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Part-FCL Question Bank

SPL

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(Excerpt)

20 – Human Performance and Limitations

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1 The majority of aviation accidents are caused by... (1,00 P.)

- technical failure.
- meteorological influences.
- human failure.
- geographical influences.

2 The "swiss cheese model" can be used to explain the... (1,00 P.)

- state of readiness of a pilot.
- procedure for an emergency landing.
- optimal problem solution.
- error chain.

3 What is the percentage of oxygen in the atmosphere at 6000 ft? (1,00 P.)

- 78 %
- 12 %
- 21 %
- 18.9 %

4 What is the percentage of nitrogen in the atmosphere? (1,00 P.)

- 21 %
- 78 %
- 0.1 %
- 1 %

5 At which altitude is the atmospheric pressure approximately half the MSL value (1013 hPa)? (1,00 P.)

- 18000 ft
- 22000 ft
- 10000 ft
- 5000 ft

6 Air consists of oxygen, nitrogen and other gases.**What is the approximate percentage of other gases? (1,00 P.)**

- 21 %
- 1 %
- 78 %
- 0.1 %

7 Carbon monoxide poisoning can be caused by... (1,00 P.)

- alcohol.
- unhealthy food.
- little sleep.
- smoking.

8 What does the term "Red-out" mean? (1,00 P.)

- "Red vision" during negative g-loads
- Falsified colour perception during sunrise and sunset
- Anaemia caused by an injury
- Rash during decompression sickness

9 Which of the following is NOT a symptom of hyperventilation? (1,00 P.)

- Cyanose
- Disturbance of consciousness
- Spasm
- Tingling

10 Which of the following symptoms may indicate hypoxia? (1,00 P.)

- Joint pain in knees and feet
- Muscle cramps in the upper body area
- Blue discolouration of lips and fingernails
- Blue marks all over the body

11 Which of the human senses is most influenced by hypoxia? (1,00 P.)

- The olfactory perception (smell)
- The tactile perception (sense of touch)
- The auditory perception (hearing)
- The visual perception (vision)

12 From which altitude on does the body usually react to the decreasing atmospheric pressure? (1,00 P.)

- 2000 feet
- 10000 feet
- 12000 feet
- 7000 feet

13 Which altitude marks the lower limit where the the body is unable to completely compensate the effects of the low atmospheric pressure? (1,00 P.)

- 5000 feet
- 22000 feet
- 12000 feet
- 7000 feet

14 What is the function of the red blood cells (erythrocytes)? (1,00 P.)

- Blood coagulation
- Blood sugar regulation
- Oxygen transport
- Immune defense

15 Which of the following is responsible for the blood coagulation? (1,00 P.)

- Capillaries of the arteries
- Red blood cells (erythrocytes)
- Blood plates (thrombocytes)
- White blood cells (leucocytes)

16 What is the function of the white blood cells (leucocytes)? (1,00 P.)

- Immune defense
- Blood coagulation
- Oxygen transport
- Blood sugar regulation

17 What is the function of the blood platelets (thrombocytes)? (1,00 P.)

- Oxygen transport
- Blood sugar regulation
- Immune defense
- Blood coagulation

18 Which of the following is NOT a risk factor for hypoxia? (1,00 P.)

- Blood donation
- Smoking
- Menstruation
- Diving

19 What is an appropriate reaction when a passenger during cruise flight suddenly feels uncomfortable? (1,00 P.)

- Avoid conversation and choose a higher airspeed
- Adjust cabin temperature and prevent excessive bank
- Switch on the heater blower and provide thermal blankets
- Give additional oxygen and avoid low load factors

20 What is the correct term for an involuntary and stereotypical reaction of an organism to the stimulation of a receptor? (1,00 P.)

- Reduction
- Coherence
- Virulence
- Reflex

21 What is the correct term for the system which, among others, controls breathing, digestion, and heart frequency? (1,00 P.)

- Critical nervous system
- Autonomic nervous system
- Automatical nervous system
- Compliant nervous system

22 What is the parallax error? (1,00 P.)

- Wrong interpretation of instruments caused by the angle of vision
- Misperception of speed during taxiing
- Long-sightedness due to aging especially during night
- A decoding error in communication between pilots

23 Which characteristic is important when choosing sunglasses used by pilots? (1,00 P.)

- Curved sidepiece
- Non-polarised
- Unbreakable
- No UV filter

24 The connection between middle ear and nose and throat region is called... (1,00 P.)

- inner ear.
- eardrum.
- cochlea.
- eustachian tube.

