1. Which of the following lists best describes the path that oxygen must travel to get from the air to body cells?

1. Nasopharynx, oropharynx, trachea, alveoli
2. Oropharynx, larynx, trachea, bronchioles
3. Nose, pharynx, esophagus, bronchi, alveoli
4. Pharynx, larynx, trachea, alveoli, bronchioles

Answer: b

Objective: 9-1

Reference: 292–293

2. You are assessing a patient who overdosed on a medication and is unresponsive. Given this situation, what is the great concern regarding potential airway occlusion?

1. Spasm of the epiglottis
2. Swelling of the larynx
3. Collapse of the bronchi
4. Relaxation of the tongue

Answer: d

Objective: Supplemental

Reference: 295

3. Which of the following patients has an actual or potential occlusion of the *upper* airway?

1. A 3-year-old male with a fever and swelling of the larynx
2. A 45-year-old female with spasm of the bronchioles
3. A 61-year-old male with a piece of food stuck in his trachea
4. A 78-year-old female with a large mucus plug in a bronchus

Answer: a

Objective: 9-1

Reference: 293–294

4. Which of the following statements indicates that the speaker has an accurate understanding of breathing?

1. “When a person inhales, carbon dioxide is drawn into the lungs, and when he exhales, oxygen leaves the body.”
2. “Respiration is best described as the process of moving air into and out of the body.”
3. “Inhalation is an active process, whereas for most patients exhalation is a passive process.”
4. “In between breaths, the epiglottis closes over and protects the trachea.”

Answer: c

Objective: Supplemental

Reference: 294

5. Which of the following patients would benefit from the head tilt-chin lift maneuver?

1. A 39-year-old male who just had a seizure and has snoring respirations
2. A 45-year-old female who is alert and vomiting blood
3. A 67-year-old female who fell down a flight of stairs and is unresponsive
4. A 85-year-old female who hit her head on a tree limb and is now responsive to painful stimuli

Answer: a

Objective: 9-2

Reference: 295

6. Why is the jaw-thrust maneuver indicated for a patient with a possible spinal injury?

1. It is a permanent intervention that does not require insertion of an airway if performed correctly.
2. It minimizes movement of the head and cervical spine.
3. It is less painful for the patient.
4. It is the rescuer’s preference as to whether to use the jaw-thrust maneuver.

Answer: b

Objective: 9-2

Reference: 295–297

7. Which of the following statements about airway management in trauma patients is correct?

1. The jaw-thrust maneuver is useful in trauma patients but only if they are complaining of head or neck pain.
2. Research has shown that the jaw-thrust maneuver is easiest to perform and is therefore indicated for critically injured trauma patients.
3. Performing the head tilt-chin lift maneuver on a patient with a possible spinal injury could further injure the patient.
4. Trauma patients should always have their airway opened with the jaw-thrust maneuver, whereas medical patients should receive the head tilt-chin lift maneuver.

Answer: c

Objective: 9-2

Reference: 295

8. The jaw-thrust maneuver is indicated in a(n):

1. overdose patient with snoring respirations.
2. stroke patient with gurgling respirations.
3. cardiac arrest patient on the ski slope.
4. unresponsive patient who fell from a porch.

Answer: d

Objective: 9-2

Reference: 295–297

9. You are correctly performing the jaw-thrust maneuver when you:

1. use the thumbs as a lever to lift the patient’s mandible upward.
2. maintain the patient’s head in a neutral position and tilt the head slightly backward.
3. open the patient’s airway by slightly pushing down on the forehead and thrusting the jaw upward.
4. place one had on the patient’s forehead and lift the jaw upward with the other hand.

Answer: a

Objective: 9-2

Reference: 295–297

10. You are caring for an unconscious patient who has vomited and appears to have a blocked airway. Using the crossed finger technique you open the patient’s mouth and can see a large piece of undigested food near the back of the throat. You would:

1. insert an airway.
2. administer abdominal thrusts.
3. perform a finger sweep.
4. encourage the patient to cough.

Answer: c

Objective: 9-3

Reference: 297–298

11. You are assessing a young male patient who is responsive to painful stimuli and not breathing after a fall while rock climbing. His pulse is weak and thready, and his skin is cool and diaphoretic. When addressing his airway and breathing, you must immediately:

1. administer oxygen at 15 LPM with a nonrebreather mask.
2. perform the jaw-thrust maneuver and reassess his breathing.
3. immobilize him on a long spine board and then start artificial ventilations.
4. open his airway using the head tilt-chin lift maneuver and begin ventilations with the bag-valve mask.

