



Diver UDI *

Open Water Diver

Examination sheet A



First name:..... Last name:..... Date:.....

*Time limit: 60min, allowed tools: dive table, pocket calculator
The right answers should be clearly marked on this sheet.
Please note that even multiple answers can be correct.*

To pass, at least 30 of the 40 questions must be answered correctly.

01. The composition of our exhaled air is in volume percent?

	Nitrogen (N ₂)	Oxygen (O ₂)	Carbondioxid (CO ₂)
A	88%	10%	2%
B	78%	21%	1%
C	78%	1%	17%
D	58%	40%	2%
E	78%	17%	4%

02. Which ambient pressure prevails at 40 m depth?

- A** 5bar
- B** 4,5bar
- C** The pressure triples.
- D** 6bar
- E** 4bar

03. You seem to have changed objects underwater, how?

- A** Twice as big
- B** One third bigger
- C** Half the size
- D** One quarter bigger and one third closer
- E** One quarter closer

04. What is a barotrauma?

- A A leak in the diving mask
- B A blow-off regulator
- C A burn by a jellyfish
- D A pressure injury of cavities during the ascent or descent.
- E Chest pain after the dive

05. From which depth is a nitrogen narcosis to be expected?

- A 6m - 12m
- B 30m - 40m
- C Only deeper than 60m
- D Can only occur when diving in very warm water from 35 m
- E Occurs from 25m especially on dives with nitrox mixtures.

06. Which factors favor an "essoufflement"?

- A Starke Anstrengung unter Wasser/Strong effort under water
- B Too tight diving suit
- C Poor training condition
- D Defective regulator and / or defective cylinder valve
- E All the answers above are correct.

07. Which of the statements about "listening underwater" are correct?

- A I hear much worse underwater than on the surface.
- B The speed of sound under water is higher than at the surface.
- C I can not locate the direction of the sound source.
- D There is no difference to the listening to the surface.
- E I can not locate the distance to the sound source.

08. You are optimally balanced under water and lose your weight belt.

- A I'm descending immediately.
- B I keep the current depth.
- C I'm ascending.
- D The BCD empties immediately.
- E The BCD doubles its volume.

09. What is the nitrogen content (N₂) in the ambient air?

- A 21%
- B 100%
- C 1 bar
- D 78%
- E 17%

10. At greater depths, more heat is removed from your body.

- A Because the diving suit loses insulation with increasing depth.
- B Because the water is colder at greater depths.
- C Because the air in the DTG cools to ambient temperature and has to be reheated by the body.
- D Because the air consumption is higher at greater depths and thus more heat is removed from the body.
- E All answers given above are correct

11. You fill your cylinder on the compressor, while the cylinder heats up to 45°C. After a while the cylinder has cooled down again to 20°C.

- A As a result, pressure in the cylinder has risen further.
- B The pressure in the cylinder has not changed since the valve was closed.
- C The pressure in the cylinder has also decreased with the cooling.
- D If the cylinder is heated above 40°C, the cylinder may burst.
- E None of the above answers is correct.

12. What is called partial pressure?

- A The temperature within the cylinder relative to the absolute zero point.
- B The partial pressure of a gas within a gas mixture.
- C The maximum allowable nitrogen pressure in our muscle tissue.
- D The density ratio of two gases to each other.
- E The pressure in the cylinder at which the dive must be canceled.

13. After a diving accident you call the rescue service.

- A I dial 555 and wait for my location.
- B I dial the to reach the ambulance service. (Insert your national number)
- C I stop the conversation with the rescue service only when I am asked to do so by the control center.
- D I report the accident with the keyword "Sea Rescue"
- E I call the keyword "diving accident" on my emergency call.

14. How do you behave when losing your buddy?

- A I continue to dive as the dive site is well known to us.
- B I give some knocking sounds, so he knows where I am.
- C I wait for the spot until my buddy returns back. But watch constantly my pressure gauge.
- D I immediately initiate the emergency descending.
- E I look around for about 1 minute and then turn up to the water surface according to the rules.

