20
### Sample Question 20

What is the etiology of this condition?

<table>
<thead>
<tr>
<th>Patient</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Male, 37 years old</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Chief Complaint</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>“I have white stuff on my tongue.”</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Background and/or Patient History</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Recurrent low grade fever and fatigue. Patient periodically feels cold and a little ill.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Current Findings</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>White coating can be wiped off.</td>
<td></td>
</tr>
</tbody>
</table>

A. Bacterial infection  
B. Fungal infection  
C. Viral infection  
D. Vitamin B$_{12}$ deficiency

Key: B  
FK: 6, 7  
CC: 6, 18
A drug has a half-life of 4 hours. Upon discontinuing the drug

A. 87% will be eliminated in 8 hours.
B. 90% will be eliminated in 24 hours.
C. 94% will be eliminated in 12 hours.
D. 94% will be eliminated in 16 hours.

Key: C
FK: 8
CC: 26
Physician referral is most urgent for the treatment of

A. anxiety.
B. hypertension.
C. obesity.
D. smoking.

<table>
<thead>
<tr>
<th>Patient</th>
<th>Male, 65 years old</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chief Complaint</td>
<td>“A year ago I lost the filling in my back tooth.”</td>
</tr>
<tr>
<td>Background and/or Patient History</td>
<td>Smoker (cigarettes), 40 pack-year history, Dental phobia</td>
</tr>
<tr>
<td>Medications:</td>
<td>hydrochlorothiazide (Microzide®), rosuvastatin (Crestor®), aspirin 81 mg</td>
</tr>
<tr>
<td>Current Findings</td>
<td>BP: 190/100, Height: 6’1”, Weight: 325 lbs</td>
</tr>
</tbody>
</table>

Key: B
FK: 6
CC: 8, 16, 52, 11
When making decisions about patient treatment, which type of study provides the strongest evidence?

A. Case control  
B. Cohort  
C. Double-blind randomized  
D. Evidence summary  
E. Systematic review  

Key: E  
FK: 10  
CC: 41
Sample Question 24

Which tooth is indicated by the arrow?

A. 1  
B. 2  
C. 16  
D. 17

Key: D  
FK: 1, 2  
CC: 3, 1, 5
Which is the most appropriate management?

A. Amalgam restoration
B. Monitor lesion at subsequent visits
C. Resin restoration
D. Sealant

Key: D
FK: 6
CC: 5, 3
Which statement is correct regarding the prior skin tumor?

A. The depth of invasion is not important in establishing a prognosis.
B. It is formed by malignant Langerhans cells.
C. It is often associated with chronic actinic damage.
D. It often has well demarcated borders.

Key: C
A patient has a maximum opening of 25 mm. Each of the following could be a contributing factor EXCEPT one. Which is the EXCEPTION?

A. Condylar ankylosis  
B. Fatigue of the masseter muscle  
C. Hypertrophy of the coronoid process  
D. Pericoronitis

Key: B
FK: 6, 1
CC: 5, 2
The dentist refers the patient to his physician for the complaint of a sore throat. The patient is given a prescription for amoxicillin (Amoxil®), which is taken by the patient for the next three days. The patient returns two weeks later with complaints of pain in multiple joints and an epidermal rash on his trunk area. What is the most likely cause of these new signs and symptoms?

A. Allergic reaction to amoxicillin (Amoxil®)
B. Bacterial endocarditis
C. Erythema multiforme
D. Rheumatic fever

Key: D
FK: 6, 4
CC: 8, 27, 1
Which is the most likely cause of the oropharyngeal signs and symptoms?

A. Hand, foot, and mouth viral infection  
B. Mononucleosis  
C. Streptococcal pharyngitis  
D. Varicella zoster infection

Key: C  
FK: 6, 7  
CC: 8, 5, 3, 1, 2
A patient with a 40 pack-year history of smoking cigarettes expresses the desire to quit smoking. Each of the following is appropriate EXCEPT one. Which is the EXCEPTION?

A. Prescribe nicotine (Nicoderm-CQ®) patches
B. Recommend hypnosis
C. Recommend nicotine (Nicorette®) chewing gum
D. Recommend the use of a smokeless tobacco

Key: D
FK: 9, 8
CC: 9, 14, 52, 26
The initial treatment should include each of the following EXCEPT one. Which is the EXCEPTION?

A. Bite plane splint therapy
B. Diet modification
C. Minor occlusal adjustment
D. Prescription for a muscle relaxant

Key: C
FK: 6, 2, 1
CC: 1, 2, 3, 34, 35
Which is the greatest threat to pulp vitality during preparation of a tooth?

A. Bacteria  
B. Desiccation  
C. Heat  
D. Pressure

Key: C  
FK: 2, 3  
CC: 20, 30
Which base or liner may interfere with the polymerization of a resin composite restoration?