Answer: b

Objective: 9-2

Reference: 295–297

12. Which of the following ventilation methods is recommended because it provides the most effective ventilations?

1. Use of a bag-valve mask (BVM) with reservoir attached, receiving air, by two OEC Technicians
2. Use of a BVM with reservoir attached, receiving O2 at 15 LPM, by one OEC Technician
3. Use of a BVM with reservoir attached, receiving O2 at 15 LPM, by two rescuers
4. Use of a BVM with O2 reservoir attached, by one rescuer

Answer: c

Objective: 9-11

Reference: 313–315

13. You have arrived in the lodge with your airway and trauma pack to care for a patient who reportedly had a seizure. Assessment reveals him to be apneic with vomitus in the airway. He has a radial pulse, and his skin is cool and diaphoretic. Which one of the following should you do immediately?

1. Start artificial ventilations.
2. If available in your trauma pack, use a suction device to clear the airway; otherwise, turn him on his side and clean out the vomitus.
3. Check the patient’s breath sounds.
4. Apply a nonrebreather mask.

Answer: b

Objective: 9-3

Reference: 297–300

14. Which of the following statements describes the correct positioning of a BVM on a patient’s face?

1. The narrow part of the mask is over the bridge of the nose, and the bottom part is in the cleft of the chin.
2. If two rescuers are using the BVM, the mask need only be placed over the mouth while the nose is pinched closed.
3. The wide portion of the mask is at the top of the nose, and the narrow part is below the lower lip.
4. The mask is properly positioned when the top portion lies over the bridge of the nose, and the lower portion is below the chin.

Answer: a

Objective: 9-11

Reference: 314

15. Which of the following statements is the best tip for artificially ventilating a patient using a bag-valve mask?

1. If the patient has dentures, remove them so that a better mask-to-face seal can be achieved.
2. It is important to maintain the head tilt-chin lift or jaw-thrust maneuver while ventilating the patient.
3. To direct air into the lungs and not into the stomach, flex the patient’s head forward while ventilating with the bag-valve mask.
4. Always remove the oropharyngeal airway so that it is not pushed deep into the patient’s airway during ventilations.

Answer: b

Objective: 9-11

Reference: 313–315

16. While a 61-year-old female in cardiac arrest receives emergency care you note that her abdomen grows larger with each ventilation provided from a bag-valve mask. What instructions should you provide?

1. “Try delivering each ventilation quickly, and let’s slow down the rate.”
2. “The ventilation rate and the force of ventilation need to be increased so that air reaches the lungs.”
3. “ Let's slow the ventilation rate to 12 per minute and not squeeze in as much air with each breath.”
4. “I need another rescuer to apply firm pressure over the stomach while we ventilate this patient.”

Answer: c

Objective: 9-11

Reference: 313–315

17. You arrive to assist another rescuer with a patient in cardiac arrest. As you enter the room, a brand new OEC Technician informs you that he is having difficulty maintaining the mask seal to the patient’s face while ventilating with the BVM. Which one of the following responses shows that you understand and can help with the problem?

1. “I will check the breath sounds to see if air is reaching the lungs.”
2. “Why don’t we try using a larger adult mask and flexing the head forward?”
3. “I will administer some cricoid pressure; that should help.”
4. “Let me maintain the face-to-mask seal while you squeeze the bag.”

Answer: d

Objective: 9-17

Reference: 313–315

18. By placing an oropharyngeal airway in a patient, you have:

1. protected the airway from vomit or other secretions.
2. kept the tongue away from the airway.
3. obtained a patent airway by keeping the mouth from closing.
4. minimized the risk of vomiting by closing off the esophagus.

Answer: b

Objective: 9-7

Reference: 302–304

19. Which of the following statements indicates that the speaker understands how to use an oropharyngeal airway?

1. “Once it has been placed, the head tilt-chin lift is no longer needed.”
2. “If it is too small, it could push the epiglottis over the opening of the trachea.”
3. “It protects the patient from aspirating vomit or other secretions.”
4. “I must watch the patient for vomiting or gagging even with the proper insertion.”