15. Your cylinder 15L is filled with 180bar, with which amount of air do you calculate your dive in a lake?

- A 2700barL
- B 1950barL ((180bar – 50bar reserve) * 15L)
- C 750barL
- D Without RMV (respiratory minute volume) you can not calculate that.
- E (200bar – 180bar) * 15L = 300barL

16. Calculate the air consumption for a dive with a cylinder 12L:
Depth 14m, bottom time 17min, RMV 30L / min (round up the result).

Bottom time: $2,4\text{bar} \times 17\text{min} \times 30\text{L}/\text{min} = 1224\text{barL}$

Descend: $2,4\text{bar} \times 1,4\text{min} \times 30\text{L}/\text{min} = 101\text{barL}$

Safety stop: $1,3\text{bar} \times 3\text{min} \times 30\text{L}/\text{min} = 117\text{barL}$

Total: 1442barL

Calculates the student with a safety stop at 5m and / or 5min, so that's just correct as also.

17. **During a dive, you notice that you've crossed the no decompression limit. How do you behave?**

- A I immediately ascend to half the depth.
- B I inform my buddy and we initiate the emergency ascend.
- C I do not do anything, because the no decompression limit only applies to cold-water dives.
- D I take this fact into account when exiting and follow up all necessary stops and times.
- E I'll tell it to my buddy after the dive so we can avoid it on the next dive.

18. **In which order are colors no longer visible under water?**

- A Violet - blue - green - yellow - orange - red
- B Violet - green - blue - red - orange - yellow
- C The light only gets darker, but the colors are still recognizable.
- D Red - orange - yellow - green - blue - purple
- E None of the answers is correct

19. **You drive back to home from the sea over a mountain-pass road. How does the ambient air pressure change to the highest point?**

- A The air pressure decreases.
- B The air pressure is halved.
- C The air pressure increases.
- D Only the nitrogen content in the ambient air adapts to the altitude.
- E If the weather does not change, the air pressure remains the same.

20. Your cylinder 10L is stays in the sun after the dive. How is the pressure in the cylinder changing?

- A** The pressure in the cylinder is rising.
- B** The pressure in the cylinder sinks.
- C** It remains unchanged because it is stabilized by the regulator.
- D** The pressure remains the same, the volume is changing.
- E** None of the answers is correct.

21. In which cycle is the CPR one-aid method ventilated and chest compression performed?

- A** 30x respiration and 2x chest compression
- B** 15x chest compressions and 2x respiratory
- C** 15x thoracic compression and 15x breathing
- D** 2x chest compression and 15x breathing
- E** 30x thorax compression and 2x respiratory

22. What actions do you perform in the event of a shock of your buddy?

- A** Overlift head and bring to a stable side position.
- B** Position legs upright, protect against cooling or overheating, administer liquid, if necessary give 100% oxygen.
- C** Immediately drive to the next pressure chamber.
- D** Carry out the CPR until the ambulance arrives.
- E** Just calm the casualty until he feels better.

23. In which order do you perform the following dives?

- A** Apnea Dive 10m - Scuba Dive 35m - Scuba Dive 12m
- B** Apnea Dive 5m - Scuba Dive 19m - Scuba Dive 37m
- C** Scuba Diving 35m - Scuba Diving 27m - Apnea Dive 10m
- D** Apnea dives may not be combined with scuba dives.
- E** Apnea Dive 10m - Scuba Dive 12m - Scuba Dive 35m

24. Under what conditions can a barotrauma occur?

- A While descending.
- B While ascending.
- C When you ascend with bated breath.
- D When descending without pressure equalization in the middle ear.
- E All answers are correct.

25. You get a cold during a diving holiday, how are you doing?

- A Nevertheless I dive, because everything is paid.
- B I wait until the cold has subsided completely, before I dive again.
- C I take an extra dose of medicine before the dive.
- D In warm waters a cold does not matter - I go diving.
- E I dive a maximum of 10m deep.

26. Which statements about the environment are correct?

- A Scuba divers use the designated parking spaces at the lake.
- B Scuba divers do not feed and any wildlife.
- C Scuba divers stay away from nesting and spawning grounds.
- D Scuba divers harpoon only in approved waters.
- E Scuba divers pay attention to a sufficient distance to the water bottom.

