



EXAMINATION IN INSHORE NAVIGATION 11.12.2015

The points given for each correct answer is marked next to the problem. Maximum points are 30. The limit for passing the examination is 15 points. Use the enclosed chart and deviation card.

Name \_\_\_\_\_
Soc. Sign \_\_\_\_\_
Address \_\_\_\_\_
Post Office \_\_\_\_\_
Phone \_\_\_\_\_

Teacher \_\_\_\_\_
Examin. site \_\_\_\_\_
Org. Assoc \_\_\_\_\_
I order DIPLOMA [ ] CERTIFICATE [ ]
E-mail: \_\_\_\_\_

Before you start, read this introduction!

The vessel used is a 13 m long power-driven vessel. The draught is 1,2 m and the height is 3,4 m. The vessel is equipped with a standard compass (the deviation card below), a fixed spare compass, log and an echo sounder. Variation =7°E for the examination chart. The problems are not connected to each other and may be solved in random order.

DEVIATION CARD
STANDARD COMPASS

1. You are at the beginning of the 3,0 m fairway southwest of Lappören and you decide to check the deviation of your spare compass. You steer the 3,0m fairway strait towards the leading marks at Stångklubb – Skomakaren. Your compass course according to the spare compass is 080°. What is the deviation of the spare compass at this course?

2 p

[ ]

2. You continue the journey along the 3,0m fairway and you proceed with safe speed. Mention four factors that shall be taken into account when determining safe speed according to the International Regulations for Preventing Collisions at Sea.

2 p

[ ]

Table with 3 columns: CC, dev, CM. Rows from 0° to 360°.

**3.** You are underway in the northeast direction along the 3,0m fairway southwest of Lappören. At 14.30 the southern end of Lappören is abeam. You continue along the 3,0m fairway. At what time do you arrive at the 4,5m fairway if your speed is 8 knots?

**3 p**

**4.** You are in the position  $63^{\circ}55,45'N$   $025^{\circ}45,20'E$  and follow the 4,5m fairway in the north direction.

**a)** What mark do you first approach on your starboard side in the travel direction of your boat and what colour does the mark have in daylight?

**1 p**

**b)** What colour do the reflectors on the mark in a) have and is the mark lighted?

**1 p**

**5.** You are north of Öland in the position  $63^{\circ}56,20'N$   $025^{\circ}43,75'E$  and underway westward. There is a light breeze and a sailing boat approaches you from southwest on your port bow. The sailing boat has the sails set and shows the day shape according to the below figure. The compass bearing to the sailing boat does not change and you determine that there is a risk of collision.



**a)** Which one of the vessels (yours or the other), according to the International Regulations for Preventing Collisions at Sea, shall stay out of the way of the other vessel? Motivate your answer!

**1 p**

**b)** What actions shall, according to the International Regulations for Preventing Collisions at Sea, be taken by the stand-on vessel?

**1 p**

6. You are northwest of Öland and to determine the position of the vessel you use a hand held bearing compass. The compass bearing to the lighthouse Norrudd is  $157^\circ$  and the compass bearing to the beacon tower Norrbådan is  $097^\circ$ .

What is the position of the vessel at the time of the observation?

3 p

7. You are northwest of Öland in the position  $63^\circ 56,1'N$   $025^\circ 37,0'E$  and you set the course straight towards the lighthouse Norrudd.

a) What compass course do you steer?

2 p

b) What is the compass course for the opposite course?

1 p

c) Thick mist stops the journey towards Norrudd and you decide to stop and wait for the mist to clear. What sound signal do you sound in this situation according to the International Regulations for Preventing Collisions at Sea?

1 p

8. You are northwest of Lappören in the position  $63^\circ 54,20'N$   $025^\circ 36,65'E$  and your plan is to anchor on the north side of Kaksoset ( $63^\circ 54,50'N$   $025^\circ 53,25'E$ ). You have adopted “good seamanship” and made your route plan in advance. **Draw the route plan on the examination chart** by marking **the leading lines, turning points and necessary safety borders** that you will be using for a safe navigation. **Check (x) the hazard objects** you have to take in consideration as you navigate! Calculate the compass course, indicate distances and depth information in case you make use of compass, log or echo sounder.

4 p

9. Check the right alternative:

Right    Wrong

a) The variation is the same on all Finnish waters

1 p

b) The course is 090° when you move westward

1 p

c) A sailing boat gives way to a vessel restricted in her ability to manoeuvre.

1 p

d) On pleasure craft the limit for intoxication in water traffic is 1,5 promille alcohol

1 p

10. a) What does the waterway limitation sign aside mean and how do you act?



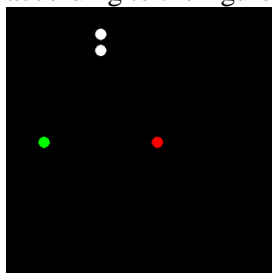
1 p

b) You are underway with a boat and see a mark according to the picture aside. What mark is it?



1 p

c) You are underway in darkness and ahead of you is a vessel from which you see lights according to the figure aside. What vessel is it?



1 p

d) How many flashes are there in the characters of light for the sector light beacon Laitakari and how long is the period?

1 p