

1. Which of the following is/are acceptable criteria for using a low-flow oxygen delivery system?

1. the tidal volume cannot be less than 500 mls
2. the ventilatory rate should be less than 25/min
3. the PIF is 25 lpm
4. the ventilatory pattern should be regular and consistent

- a. 1 and 3
- *b. 2 and 4
- c. 1, 2, and 4
- d. 2, 3, and 4
- e. 1, 2, and 3

2. The most commonly used type of oxygen concentrator is the:

- a. semipermeable membrane
- *b. molecular sieve
- c. liquid system

3. Ten cubic feet of gaseous oxygen is equivalent to _____ litres of liquid O₂.

- *a. 0.012
- b. 120
- c. 860
- d. 8600
- e. 1200

4. General anaesthesia includes:

1. a state of unconsciousness produced by anaesthetic agents
2. absence of pain sensation

3. complete or total muscle paralysis
4. controlled mechanical ventilation in all situations
5. only dissociating agents

- *a. 1, 2
- b. 1, 2 and 3
- c. 2, 3 and 4
- d. 1, 2, 4 and 5
- e. 2, 3, 4, and 5

5. Minimum alveolar concentration:

- a. is never greater than 50%
- b. refers to the maximum amount of anaesthetic agent which can be safely given to a patient
- c. increases as the therapeutic index decreases
- d. refers to the minimum alveolar concentration of an agent which can be safely administered to a patient
- *e. is the alveolar concentration of an anaesthetic agent which produces immobility in 50% of the population

6. The most common complication of spinal anaesthesia is:

- a. infection
- *b. hypotension
- c. nausea and vomiting
- d. respiratory depression
- e. urinary retention

7. Drugs that act upon nervous tissue to interrupt the transmission of electrical impulses are called:

Choose the best answer.

- a. muscle relaxants anaesthetics
- *b. local anaesthetics
- c. regional anaesthetics
- d. inhaled
- e. intravenous anaesthesia

8. A patient with a shallow, deep, or irregular ventilatory pattern should receive oxygen therapy from:

- *a. a high-flow system
- b. a low-flow system

9. When using a non-rebreathing mask to deliver high oxygen concentrations, the one basic point to remember is:

- *a. the reservoir bag must never be totally collapsed during inspiration
- b. always have the patient sitting upright to decrease the work of breathing
- c. keep the flow high enough to prevent the one-way valves from closing on inspiration
- d. always use a flow rate between 6 and 10 lpm
- e. all are correct

10. Side effects of oxygen therapy (in the adult patient) include:

1. absorption atelectasis
2. alteration of type I and type II pneumocytes
3. retinopathy
4. bronchopulmonary dysplasia

- *a. 1 and 2

- b. 3 and 4
- c. 1, 3, and 4
- d. 1, 2, and 3
- e. all are correct

11. In patients with chronic hypercapneic states, oxygen should be judiciously administered because:

- a. they may have a decreased ventilatory response to CO₂ and hydrogen ion
- b. hypoxemia may be their primary respiratory stimulus
- c. there is generally a moderate degree of renal compensation
- *d. a and b are correct
- e. b and d are correct

12. Select the indications for oxygen therapy:

1. an elevated work of breathing
2. hypoxemia
3. increased myocardial workload
4. to decrease hypoxic drive to ventilate

- a. 1 and 2
- b. 2 and 3
- *c. 1, 2, and 3
- d. 1, 2, 3 and 4

13. If a high-flow nebulizer was being powered by AIR and the oxygen concentration was set at 40%, what would be the delivered oxygen concentration?

- *a. 21%

- b. 35%
- c. 40%
- d. 100%

14. As a patient's minute ventilation (respiratory rate x tidal volume) increases while receiving low-flow oxygen therapy, the oxygen concentration being delivered will decrease.

- *a. The above statement is true
- b. The above statement is false

15. What volume of gas, in litres, is contained in a full E size oxygen cylinder?

- a. 2200 psi
- *b. 623 L
- c. 25 L/psi
- d. 1500 L