27. What does that mean when a diver moves his arms up and down on the surface?

- A Please open my reserve.
- B No ear pressure equalization.
- C He welcomes a friend on the shore.
- D Emergency situation.
- E He has lost one or both fins.

28. Your dive partner shows you the underwater sign "Thumbs up". How do you react?

A I also say "thumbs up", so we both know that everything is alright.

B I watch the water surface, because there could be a boat.

C I also answer with "thumbs up" and both start to ascend in compliance with the rules.

D I inflate the BCD of my buddy to initiate his emergency ascending.

E I answer with "OK" and continue diving.

29. You perform an apnea dive and reach 10m depth. What happens to your lungs?

A Their volume has doubled.

B The lungs volume has been halved.

C Fluid escapes into the alveoli.

D The lungs can tear.

E The lungs press on the diaphragm.

30. You have mounted your first stage on the cylinder and the valve on the cylinder is still closed. You suck on the regulator easily and notice that you can draw air. What are you doing?

A Nothing, because this is normal for dry membranes in the regulator.

B I pay close attention to the function of the regulator during the dive.

C During the buddycheck I tell this to my buddy.

D The membrane is dirty or torn, so I do not dive.

E I'll report that at the next due revision.

31. **How is the ear subdivided?**

- A Outer, middle and inner ear.
- B Outer ear canal and middle ear.
- C Auricle, eustachian tube, inner ear.
- D Auricle, ear canal, eardrum.
- E Inner and outer ear

32. **When diving, you realize that you can not perform pressure equalization on the left ear. What are you doing?**

- A Immediate emergency ascending to prevent barotrauma.
- B Informing the buddy, reduce the diving depth and make further attempts. If this fails, finish the dive.
- C Informing the buddy, increase depth by 5m and swallow.
- D Press correctly, as the water pressure has narrowed the Eustachian tube.
- E None of the answers is correct.

33. **When may you improve your apnea skills in the indoor pool without supervision?**

- A As soon as I have completed the diving course successfully.
- B After I gave the lifeguard the sign to descend.
- C Never, since I do not dive and train without supervision / accompaniment.
- D Under the conditions in the indoor pool, this is possible at any time without risk.
- E If I've informed the cashier at the entrance and I'm well trained.

34.



What is the meaning of this flags?

- A Diver underwater.
- B Turning to surfers.
- C Emergency signal for non-motorized boats
- D Used to detect the wind direction during apnea dives
- E Is a fashionable addition to buoys and is irrelevant.

35. What are alveoli?

- A The red blood cells.
- B Air bubbles in the body tissue.
- C A coral species in the red sea.
- D** The pulmonary alveoli in the lungs.
- E Itchy pimples after a dive.

36. At what time interval must scuba tanks be used for technical inspection?

Diving tanks must be subjected to a technical inspection all Months.
→ The correct entry for each country is made here.

37. What applies to a regulator?

- A It reduces the cylinder pressure to 1 bar.
- B It raises the cylinder pressure to the ambient pressure.
- C It reduces the cylinder pressure to the pressure in the BCD.
- D** It reduces the cylinder pressure to the ambient pressure.
- E It raises the cylinder pressure before the dive.

38.	Explain the following terms:
Bottom time	This is the time from starting to descend to the beginning of ascend.
Ascend time	This is the time from starting the ascending until reaching the surface of the water.
Dive time	The total dive time from the beginning of the dive until it reaches the surface.
Surface time	The time on the surface between two dives.
No decompression time	The bottom time, which does not force to comply with decompression stops. However, a safety stop should be carried out.

39. What do you pay attention to when returning to the water surface with your dive partner?

- A** On the rise of my bubbles.
- B** To hold your breath as long as possible.
- C** I look down to see if nothing has been forgotten there.
- D** I look up, observe the surface of the water and watch out for any sounds from boats.
- E** On the ascent rate.

40. You perform a dive on 26m and have a bottom time of 35min. Determine the decompression times and the repetition group from the dive table.

Readen from the table at 27m and 38min:

- 3min to 6m
- 13min at 3m
- Repetition group G

Passed:YES..... /NO.....

Oral examination performed:YES..... /NO.....

Date, signature, stamp of the examiner:

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Place of exam:.....