An overstressed pilot may show the following symptoms:
1. mental blocks, confusion and channelized attention
2. resignation, frustration, rage
3. deterioration in motor coordination
4. high pitch voice and fast speaking

A 1 and 2 are correct, 3 and 4 are false
B 1 and 3 are correct, 2 and 4 are false
C 1, 2, 3 and 4 are correct
D 1, 2 and 3 are correct, 4 is false

The following applies for the physical properties of gases:
A at sea-level a gas has 1/3 of the volume it would have at 27000 ft
B at an altitude of 18 000 ft a gas volume is three times as large as it would be at sea-level
C a water vapour saturated gas at 34 000 ft has 6 times its volume as it would have at sea-level
D at an altitude of 63 000 ft water will boil at temperature of 65°C

The chemical composition of the earth’s atmosphere (I C A O standard atmosphere) is
A 71 % nitrogen, 28 % oxygen, 0,9 % argon, 0,03 % carbon dioxide
B 78 % nitrogen, 28 % oxygen, 0,9 % carbon dioxide, 0,03 % argon
C 78 % nitrogen, 21 % oxygen, 0,9 % carbon dioxide, 0,03 % argon
D 78 % nitrogen, 21 % oxygen, 0,9 % argon, 0,03 % carbon dioxide

Following a rapid decompression at 30.000 feet, the time of useful consciousness would be about:
A 5 to 10 minutes
B 10 to 12 minutes
C 1 to 2 minutes
D 3 to 5 minutes

Hypoxia can be prevented when the pilot
A is using additional oxygen when flying above 10.000 feet
B is relying on the body's built in warning system recognizing any stage of hypoxia
C is swallowing, yawing and applying the Valsalva method
D will not exceed 20 000 FT cabin pressure altitude

After SCUBA diving (more than 30 feet of depth) you have to wait a period of time before flying again. This period is at least:
A 48 hours
B 12 hours
C 6 hours
D 24 hours

During hyperventilation:
A acidity level of the blood is reduced
B alaklinity level of the blood is reduced
C oxygen concentration of the blood is below normal
D nitrogen concentration of the blood is above normal
8. The rate and depth of breathing is primarily regulated by the concentration of:
   A. oxygen in the cells
   B. water vapour in the alveoli
   C. nitrogen in the air
   D. carbon dioxide in the blood

9. What is meant by presbycusis?
   A. Gradual onset of long-sightedness with age.
   B. Total loss of hearing in both ears due to disease.
   C. Total loss of hearing in one ear due to use of a headset in the cockpit.
   D. Gradual loss of hearing with age.

10. To optimise one's night-vision performance, it is necessary:
    - 1: to spend some time getting adapted to low levels of illumination
    - 2: to increase the instrument panel lighting by reducing the cockpit lighting
    - 3: not to focus on the point to be observed
    - 4: to avoid blinding
   A. 2
   B. 2, 3, 4
   C. 1, 2, 4
   D. 1, 3, 4

11. Angular accelerations are picked up in the inner ear by
    A. the semicircular canals
    B. the tympanum
    C. the saccule and the utricle
    D. the cochlea

12. Which of the following illusions are brought about by conflicts between the visual system and the vestibular system?
    - 1: Illusions concerning the attitude of the aircraft
    - 2: Autokinetic illusion (fixed point viewed as moving)
    - 3: Illusions when estimating the size and distance of objects
    - 4: Illusions of rotation
   A. 1, 4
   B. 2, 3, 4
   C. 2
   D. 3, 4

13. What should a pilot do if he has no information about the dimensions of the runway and the condition of the terrain underneath the approach? He should
   A. make an instrument approach and be aware of the illusory effects that can be induced
   B. be aware that approaches over downsloping terrain will make him believe that he is higher than actual
   C. make a visual approach and call the tower for assistance
   D. be aware that approaches over water always make the pilot feel that he is lower than actual height
14 On experiencing a vestibular illusion in straight and level flight, it is recommended that:
   A you rely on your sensations only, as humans are much more reliable than flight instruments
   B you close your eyes for a moment so that the oculo-vestibular conflict disappears
   C you tilt your head to the side opposite to the turn to nullify the stimulus causing the illusion
   D you avoid head movements and rely on your instruments

15 Among the symptoms of hypoglycaemia are:
   A Headache and lack of concentration
   B Double vision and puffiness around the eyes
   C Severe eye and head aches
   D Difficulty in focussing on near-by objects

16 To prevent gastro-intestinal problems in tropical climates you should:
   1. not eat salad or raw vegetables
   2. always peel fruit
   3. only eat food that has been properly cooked
   4. avoid ice-cream

Which of the following lists all the correct answers?
   A 1, 2, 3 and 4
   B 1 and 2
   C 1, 2 and 3
   D 2 and 4

17 When drugs against sleep disorders and/or nervosity have been taken and the pilot intends to fly, attention has to be paid to
   A the effect they have on hearing
   B the effect they have on reaction time and perceptual awareness
   C schedule only those pilots, who show no reactions to these medications
   D the fact that there is no difference in the quality of sleep produced under the influence of those drugs compared to normal drug-free sleep

18 With regard to the level of automation of behaviours in the attention mechanism, we know that:
   A the more behaviour is automated, the more it requires attention and the less it frees resources
   B the less behaviour is automated, the less it requires attention and the more it frees resources
   C the more behaviour is automated, the less it requires conscious attention and thus the more it frees mental resources
   D the more behaviour is automated, the more it requires attention and the more it frees Resources
19 The first stage in the information process is
   A the recognition of information
   B selective attention
   C perception
   D sensory stimulation

20 Working memory:
   A is sensitive to interruptions which may erase all or some of its content
   B is unlimited in size
   C is unlimited in duration
   D varies considerably in size between an expert pilot and a novice pilot

21 Which of the following statements summarises the impact that motivation may have on attention?
   A It increases the mobilisation of energy and thus facilitates the quality of alertness and attention
   B It only facilitates attention in extreme cases (risk of death)
   C Motivation has only a small effect on attention, but it facilitates alertness
   D It stimulates attention but may lead to phases of low arousal

22 To resynchronize a circadian rhythm, it takes more time after:
   A south-north flights
   B north-south flights
   C westbound flights
   D eastbound flights

23 Stress management programmes usually involve:
   A the prevention and/or the removal of stress
   B only the removal of stress
   C only the prevention of stress
   D the use of psychoactive drugs

24 As a result of automation in cockpits,
   A communication and coordination call for an even greater effort on the part of the crew members
   B it is easier for the captain to monitor the work of the first officer and vice versa
   C the need for communication between crew members has been decreased
   D communication and coordination have clearly improved in man-man and man-machine relations
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