

The Aviation Medicine Quiz

Dear friends,

Here is a set of questions related to High Altitude Physiology. Each correct answer carries one point. Go through the questions, select the most appropriate response and rate yourself. The correct answers are provided on page number 60.

1. ICAO's standard atmosphere was defined in the year:
(a) 1924 (b) 1944 (c) 1964 (d) 1974
2. A pilot gets the Astronaut status when he files an altitude in excess of-
(a) 20 km above MSL (b) 40 km above MSL
(c) 60 km above MSL (d) 80 km above MSL
3. The earth's gravitational force reduces to half of its mean sea level value at-
(a) 80 km (b) 700 km (c) 256.5 km (d) 27.35 km
4. Which of the following is not true of space motion sickness-
(a) It was first reported by cosmonaut Titov
(b) The emesis is not associated with customary prodromal symptoms
(c) Presence of adynamic ileus
(d) The affected person cannot carry out EVA even after recovery
5. The father of altitude physiology is -
(a) Acosta (b) Glaisher (c) Paul Bert (d) Coxwell
6. The volume of gas on ascent to altitude doubles at-
(a) 3048m (b) 3962 m (c) 4572 m (d) 5486 m
7. To maintain the sea level conditions, 100% Oxygen will be required to be given under positive pressure from -
(a) 33000 ft (b) 40,000 ft (c) 45,000 ft (d) 50,000 ft
8. For maintenance of adequate brain function during acute hypoxia, the oxygen equipment should not allow the partial pressure of alveolar oxygen to fall below -
(a) 15 mm of Hg (b) 30mm of Hg (c) 45 mm of Hg (d) 60 mm of Hg
9. The Oxygen toxicity of the central nervous system is called-
(a) Lorraine-Smith effect (b) Paul Bert effect
(c) Marie-Stoll effect (d) Cross-Spinelli effect

10. Fatal pulmonary edema results when the dosage of Ozone inhaled is more than -
(a) 0.3 ppmv (b) 1 ppmv (c) 5 ppmv (d) 10 ppmv
11. The number of ATP molecules formed on complete oxidation of glucose through aerobic metabolism are -
(a) 34 (b) 38 (c) 42 (d) 46
12. On short duration exposure to an altitude of 48,000 ft, with pre-oxygenation of 30 min, the individual can remain at altitude in excess of 25,000ft for -
(a) 5 min (b) 8 min (c) 10 min (d) 13 min
13. In emphysema, the type of Hypoxia is -
(a) Hypoxic (b) Anaemic (c) Stagnant (d) Histotoxic
14. The amount of Oxygen that can combine with one gm of Haemoglobin is -
(a) 1.36 ml (b) 1.39 ml (c) 1.42 ml (d) 1.45 ml
15. The activity of the peripheral chemoreceptors is increased mainly by -
(a) Increased pH (b) Increased PaCO_2 (c) Decreased PaO_2 (d) Increased PaO_2
16. A hypersonic aircraft can connect farthest two points on earth in -
(a) 2 hrs (b) 8hrs (c) 12hrs (d) 16hrs
17. The amount of gaseous oxygen released per liter of LOX at NTP is -
(a) 420L (b) 640L (c) 840L (d) 980L
18. The Oxygen mask used in AN 32 aircraft is -
(a) ABFL Mk II (b) KM-34 (c) P/Q mask (d) KM-32
19. The counter pressure applied in BKK-4 partial pressure suit for PBA is -
(a) 1:5 (b) 1:10 (c) 1:15 (d) 1:20
20. Breathing air at 10,000ft altitude is equivalent to breathing 100% oxygen at -
(a) 18,000 ft (b) 40,000 ft (c) 33,000 ft (d) 25,000 ft

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