

Theory Module Assessment B

Name:

Instructions:

- This assessment may be conducted as a written test or verbally with an instructor.
- The assessment is time limited, around 1 minute should be allowed per question. If the assessment is to be completed in one go, then 40 minutes should be allowed.
- If you have any special requirements, you can discuss having additional time with your instructor.
- If you have any special requirements you can ask your instructor to print this paper with more space/bigger font/different font, different colours etc.
- You may use a pen/pencil, calculator and if relevant the appropriate BSAC decompressions table ('88/Nitrox) – no other references are allowed
- Take your time to read each question and all the answers carefully before answering and some possible answers may be quite similar.
- Each question requires only **one** answer.
- Please mark your answer on the answer sheet or directly onto this paper as directed by your instructor.
- If you make a mistake/change your mind – please clearly cross through the previously answer and place a mark against your new answers, making sure it is clear which answer(s) you intend.
- You can use rough paper to do any calculations, which should be given to your instructor at the end.
- Each section of the assessment is marked separately - to pass you need to achieve 4 out of 5 for each module.
- Once you have finished your instructor will review and discuss your answers with you.

Introduction

1. **Which of the following is not a benefit of BSAC membership?**
 - ☐ A: Third party-liability insurance
 - ☐ B: Personal travel insurance
 - ☐ C: Monthly subscription to SCUBA magazine
 - ☐ D: Savings on holidays through BSAC Travel Partners
 - ☐ E: Dive and train with friends
2. **Discovery Divers are qualified to**
 - ☐ A: Dive to 12m with Dive Leader, under the supervision of a dive manager
 - ☐ B: Go diving unsupervised to 25m with a Sports
 - ☐ C: Dive to 30m with a Dive Leader, under the supervision of a dive manager
 - ☐ D: Go diving unsupervised to 20m with another Ocean Diver
 - ☐ E: Dive to 25m with Sports Diver, under the supervision of a dive manager
3. **What is the next level qualification you can train for having completed the Discovery Diver Qualification?**
 - ☐ A: First Class
 - ☐ B: Ocean Diver
 - ☐ C: Sports Diver
 - ☐ D: Dive Leader
 - ☐ E: First Class
4. **Who advises on all aspects of diving practice, training and safety?**
 - ☐ A: BSAC Branch
 - ☐ B: BSAC Council
 - ☐ C: Branch Committee
 - ☐ D: SCUBA magazine
 - ☐ E: National Diving Committee
5. **Which of the following is not an officer of a typical branch?**
 - ☐ A: Diving Officer
 - ☐ B: Chairman
 - ☐ C: Treasurer
 - ☐ D: Secretary
 - ☐ E: Lead Instructor

OT INTRODUCTION SCORE: / 5

PASS / **FAIL**

OT1 – Adapting to the underwater world

6. The neck of a diving cylinder carries the following markings:
HYDROTECH-M25X2 FABER 93/9504/904 TP 348 BAR 0693 EN5045/1 CM/S
CP 232 BAR 15°C 12.0 L 12.7 Kg 795V 797 899V 10 01 2004/04 2006/10
What is the test pressure of this cylinder?
- ☐ A: 93 bar
 - ☐ B: 232 bar
 - ☐ C: 348 bar
 - ☐ D: 904 bar
 - ☐ E: 504 bar
7. The expansion of a given volume of gas on ascent is least between:
- ☐ A: 20m and 15m
 - ☐ B: 18m and 12m
 - ☐ C: 14m and 9m
 - ☐ D: 10m and 5m
 - ☐ E: 5m and the surface
8. At what pressure will the second stage of a demand valve deliver gas into a divers' mouth at 20m?
- ☐ A: 1 bar
 - ☐ B: 1.5 bar
 - ☐ C: 2 bar
 - ☐ D: 3 bar
 - ☐ E: 4 bar
9. Which of the following additional garments will provide the greatest reduction in heat loss compared to a wetsuit alone?
- ☐ A: neoprene boots
 - ☐ B: neoprene gloves
 - ☐ C: neoprene hood
 - ☐ D: neoprene knee protectors
 - ☐ E: cotton T-shirt
10. What happens to the body when it is subjected to excessive cooling, such as being immersed in cold water?
- ☐ A: sweating commences
 - ☐ B: blood flow to the peripheral shell is reduced
 - ☐ C: blood flow to the peripheral shell is increased
 - ☐ D: pulse rate increases
 - ☐ E: blood pressure falls