25 In which situation is it NOT possible to achieve a pressure compensation between the middle ear and the environment? (1,00 P.)

- During a light and slow climb
- Breathing takes place using the mouth only
- All windows are completely closed
- The eustachien tube is blocked

26 Wings level after a longer period of turning can lead to the impression of... (1,00 P.)

- starting a climb.
- steady turning in the same direction as before.
- turning into the opposite direction.
- starting a descent.

27 Which of the following options does NOT stimulate motion sickness (disorientation)? (1,00 P.)

- Non-accelerated straight and level flight
- Head movements during turns
- Turbulence in level flight
- Flying under the influence of alcohol

28 Which optical illusion might be caused by a runway with an upslope during the approach? (1,00 P.)

- The pilot has the feeling that the approach is too low and therefore approaches the runway above the regular glide slope
- The pilot has the feeling that the approach is too slow and speeds up above the normal approach speed
- The pilot has the feeling that the approach is too fast and reduces the speed below the normal approach speed
- The pilot has the feeling that the approach is too high and therefore descends below the regular glide slope

29 What impression may be caused when approaching a runway with an upslope? (1,00 P.)

- An undershoot
- A landing beside the centerline
- An overshoot
- A hard landing

30 The occurrence of a vertigo is most likely when moving the head... (1,00 P.)

- during a turn.
- during a straight horizontal flight.
- during a climb.
- during a descent.

31 A Grey-out is the result of... (1,00 P.)

- hyperventilation.
- tiredness.
- hypoxia.
- positive g-forces.

32 Visual illusions are mostly caused by... (1,00 P.)

- binocular vision.
- colour blindness.
- rapid eye movements.
- misinterpretation of the brain.

33 The average decrease of blood alcohol level for an adult in one hour is approximately... (1,00 P.)

- 0.01 percent.
- 0.03 percent.
- 0.1 percent.
- 0.3 percent.

34 Which answer states a risk factor for diabetes? (1,00 P.)

- Sleep deficiency
- Overweight
- Smoking
- Alcohol consumption

35 A risk factor for decompression sickness is... (1,00 P.)

- sports.
- 100 % oxygen after decompression.
- scuba diving prior to flight.
- smoking.

36 Which statement is correct with regard to the short-term memory? (1,00 P.)

- It can store 7 (± 2) items for 10 to 20 seconds
- It can store 5 (± 2) items for 1 to 2 minutes
- It can store 10 (± 5) items for 30 to 60 seconds
- It can store 3 (± 1) items for 5 to 10 seconds

37 For what approximate time period can the short-time memory store information? (1,00 P.)

- 3 to 7 seconds
- 10 to 20 seconds
- 35 to 50 seconds
- 30 to 40 seconds

38 What is a latent error? (1,00 P.)

- An error which only has consequences after landing
- An error which has an immediate effect on the controls
- An error which is made by the pilot actively and consciously
- An error which remains undetected in the system for a long time

39 The ongoing process to monitor the current flight situation is called... (1,00 P.)

- situational thinking.
- situational awareness.
- anticipatory check procedure.
- constant flight check.

40 Regarding the communication model, how can the use of the same code during radio communication be ensured? (1,00 P.)

- By the use of proper headsets
- By a particular frequency allocation
- By the use of radio phraseology
- By using radios certified for aviation use only

41 In what different ways can a risk be handled appropriately? (1,00 P.)

- Avoid, ignore, palliate, reduce
- Avoid, reduce, transfer, accept
- Extrude, avoid, palliate, transfer
- Ignore, accept, transfer, extrude

42 Under which circumstances is it more likely to accept higher risks? (1,00 P.)

- Due to group-dynamic effects
- If there is not enough information available
- During check flights due to a high level of nervousness
- During flight planning when excellent weather is forecast

43 Which dangerous attitudes are often combined? (1,00 P.)

- Invulnerability and self-abandonment
- Self-abandonment and macho
- Macho and invulnerability
- Impulsivity and carefulness

44 What is an indication for a macho attitude? (1,00 P.)

- Risky flight maneuvers to impress spectators on ground
- Comprehensive risk assessment when faced with unfamiliar situations
- Quick resignation in complex and critical situations
- Careful walkaround procedure

45 Which factor can lead to human error? (1,00 P.)

- Proper use of checklists
- The bias to see what we expect to see
- Double check of relevant actions
- To be doubtful if something looks unclear or ambiguous

46 What is the best combination of traits with respect to the individual attitude and behaviour for a pilot? (1,00 P.)

- Introverted - stable
- Introverted - unstable
- Extroverted - stable
- Extroverted - unstable

47 Complacency is a risk due to... (1,00 P.)

- increased cockpit automation.
- the high error rate of technical systems.
- the high number of mistakes normally made by humans.
- better training options for young pilots.

