Aviation Medicine Quiz

1. The coldest layer of the atmosphere is:
   a) Troposphere
   b) Mesosphere
   c) Stratosphere
   d) Thermosphere

2. The 1964 ICAO standard atmosphere closely represents the pressure and temperature characteristics at the temperature latitude of:
   a) 30° North
   b) 30° South
   c) 45° North
   d) 45° South

3. The percentage of CO₂ which is carried in the blood in the form of bicarbonates is:
   a) 45%
   b) 60%
   c) 55%
   d) 70%

4. In which of the following sites is carbonic anhydrase not present:
   a) RBCs
   b) Renal cortex
   c) Muscle
   d) Liver

5. The value of oxygen utilization for the body as a whole at rest is:
   a) 25%
   b) 45%
   c) 35%
   d) 30%

6. Transfer of oxygen from alveoli to the blood stream in resting conditions in a healthy individual is:
   a) Diffusion limited
   b) Perfusion limited
   c) Both
   d) None

7. Which of the following is not a characteristic of the pulmonary circulation:
   a) Low pressure circuit
   b) Highly compliant
   c) Alveolar pressures are important in determining blood flow
   d) Hypoxic vasodilation

8. On exposure to hypoxia, performance of well learned and practice tasks is preserved adequately up to:
   a) 10000 ft
   b) 15000 ft
   c) 20000 ft
   d) 25000 ft

9. Which of the following factors do not influence an individual’s pattern of symptomatology on exposure to hypoxia:
   a) Physical activity
   b) Intercurrent illness
   c) Use of drugs
   d) Previous exposure

10. Generally, what percentage of LOX that is produced, reaches the aircraft:
    a) 10-15%
    b) 15-20%
    c) 20-25%
    d) 25-30%

11. In the injuries sustained in an aircraft accident, the percentage of craniofacial injuries is around:
    a) 30%
    b) 40%
    c) 50%
    d) 60%

12. Which of the following is a model for predicting tolerance to head injury:
    a) Wayne State Tolerance Curve
    b) Gadd Severity Index
    c) Computer generated models
    d) All of the above

Ind J Aerospace Med 52(2), 2008
13. Which of the following is not an index of thermal comfort:
   a) Effective temperature
   b) Bedford scale
   c) ASHRAE Scale
   d) Required sweat rate

14. Tonic vibration reflex is seen in the frequency range of:
   a) 20-100 Hz   b) 120-200 Hz   c) 220-300 Hz   d) 320-350 Hz

15. ‘Satisficing’ is seen in the context of:
   a) Classical decision making
   b) Naturalistic decision making
   c) Aeronautical decision making
   d) None of the above

16. Which of the following is not a disadvantage of automation:
   a) Reduced arousal levels
   b) System opacity
   c) System autonomy
   d) Increased sophistication of information presentation

17. The frequency range in which the bone conduction transmission of sound is greatest is around:
   a) 3-4 kHz   b) 1-2 kHz   c) 4-5 kHz   d) 2-3 kHz

18. The number of annexes of the Chicago convention is:
   a) 17   b) 18   c) 19   d) 20

19. Ideal sleep enhancing drug for personnel deployed westwards across 9-11 time zones is:
   a) Temazepam
   b) Zopiclone
   c) Zolpidem
   d) Zaleplon

20. According to HACCP guidelines, cold meals should be stored below:
   a) 15°C   b) 5°C   c) 10°C   d) 0°C

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