Answer: d

Objective: 9-7

Reference: 302, 304

20. For which of the following patients is placement of an oropharyngeal airway indicated?

1. A responsive but confused patient with stridorous respirations
2. A patient who has vomited and responds to painful stimuli by moaning
3. An unresponsive patient who has neither a gag reflex nor a cough reflex
4. A patient with snoring respirations who coughs as the oral airway is placed into his mouth

Answer: c

Objective: 9-7

Reference: 302

21. You are observing a rescuer insert an oropharyngeal airway into the airway of a 36-year-old male who has overdosed. Which one of the following observations indicates correct technique?

1. The rescuer inserts the oral airway into the patient’s mouth upside down and then turns it 180 degrees once it is halfway in the mouth.
2. The rescuer uses a tongue depressor to press the back of the patient’s tongue downward and then inserts the oral airway upside down.
3. The rescuer inserts the oral airway in its normal anatomic position until the flange of the airway is 1 cm above the patient’s lips.
4. The rescuer inserts the oral airway sideways into the mouth and then rotates it 180 degrees once it has reached the base of the tongue.

Answer: a

Objective: 9-7

Reference: 303

22. Which of the following statements indicates that the speaker knows how to properly size an oral airway before its placement?

1. “It is better to have an oral airway that is too large than one that is too small.”
2. “To select an appropriately sized oral airway, you must first estimate the patient’s height and weight.”
3. “The length of the airway should approximate the distance from the corner of the mouth to the angle of the jaw.”
4. “An appropriately sized oral airway can be selected by looking in the patient’s mouth and estimating the length of the tongue.”

Answer: c

Objective: 9-7

Reference: 302–303

23. You recognize that the an oropharyngeal airway has been appropriately inserted when:

1. it cannot be dislodged by the rescuer.
2. the flange sits about ¼ inch from the patient’s lips.
3. vomiting is no longer occurring.
4. air moves freely in and out of the airway.

Answer: d

Objective: 9-7

Reference: 303

24.If a patient gags while you are inserting an oropharyngeal airway, you should:

1. remove the airway and maintain the head tilt-chin lift maneuver.
2. remove the airway, lubricate it, and reattempt to insert it.
3. remove the airway and reattempt to insert it using a smaller airway.
4. use a tongue depressor to better place the airway.

Answer: a

Objective: 9-7

Reference: 302–304

25. You have been ventilating the patient with an oropharyngeal airway and bag-valve mask. Suddenly the patient regains consciousness and starts to gag. Your immediate action should be to:

1. leave the airway in but stop ventilations.
2. remove the airway.
3. suction the airway.
4. reassure and calm the patient.

Answer: b

Objective: 9-7

Reference: 304

26. You appropriately size a nasopharyngeal airway by measuring the:

1. distance from the patient’s mouth to the angle of the jaw.
2. diameter of the patient’s larger nostril.
3. distance from the patient’s nose to the earlobe.
4. diameter of the patient’s little finger.

Answer: c

Objective: 9-7

Reference: 302

27. Which of the following phrases best describes oxygen?

1. An odorless, colorless, tasteless gas
2. A highly flammable substance
3. An odorless gas that is cloudy when pressurized
4. A moist gas that supports combustion

Answer: a

Objective: Supplemental

Reference: 306

28. You arrive at the aid room and note that portable oxygen tanks are now yellow instead of green as during your previous shift. As a knowledgeable OEC Technician you should:

1. not use the yellow tank and instead retrieve a green cylinder.
2. recognize the availability of more effective synthetic oxygen.
3. decide that your mountain area has switched to new lightweight oxygen tanks.
4. realize that the yellow color indicates new tanks that hold more oxygen.

Answer: a

Objective: Supplemental

Reference: 306–307

29. To ensure an oxygen flow rate of 15 LPM to a patient using a nonrebreather mask, you should:

1. “crack” the oxygen tank after attaching the regulator.
2. hear a hissing sound when you turn on the oxygen.
3. slowly release oxygen from the tank until the pressure is 15 psi.
4. select 15 on the oxygen flow-control gauge.

Answer: d

Objective: Supplemental

Reference: 308–309, 312–313

30. If while checking a size D oxygen tank you notice that the reading on the pressure regulator is 1000 psi, you should recognize that the tank is:

1. leaking.
2. overfilled.
3. half full.
4. almost empty.