OT1 SCORE: / 5☐ PASS / ☐ FAIL

OT2 – The effects of diving on the body

11. In which of the following diving situations is frequent ear clearing most likely to be required?
- ☐ A: on the ascent
 - ☐ B: on the descent
 - ☐ C: on both the ascent and descent
 - ☐ D: on the bottom
 - ☐ E: during an uncontrolled buoyant ascent
12. Other things being equal, in which of the following situations would the body use most energy?
- ☐ A: finning down a shot line against a slight current
 - ☐ B: drifting slowly along a wall at 10m in a current
 - ☐ C: ascending a shot line at the correct rate
 - ☐ D: ascending rapidly having lost control of buoyancy
 - ☐ E: descending down a wall
13. What advantage does breathing Nitrox give a BSAC Ocean Diver?
- ☐ A: lower risk of DCI
 - ☐ B: longer no-stop times
 - ☐ C: lower risk of oxygen toxicity
 - ☐ D: lower equipment and serving costs
 - ☐ E: greater maximum depth
14. Which of these most accurately describes the gases that are present in a diver's exhalations?
- ☐ A: oxygen and nitrogen
 - ☐ B: carbon dioxide and nitrogen
 - ☐ C: nitrogen, water vapour and oxygen
 - ☐ D: carbon dioxide, water vapour and oxygen
 - ☐ E: nitrogen, water vapour, oxygen and carbon dioxide
15. What additional steps are required before diving with nitrox, as compared to air?
- ☐ A: analyse the gas and record mixture and MOD
 - ☐ B: check the pressure and for leaks
 - ☐ C: check the mixture label
 - ☐ D: check pressure and analyse gas
 - ☐ E: check the MOD

OT2 SCORE: / 5

PASS / FAIL

OT3 – Going diving

16. Why should you not wave to the surface cover when you surface from a dive?

- ☐ A: it is bad diving etiquette to be too demonstrative
- ☐ B: you might knock your buddy's mask off
- ☐ C: the effort might provoke DCI
- ☐ D: waving is the signal for distress at the surface
- ☐ E: you will distract the surface cover from watching for other divers

17. If separated from your buddy on a dive you should:

- ☐ A: look around for other divers and continue your dive with them
- ☐ B: continue the dive alone and ascend normally
- ☐ C: look around for a few minutes; make an urgent ascent to the surface
- ☐ D: stop; do a full turn looking for buddy or bubbles; ascend and repeat; controlled ascent to surface
- ☐ E: retrace your steps to the point of entry

18. Water absorbs some colours more strongly than others, so as you dive deeper the colour that is absorbed from daylight first is:

- ☐ A: red
- ☐ B: orange
- ☐ C: blue
- ☐ D: green
- ☐ E: violet

19. Other things being equal, it is easiest to swim with any slight current, but in some situations this could cause problems. In which of the following situations might 'going with the flow' cause problems?

- ☐ A: diving from a patrolling RIB
- ☐ B: diving in a lake with access from a track running round its shore
- ☐ C: diving from an anchored liveaboard without a tender
- ☐ D: diving from a small patrolling hardboat
- ☐ E: diving from an anchored liveaboard with a tender

20. What does the dive planning acronym SEEDS stand for?

- ☐ A: Safety, Exercise, Evaluate, Discipline & Signals
- ☐ B: Safety, Exercise, Equipment, Discipline & Signals
- ☐ C: Signals, Elapsed time, Depth & Safety
- ☐ D: Stop, Elapsed time, Exercise, Distress & Safety
- ☐ E: Sound, Exercise, Evaluate, Depth & Signals

OT3 SCORE: / 5

PASS / **FAIL**

OT4 – Dive planning

21. In the BSAC tables, dive time for a no stop dive is defined as the time between:
- ☐ A: leaving the surface and returning to the surface
 - ☐ B: leaving the bottom and returning to the surface
 - ☐ C: leaving the surface and starting the ascent
 - ☐ D: leaving the surface and returning to 9m
 - ☐ E: leaving the surface and returning to 6m
22. Assuming you have not dived in the previous 16 hours what is the maximum no stop time in minutes allowed for a dive to 19m on BSAC tables breathing air?
- ☐ A: 51
 - ☐ B: 32
 - ☐ C: 28
 - ☐ D: 37
 - ☐ E: 30
23. You surface at 1130 hrs following a dive time of 35 minutes at 17m on Table A. You wish to dive again to 17m at 1500 the same day. What is the maximum no stop time in minutes allowed?
- ☐ A: 15
 - ☐ B: 27
 - ☐ C: 32
 - ☐ D: 47
 - ☐ E: 51
24. What is the surfacing code after a first dive to 15m for a dive time of 22 minutes?
- ☐ A: A
 - ☐ B: B
 - ☐ C: C
 - ☐ D: D
 - ☐ E: E
25. Which of the following is the gas which must be managed in order to avoid DCI?
- ☐ A: air
 - ☐ B: carbon dioxide
 - ☐ C: nitrogen
 - ☐ D: Nitrox
 - ☐ E: oxygen

OT4 SCORE: / 5 PASS / FAIL

OT5 – What happens if?