48 The ideal level of arousal is at which point in the diagram?

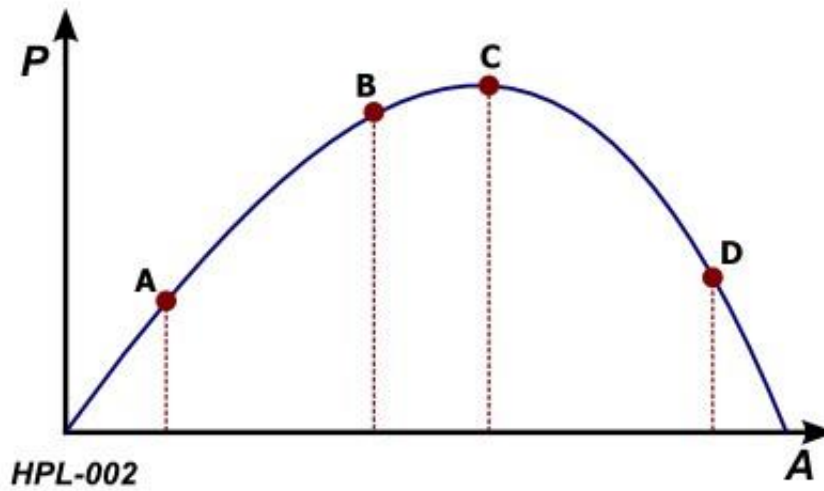
See figure (HPL- 002)

P = Performance

A = Arousal / Stress (1,00 P.)

Siehe Anlage 1

- Point B
- Point C
- Point D
- Point A



49 At which point in the diagram will a pilot find himself to be overstrained?

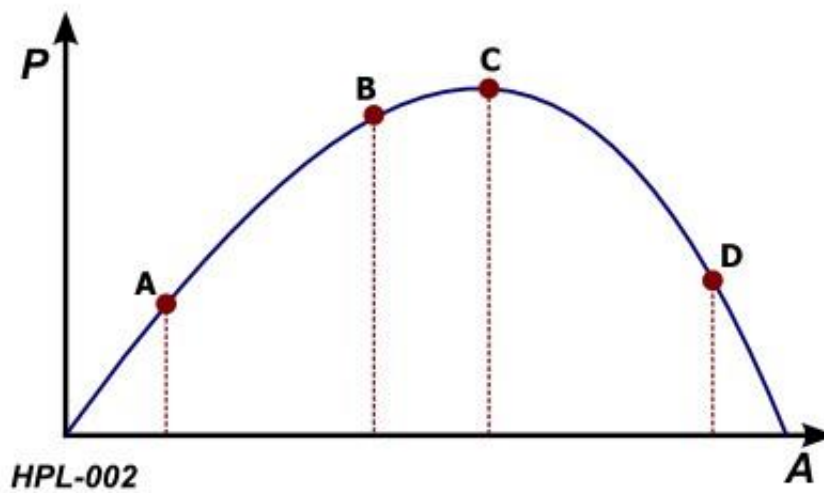
See figure (HPL-002)

P = Performance

A = Arousal / Stress (1,00 P.)

Siehe Anlage 1

- Point B
- Point C
- Point A
- Point D



50 Which of the following qualities are influenced by stress?

1. Attention
2. Concentration
3. Responsiveness
4. Memory (1,00 P.)

- 1, 2, 3
- 2, 4
- 1
- 1, 2, 3, 4

51 Which answer is correct concerning stress? (1,00 P.)

- Everybody reacts to stress in the same manner
- Stress and its different symptoms are irrelevant for flight safety
- Stress can occur if there seems to be no solution for a given problem
- Training and experience have no influence on the occurrence of stress

52 During flight you have to solve a problem, how do you proceed? (1,00 P.)

- There is no time for solving problems during flight
- Solve problem immediately, otherwise refer to the operating handbook
- Contact other pilot via radio for help, keep flying
- Primarily fly the airplane and keep it stable, then attend to the problem and keep flying the airplane

Anlage 1