Answer: c

Objective: 9-9

Reference: 308–309

31. Which of the following statements indicates that the speaker has a correct understanding of the use of oxygen in a prehospital setting?

1. “Oxygen should not be given to patients with chronic lung diseases.”
2. “If the patient is claustrophobic, oxygen should be administered at 15 LPM through a nasal cannula.”
3. “Oxygen should be administered to anyone who is short of breath.”
4. “An OEC Technician does not need a physician’s order to administer oxygen.”

Answer: c

Objective: 9-8

Reference: 310–311

32. Which of the following actions is part of the correct use of a nonrebreather mask on an adult patient?

1. Ensuring that the reservoir fully collapses with each breath
2. Instructing the patient to take deeper breaths when the mask is on
3. Setting the oxygen flow rate to between 6 LPM and 16 LPM.
4. Fully inflating the reservoir before placing the mask on the patient.

Answer: d

Objective: Supplemental

Reference: 312–313

33. Which of the following occurs during the proper use of a nonrebreather mask?

1. The air inhaled by the patient will be recycled with oxygen.
2. The mask is comfortable and well tolerated by all patients when properly applied.
3. The mask can deliver between 80 percent and 90 percent oxygen.
4. Oxygen is delivered into the lungs when the patient not inhaling.

Answer: c

Objective: 9-11

Reference: 312

34. Despite coaching and explaining the benefits of a nonrebreather face mask, a female patient with chest pain panics and states that she cannot tolerate the mask over her face. The more that she panics, the worse the chest pain becomes. Your best course of action is to:

1. remove the nonrebreather mask and apply a simple face mask.
2. decrease the oxygen flow rate entering the nonrebreather mask.
3. disconnect the nonrebreather and replace it with a nasal cannula.
4. discontinue oxygen therapy and continually monitor breath sounds.

Answer: c

Objective: 9-11

Reference: 311–312

35. What is the most common oxygen delivery device used by OEC Technicians?

1. A nasal cannula
2. A nonrebreather mask
3. A simple face mask
4. A venture mask

Answer: b

Objective: 9-11

Reference: 312

36. When monitoring a patient receiving oxygen through a nasal cannula, which of the following observations warrants immediate intervention?

1. An oxygen flow rate of 15 LPM
2. Prongs in the nostrils that curve posteriorly into the nose
3. Tubing that is positioned over the ears and under the chin
4. Normal patient breathing while the nasal cannula is in place

Answer: a

Objective: 9-11

Reference: 311

37. Which of the following statements about a nasal cannula is true?

1. The oxygen flow rate can be adjusted anywhere from 1 LPM to 10 LPM, depending on how much oxygen the patient needs.
2. When the nasal cannula is set to the highest appropriate oxygen flow rate, it delivers 24–44 percent oxygen.
3. A nasal cannula is preferred over a nonrebreather mask because the cannula administers the oxygen through the nose instead of through the mouth.
4. It is best to see how a patient tolerates a nasal cannula before attempting to place a nonrebreather mask on the patient.

Answer: b

Objective: 9-11

Reference: 311

38. Which of the following statements shows that the speaker understands how to suction patients properly in a field setting?

1. “When caring for a young child, I suction for a minimum of 10–15 seconds.”
2. “To thoroughly suction a patient, I insert the rigid tip of the catheter past the base of the tongue and into the pharynx.”
3. “It is helpful to pour sterile water into a patient’s mouth to liquefy vomit and make it easier to suction out.”
4. “I activate the suction device only when I am withdrawing the suction catheter.”

Answer: d

Objective: 9-11

Reference: 299

39. The lower airway consists of which of the following structures?

1. Epiglottis, trachea, and bronchi
2. Pharynx, bronchi, and alveoli
3. Trachea, bronchi, and alveoli
4. Larynx, bronchi, and alveoli

Answer: c

Objective: 9-6

Reference: 293

40. The most commonly used method for opening a patient’s mouth to suction the oropharynx, to perform a finger sweep, or to insert an oral airway is:

1. Sellick’s maneuver.
2. the crossed finger technique.
3. a Yankauer catheter.
4. the finger sweep.

Answer: b

Objective: 9-1

Reference: 297

41. You have opened and cleared your patient’s airway. While waiting for other equipment or personnel, the easiest way to maintain this state and ensure adequate breathing is to:

1. place the patient in the left lateral recumbent (recovery) position if the patient is unresponsive and spinal injury is not suspected.
2. place a suction catheter in the corner of the patient’s mouth to continually remove secretions.
3. maintain the head tilt-chin lift position.
4. use the crossed finger technique.