- 26. If, after a dive, you experience some mild symptoms that could be DCI, but you think are probably not, should you:**
- ☐ A: tell the Dive Manager immediately
 - ☐ B: tell the Dive Manager and if they get worse telephone a Medical Referee
 - ☐ C: wait until you get home, and see your GP if the symptoms remain
 - ☐ D: wait until you get home, and phone a Medical Referee if the symptoms remain
 - ☐ E: ignore the symptoms, since you do not have DCI
- 27. You lose your weightbelt at 20m and make an uncontrolled buoyant ascent. What should you do to reduce your chance of lung damage?**
- ☐ A: hold your breath on the ascent
 - ☐ B: breathe normally on the ascent
 - ☐ C: breathe out on the ascent
 - ☐ D: borrow another weightbelt and resume the dive
 - ☐ E: inform the Dive Manager
- 28. Which effect of sea sickness may predispose a diver to DCI?**
- ☐ A: loss of balance
 - ☐ B: loss of motivation
 - ☐ C: inner ear damage
 - ☐ D: dehydration
 - ☐ E: vomit clogging the DV
- 29. As an Ocean Diver how do you avoid the risks of nitrogen narcosis?**
- ☐ A: swimming slowly
 - ☐ B: maximum depth limit of 20m
 - ☐ C: using nitrox as a breathing gas
 - ☐ D: breathing normally
 - ☐ E: avoiding alcohol
- 30. The incident pit is a very effective visual aid which many divers remember for the whole of their diving career. Which of the following messages does it convey?**
- ☐ A: decompression dive profile
 - ☐ B: resolve problems early
 - ☐ C: divers must learn to cope with panic
 - ☐ D: it is normal to be frightened on a dive
 - ☐ E: there is sufficient depth of water

OT5 SCORE: / 5

☐ PASS / ☐ FAIL

OT6 – Enjoying your diving

- 31. Which of the following is the recommended emergency signal with a torch on a night dive?**
- ☐ A: rapid movement of the torch beam up and down
 - ☐ B: rapid circular movement of the torch beam
 - ☐ C: rapid movement of the torch beam from side to side
 - ☐ D: flashing SOS in Morse Code
 - ☐ E: shine the torch on your hand as you wave the daytime distress signal
- 32. Which of the following applies to diving from liveboards?**
- ☐ A: they are ideal for divers who get seasick
 - ☐ B: they are suitable for people who dislike living in close proximity to others
 - ☐ C: they enable travel to remote and rarely dived locations
 - ☐ D: they have limited shelter so you need to wear protective clothing in bad weather
 - ☐ E: they are highly manoeuvrable so can get close in amongst rocks and reefs
- 33. If you alter your equipment or the location where you dive, you may need to change your weights in order to keep your buoyancy the same. Which of the following changes from your normal equipment for diving in the sea is likely to require you to add weight to your weightbelt?**
- ☐ A: in the sea with longer fins
 - ☐ B: diving in freshwater with your normal equipment for the sea
 - ☐ C: starting a (short) dive in the sea with your cylinder only half full
 - ☐ D: a hired aluminium cylinder the same capacity as your normal steel one, in the sea
 - ☐ E: a new BC with more lift than your old one, in the sea
- 34. If you remove an item from a wreck without the owner's permission:**
- ☐ A: you should report it to the Receiver of Wreck
 - ☐ B: you can keep it if it is less than 100 years old
 - ☐ C: you should report it to BSAC HQ
 - ☐ D: you should report it to the nearest police station
 - ☐ E: it becomes yours if you keep it for a year and a day
- 35. If you are diving on a reef from a boat and encounter a gentle current, you should:**
- ☐ A: hold onto the reef until the current subsides
 - ☐ B: descend and fin with current
 - ☐ C: abort the dive
 - ☐ D: pull yourself along the reef
 - ☐ E: remain neutrally buoyant and drift with the current

OT6 SCORE: / 5 PASS / FAIL