

## ASA 105 FINAL EXAM PREP

These prep questions closely resemble the final exam. If you can do these, even if it takes quite awhile, you'll succeed on the ASA test. BTW – this quiz and the actual test are Open Book.

If you like additional exercises, please contact Capt. Dan.

1. Draw or describe a Safe Water Mark

2. Describe the light characteristic of a Safe Water Mark

3. There are two buoys that may be used to mark isolated dangers. Describe or sketch each.

3a. One of these marks indicates a preferred side to pass. Which one and how do you know which is the preferred side?

3b. Draw or describe the regulatory buoy that indicates a danger zone

4. Draw the following charts symbols:

Maritime international boundary

Rock 2 feet above datum

Rock awash at datum

Submerged Rock

Traffic Separation Scheme

Anacapa Lighthouse (East Side)

Capt Dan's 105 Prep

Steep cliff at beach

Coast Guard mooring buoy

Dangerous wreck

Wreck not hazardous to surface traffic

Drying heights above datum

5. T/F Large features are large on a large scale chart
6. T/F A 1:60,000 is large scale compared to a 1:6000
7. List four navigation publications in addition to charts that are important to coastal navigation.
8. You are leaving port in reduced visibility, suddenly a red nun buoy appears dead ahead. You turn Left/Right to avoid the buoy.
9. List the navigation instruments and tools in addition to ship's compass that you would ensure were aboard before embarking on a cruise beyond Gina?

**NAV PLANNING AND COASTAL NAVIGATION PROBLEMS**

**HUNTER 36 SPECS**

Length Overall        35'6"  
 Hull Length         34'6"  
 Waterline Length    30'7"  
 Beam                 12'0"  
 Draft                 6'5"  
 Ballast               5,023 lbs  
 Mast Height         55'3"  
 Sail Area             717 ft sq  
 Fuel Capacity        38 gal  
 Water Capacity      75 gal  
 Holding Tank         30 gal  
 Auxiliary Power     29 Hpl  
 Fuel consumption: .78 gal/hr at 3000 rpm

Use deviation table previously issued.  
 Boat Speed: 4 kts  
 You pass point one at 0800 local time

**10 FILL IN THE BLANKS OF THIS PLAN**

1	FLG "1A"	N41°10.6' W071°33.2'	T	V	M	D	C	Dist	ETE	ETA
2	W OR "A"	N41°16.6' W071°23.9'								
3	R"2"	N41°20.0'' W071°28.5'								

**11**

Fog rolls in when you are about 2 miles from "A". You can't see the buoy, so maintain your DR, turning at the calculated time. The weather clears about 1115, but you are troubled that you can't find R "2" Now it's 1130 and it is nowhere in sight. You take the following bearings with handheld compass.

Pt. Judith Light bears 286 M

Brenton Reef Light bears 045 M

What is your Lat N \_\_\_\_\_ Long W \_\_\_\_\_?  
 What was Set \_\_\_\_\_ Drift \_\_\_\_\_?

## 12

You get a call from home and set out from your last fix at 1140, bound for "The Harbor" Considering the current you just calculated, what is your course PSC, what is your heading, what will your SOG be and, if you depart this point at 1200, when will pass the Fl G 2.5 sec, 33' light at the Harbor?

## 13

You are under sail and the wind is blowing from about 310° T at 15kts. What heading correction will you make for leeway? (Use what you know about your boat on this point of sail).

## 14

There is a wreck about 2 miles from The Harbor. It's between your present position and your destination. You set up a danger bearing off the Fl G "1A" light at the entrance to "The Harbor" that will keep you at least a half mile west of the hazard. What is the bearing \_\_\_\_? After half an hour you sight the light at 236 M. What, if anything, do you do?

## 15

About four miles from "The Harbor" FL G 1A and FL R 6 are in a line. Your nav. Assistant says you're right on course for home. You agree/disagree

What rudder orders do you give, how do you know when you're on a safe track?

## 16

You have taken your navigation assistant for another sail. You depart the Harbor heading 035 PSC, making 5.5 knots on an Easterly of 12 knots. At 0915 G "1B1" bears 320, at 0935 it bears 273 on your hand bearing compass. What is your position Lat N \_\_\_\_\_ Long W \_\_\_\_\_?

## 17

You pass R 2 south of Point Judith at 1000 on 036 PSC at 4.3 knots, 30 minutes later, you take a bearing off Pt. Judith light of 286 M. What is your estimated position? Lat N \_\_\_\_\_ Long W \_\_\_\_\_

**18**

You have been asked to ferry a Hunter 36 from The Harbor to West Falmouth Harbor (approx N41-37/W070-38). The wind is light and variable and you will have to motor the whole way. You plan to proceed at 3000 rpm and expect to make 6 knots SOG.

How much fuel will you have when you reach the Harbor? \_\_\_\_\_

What reserve would you set for a longer trip? \_\_\_\_\_

**TIDE AND CURRENT – 1 APRIL ON CHARTS PROVIDED (NOTE DST BEGINS IN MAR. ENDS IN NOV. ASSUME THESE CHARTS ARE VALID NOW)**

**19.** What is the time and height of the highest tide at San Francisco (Golden Gate) on 1 April  
\_\_\_\_\_ Is that standard or daylight time? (circle one).

**20** What is the time and height of the highest tide at the Oakland Pier (south Bay) Time \_\_\_\_  
Height \_\_\_\_

**21** In summer, you add/subtract an hour from standard time to get Daylight time?

**22** What is the time, speed and direction of maximum flood current at San Mateo Bridge on 1 May

**23** You are planning a trip through the West Passage of Narraganset Bay. Do you have sufficient clearance to pass under the Plum Beach Bridge? Y/N?

**RULES OF THE ROAD**

**24** According to your calculations, you are about a mile from the traffic separation scheme in the Santa Barbara Channel. You see a ship in the southbound lane with a forward masthead light. Astern you see three white lights over red-white-red. You take bearings and see you will pass astern. What else do you have to consider?

**25** A dredge is working the opening to the harbor. She displays two vertical diamonds to starboard and two black balls to port. Which is the safe side to pass? Port/Starboard?