A. Calcium hydroxide  
B. Copolymer  
C. Glass ionomer  
D. Zinc oxide eugenol

Key: D  
FK: 3  
CC: 30, 21
Each of the following is true of taurodontism EXCEPT one. Which is the EXCEPTION?

A. Larger pulp chamber due to occlusally displaced furcation
B. Occurs in patients with amelogenesis imperfecta and Down syndrome
C. Permanent and primary teeth may be affected
D. Unusual root shape due to late invagination of Hertwig epithelial root sheath

Key: A
FK: 4, 2
CC: 1, 5
Which is the most likely diagnosis?

A. Candidiasis  
B. Herpangina  
C. Mononucleosis  
D. Streptococcal pharyngitis

**Patient**

Male, 16 years old, accompanied by parent

**Chief Complaint**

“I am here for my cleaning.”

**Background and/or Patient History**

**Medications:**
- albuterol (Proventil®)

**Current Findings**

White plaque covering the areas of the posterior hard and soft palatal mucosa

Key: A  
FK: 2, 7  
CC: 5, 6, 4, 1, 3
Management of the most common opportunistic infection in this case includes which drug?

A. Carbamazepine (Tegretol®)
B. Cephalexin (Keflex®)
C. Clonazepam (Klonopin®)
D. Clotrimazole (Mycelex®)

Key: D
FK: 8
CC: 18, 26
Sample Question 37

What is the most appropriate emergency treatment?

A. Antibiotics and nonsteroidal anti-inflammatory drugs (NSAIDs)
B. Occlusal adjustment and NSAIDs
C. Pulpectomy and antibiotics
D. Pulpectomy and NSAIDs

Key: D
FK: 6, 8
CC: 1, 2, 28, 26
The patient's physician prescribes cephalexin (Keflex®) 2 gm, to be taken prior to the dental treatment. The patient presents to the dental office with a rash and itching on the chest, neck, and arms. Each of the following is an appropriate next step EXCEPT one. Which is the EXCEPTION?

A. Administer diphenhydramine (Benadryl®) and monitor the patient
B. Contact the patient's physician to discuss options for treating the patient
C. Decrease the dose of cephalexin (Keflex®) to 1 gm prior to dental treatment
D. Recommend clindamycin (Cleocin®) if an antibiotic is needed for future dental treatment

Key: C
FK: 8, 5
CC: 1, 27, 2, 26, 53
Which should be the first action for the dentist to take after the initial oral diagnosis and treatment plan discussion?

<table>
<thead>
<tr>
<th><strong>Patient</strong></th>
<th><strong>Chief Complaint</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Female, 45 years old</td>
<td>“I want to get my teeth checked.”</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Background and/or Patient History</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>New patient</td>
</tr>
<tr>
<td>Self-proclaimed dental phobia</td>
</tr>
<tr>
<td>History of infrequent dental care</td>
</tr>
<tr>
<td>Suffered traumatic dental treatment experience as a child</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Current Findings</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral and radiographic examination reveal multiple caries</td>
</tr>
</tbody>
</table>

A. Encourage the patient to discuss previous traumatic dental experiences.

B. Refer the patient for behavioral therapy prior to initiating dental treatment.

C. Schedule the patient for restorative procedures in one appointment.

D. Schedule the patient for restorative procedures under conscious sedation.

Key: A
FK: 9
CC: 14, 15, 1, 44, 42
Which action should be performed by the dentist?

A. Curette the socket and suture the site.
B. Inspect the socket and reassure the mother and infant.
C. Reimplant the tooth and splint to adjacent teeth.
D. Reimplant the tooth but do not splint.

Key: B
FK: 6, 9
CC: 11, 18, 1, 2
There are four posterior teeth present in the mandibular left quadrant. One tooth has five cusps, two teeth have four cusps, and another tooth has three cusps. Which tooth is missing?

A. 18  
B. 19  
C. 20  
D. 21

**Patient**  
Female, 30 years old

**Chief Complaint**  
“I want my teeth fixed before getting pregnant.”

**Background and/or Patient History**  
Duodenal ulcer  
**Medications:**  
antacid  
oral contraceptive  
Extractions prior to orthodontic treatment  
10 years since last dental visit

**Current Findings**  
Missing and carious teeth  
Gingival swelling and erythema around tooth 17  
Bilateral tenderness in muscles of mastication

Key: D  
FK: 1, 6  
CC: 5, 1, 2
If the patient's father is unaffected and the mother is a carrier, what is the expected incidence of the patient’s siblings NOT being phenotypically affected?

A. 12.5%
B. 25%
C. 50%
D. 75%
E. 100%

Key: D
FK: 4
CC: 1, 3, 8, 11, 14
The Occupational Safety and Health Administration (OSHA) bloodborne pathogen standard requires healthcare employers to do each of the following EXCEPT one. Which is the EXCEPTION?

A. Establish an exposure control plan.
B. Implement the use of standard precautions.
C. Make hepatitis C vaccinations available.
D. Provide personal protective equipment.

Key: C
FK: 9
CC: 47, 51, 49