Answer: a

Objective: 9-2

Reference: 300

42. Your patrol director has asked you to check the oxygen tanks and let her know how long they will last at an accident. To calculate this information you would use which of the following formulas?

1. (Gauge pressure in psi minus safe residual pressure) times cylinder size constant divided by flow rate in LPM
2. (Flow rate in LPM divided by cylinder size) times gauge pressure
3. (Gauge pressure divided by flow rate) minus safe residual pressure
4. (Cylinder size minus safe residual pressure in psi) times flow rate in LPM

Answer: a

Objective: 9-8

Reference: 308–309

43. A time-honored technique that may be used on conscious or unconscious patients to quickly remove fluid and solids from the airway is:

1. a jaw thrust.
2. the crossed finger technique.
3. a finger sweep.
4. gravity.

Answer: d

Objective: 9-3

Reference: 297

44. Which of the following statements shows that the speaker understands how to properly store an oxygen tank after use?

1. “I’m going to leave the regulator set to 15 LPM so it will be ready when we need it.”
2. “I’ll stand the oxygen tank beside the stretcher so everyone will know where it is.”
3. “I’ll tighten the valve stem as much as I can so it won’t come loose.”
4. “I’ll place the oxygen tank in its protective case until we need to use it again.”

Answer: d

Objective: 9-9

Reference: 309

45. You are checking equipment at the beginning of your shift. The D size oxygen cylinder measures 1000 psi. You calculate that if you needed to use this tank at 15 LPM it would last:

a. 8.5 minutes.

b. 15 minutes.

c. 5 minutes.

d. 12 minutes.

Answer: a

Objective: 9-8

Reference: 309

46. You have been asked to teach a new patroller how to put a patient in the recovery position. Which of the following statements about the recovery position would be correct?

1. “Roll the patient onto his side and then hold him there until help arrives.”
2. “After turning the patient on his side, rest the patient’s head on your aid pack.”
3. “Elevate the patient’s lower body so that his oral secretions will drain out easily.”
4. “Turn the patient on his side and flex his upper leg so that it anchors him on his side.”

Answer: d

Objective: 9-5

Reference: 300

47. What does the letter S in the acronym SLIC stand for?

1. Slowly
2. Size
3. Septum
4. Slippery

Answer: b

Objective: 9-7

Reference: 301–302

48. To clear an airway of fluid and debris, suctioning should be applied:

1. for as long as needed.
2. for no more than 10–15 seconds at a time.
3. for no more than 30 seconds at a time.
4. as deeply as needed to remove as much fluid as possible.

Answer: b

Objective: 9-3

Reference: 299–300

49. You have been asked to put a patient on a nonrebreather mask at 15 LPM. After you have finished attaching the regulator to the oxygen cylinder, your next step is to:

1. turn the valve stem on the top of the cylinder using a special oxygen wrench or key.
2. attach the nonrebreather mask to the regulator and fill the reservoir.
3. turn the oxygen control knob to 15 LPM.
4. check the pressure gauge indicator to determine how much pressure is in the cylinder.

Answer: a

Objective: 9-9

Reference: 307–308

50. Which of the following statements shows an understanding by the speaker of the use of a pocket mask?

1. “Although a pocket mask is very effective at ventilating a patient, you are directly exposed to the patient’s secretions.”
2. “A pocket mask must be securely placed over the patient’s mouth and nose.”
3. “When using a pocket mask to ventilate a patient, you must make sure that the reservoir bag is in place.”
4. “A pocket mask should be used only when oxygen is connected to it.”

Answer: b

Objective: 9-12

Reference: 305–306

51. You hear a candidate OEC Technician explaining the use of a barrier shield to another candidate. Which of the following statements would indicate that he does not fully understand its purpose or how to use it?

1. “A barrier device is as good as any of the other airway adjuncts for delivering oxygen.”
2. “A barrier device cannot be used as personal protective equipment.”
3. “You need to open the patient’s airway before using a barrier device.”
4. “A barrier device may have either a mesh opening or a breathing tube in the center.”

Answer: a

Objective: 9-12

Reference: 304–305