



Suomen Navigaatioliitto ry

EXAMINATION IN INSHORE NAVIGATION 14.12.2018

Tot. points

The points given for each correct answer are 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.

Mark your answers also on this examination form. All calculations should appear on this form or on a separate sheet of paper attached to this form. **Answers without calculations are not accepted.**

Name _____

Teacher _____

Soc. Sign. _____

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Before you start, read this introduction!

The vessel used is a 13 m long power-driven vessel, powered by an inboard engine. The draught is 1.2 m and the height is 4 m. The vessel is equipped with i.a. a standard compass (the deviation card below), a fixed spare compass and an echo sounder. **Variation is 7° E. The problems are not connected to each other and may be solved in random order.**

DEVIATION CARD STANDARD COMPASS

CC	dev	CM
0°	-1°	359°
10°	-1°	9°
20°	0°	20°
30°	+1°	31°
40°	+2°	42°
50°	+4°	54°
60°	+4°	64°
70°	+3°	73°
80°	+2°	82°
90°	0°	90°
100°	-1°	99°
110°	-3°	107°
120°	-4°	116°
130°	-6°	124°
140°	-7°	133°
150°	-8°	142°
160°	-8°	152°
170°	-6°	164°
180°	-4°	176°
190°	-3°	187°
200°	-1°	199°
210°	0°	210°
220°	+1°	221°
230°	+3°	233°
240°	+5°	245°
250°	+6°	256°
260°	+8°	268°
270°	+9°	279°
280°	+8°	288°
290°	+6°	296°
300°	+4°	304°
310°	+3°	313°
320°	+2°	322°
330°	+1°	331°
340°	0°	340°
350°	-1°	349°
360°	-1°	359°

1. You have a nautical chart in your boat. In the middle of the compass rose of the chart, there is a text "6°15' E 2010 (8' E)". What is the variation in the area of the chart in 2018?

2p

ANSWER:

2. You decide to check the deviation of your spare compass and steer along the 4,5 m fairway strait towards the leading marks at Skogböle. According to the spare compass, your compass course is 172°. What is the deviation of the spare compass at this course?

2p

ANSWER:

What happens to the personal information that you give us? An authorized person at the SNL Member Society that receives your examination copies your name and personal ID from the examination form to a withdrawal form. The withdrawal form and the examination form will be sent to the SNL. The SNL archives the hard copy of the withdrawal list. Your examination form will be destroyed safely after one year of the examination.

3. a) What day shapes does a vessel restricted in her ability to maneuver show?

ANSWER:

1p

b) When should you switch on the navigation lights of your vessel, according to the International Regulations for Preventing Collisions at Sea?

ANSWER:

1p

c) What is the light characteristic of a lighted south mark?

ANSWER:

1p

d) What are the colors of the reflectors of a south mark (from top)?

ANSWER:

1p

4. Your position is $63^{\circ}57,8' N$, $025^{\circ}45,6' E$. From this position, you steer a compass course of 236° for 3.6 M, after that a compass course of 175° for 2.6 M.

a) What are the coordinates of your arrival position?

1p

ANSWER:

b) Are you allowed to anchor your vessel at your arrival point?

ANSWER:

1p

c) What is the true bearing from your arrival position to the Norrudd lighthouse?

1p

ANSWER:

5. Mention four international distress signals!

ANSWER:

2p

6. Mention four factors that should be taken into account in determining a safe speed, according to the International Regulations for Preventing Collisions at Sea!

ANSWER:

4p

7. You decide to determine your position by using a hand held bearing compass. The compass bearing to the beacon tower Norrbådan is 073° and the compass bearing to the lighthouse Norrudd is 124° . What is your position at the time of observation?

2p

ANSWER:

8. You have spent the night on the south eastern tip of Yttre Sandö ($63^\circ 51,3' N$ $025^\circ 42,7' E$). You have promised to take your friends, a couple, to the Långö harbor ($63^\circ 53,3' N$ $025^\circ 49,0' E$) after waking up in the morning.

- Draw your route plan on the examination chart and write the needed calculations and additional information on the examination form.
- Mark the leading lines and turning points, bound to the landscape or otherwise accurately determined, which you use **to arrive safely at your destination**.
- If safe navigation requires the use of safety borders, mark them on the chart.
- Circle the hazard objects you have to take in consideration as you navigate.
- When using compass or echo sounder, calculate the compass courses to be steered, and mark the depths that you use.

4p

9. You are on the 4,5 m fairway and see the Norrbådan beacon tower directly on your right. You plan to drive along the fairways with a speed of 6.5 knots. What time do you have to start your travel to reach the Skomakaren leading mark directly on your left at 12.15?

3p

ANSWER:

10. Check the right alternative:

- | | Right | Wrong | |
|---|--------------------------|--------------------------|----|
| a) In the vessel mentioned in the introduction, the only light that is visible through 360 degrees is the anchor light. | <input type="checkbox"/> | <input type="checkbox"/> | 1p |
| b) The color of the light of a port lateral mark is red. | <input type="checkbox"/> | <input type="checkbox"/> | 1p |
| c) Distress rockets belong to the obligatory basic equipment of a vessel, according to the Finnish legislation. | <input type="checkbox"/> | <input type="checkbox"/> | 1p |
| d) Variation does not change yearly. | <input type="checkbox"/> | <input type="checkbox"/> | 1p |