1. Which of the following drugs used for chemotherapy induces a change in high and low-density lipoproteins?
   a) Tyrosine-kinase inhibitors
   b) Bevacizumab
   c) Monoclonal antibodies
   d) Tamoxifen

2. In terms of chemotherapy-induced cardiotoxicity:
   a) There are no conclusive data to predict that patients will develop cardiotoxicity
   b) Diastolic dysfunction is the most common manifestation
   c) No significant impact on mortality has been identified
   d) All of the above

3. Regarding the use of diagnostic images to predict the prognosis of patients at high risk of chemotherapy-associated cardiotoxicity:
   a) The ejection fraction is a sensitive tool as of the early stages of cardiotoxicity.
   b) A normal left ventricular ejection fraction rules out the likelihood of late impairment.
   c) MRI is the gold standard for evaluating both the systolic and diastolic function.
   d) Dobutamine stress echocardiography is not an early predictor of a decline in the ejection fraction following high doses of chemotherapy.

4. The Bispectral Index Score (BIS) values are associated with the electroencephalographic activity. In this regard, the following statement is true:
   a) The Delta wave is associated with awakening and a BIS of 80 to 100.
   b) Under sedation, the range is between 40 and 60.
   c) Deep anesthesia produces Beta waves and a range between 20 and 40 on the BIS monitor.
   d) A and C are correct.

5. The meta-analysis by Punjasawadwong et al. showed:
   a) A decline in the use of intravenous anesthetic agents
   b) A decrease in MAC levels of inhaled anesthetic agents
   c) A shorter extubation time by over 8 minutes
   d) A and B are true

6. Which of the following parameters defines the “triple low” when addressing length of hospital stay and 30-days mortality?
   a) Mean blood pressure (below 65 mm Hg), BIS (below 40) and MAC (under 0.6).
   b) Mean blood pressure (below 75 mm Hg), BIS (below 35) and MAC (under 1).
   c) Mean blood pressure (below 60 mm Hg), BIS (below 40) and MAC (under 1).
   d) Mean blood pressure (below 75 mm Hg), BIS (below 45) and MAC (under 0.8).
7. With regards to the two types of memory, explicit and implicit, is it true that:
   a) The explicit or declarative memory refers to behavioral changes or the stimulus response with no knowledge and involves multiple areas of the brain.
   b) The amygdala modulates emotional learning on the cortex and the hippocampus and is needed for storing and retrieving memories.
   c) Inhaled and intravenous anesthetics affect the implicit memory.
   d) The explicit memory is also called automatic or non-declarative.

8. In terms of intraoperative awareness, class 4 according to Mashour means:
   a) Paralysis (feeling unable to move, speak, or breath)
   b) Isolated auditory perceptions
   c) Pain
   d) Distress (anxiety, suffocation and an imminent dying sensation)

9. Which of the following factors does NOT intensify the susceptibility to intraoperative awareness?
   a) The use of anticonvulsants
   b) Smoking and alcohol use
   c) ASA ≥ 3 patients
   d) Ejection fraction over 40%

10. With regards to peripartum cardiomyopathy the following is true:
    a) Its etiology and pathogenesis are unknown and the potential causes suggested are viral sources or autoimmune response.
    b) Mortality is associated with more than 3 parities and black race.
    c) Implantation of cardiac defibrillators in patients with an ejection fraction of less than 30% has been suggested.
    d) All of the above.

11. Which of the following characteristics is associated with Takotsubo's cardiomyopathy?
    a) Basal and mid-ventricular akinesia
    b) Basal hyperkinesia
    c) Transient right and left ventricular dysfunction
    d) A and C are true

12. In terms of Mg ion, the truth is that:
    a) It modulates and stabilizes the Na and K flow inside the plasma membranes
    b) It's a calcium antagonist at the intracellular level
    c) Increases catecholamine release from the adrenal medulla
    d) A and B are true

13. Pheochromocytoma-induced cardiomyopathy is characterized by the following, except for:
    a) Intracellular K overload as the key injury
    b) Ischemic-reperfusion type lesion with free radicals
    c) Vasospasm
    d) Hypertrophic or dilated cardiac dysfunction

14. The recommendation for mitral valve prolapse patients undergoing anesthesia is:
    a) Using vasoconstrictors to maintain blood pressure
    b) Administering short-acting beta-blockers to control heart rate
    c) Preferably maintain high heart rates
    d) A and B are true

15. X-fragile syndrome (SXF) is the most frequent cause of hereditary mental retardation and it is associated with mitral valve prolapse. Regarding this syndrome, is it true that:
    a) Its prevalence in males is significantly lower than in females
    b) It is Y-chromosome-linked
    c) Has an increased difficult airway risk
    d) All of the above

Reference

Answers
1. d
2. a
3. c
4. b
5. d
6. d
7. b
8. a
9. c
10. d
11. b
12. d
13. a
14. d
15. c