MASTER OF YACHTS 200T OFFSHORE

PRE COURSE ASSESSMENT/STATEMENT*

Candidates Name ……Date of Exam……

Passport or ID Number……Nationality……

School Name…… School Number…….

I UNDERSTAND THAT IT IS IN MY INTEREST TO COMPLETE THIS ASSESSMENT WITHOUT CONSULTATION AND I CONFIRM THAT I ANSWERED THIS EXAM PAPER WITHOUT HELP FROM OTHER PEOPLE OR BOOKS, OR WITHOUT LOOKING AT THE ANSWERS.

I CONFIRM THAT I MEET THE EXERIENCE REQUIREMENTS (particularly at the helm) FOR THE IYT MOY OFFSHORE AS PUBLISHED ON THE IYT WEBSITE. (http://www.iytworld.com/professional.aspx?id=111)

I HAVE READ AND UNDERSTAND THE RULES GOVERNING THE FORMAT OF THE COURSE AND EXAMS AND THE REQUIREMENTS TO BE MET FOR SUCCESSFUL COMPLETION.

SIGNED …… PRINT NAME ……

DATE……

PRE-COURSE EVALUATION QUESTIONS - ANSWER ALL QUESTIONS

TIME ALLOWED: 2 hr 00 MARKS ACHIEVED: ……./100 …….. %
To have a reasonable chance of successfully completing the MOY Offshore, you should score in the range of 65% - 75% in this assessment.

DEFINE THE FOLLOWING TERMS OR ANSWER THE QUESTION.

1. **True North (1 mark):**

2. **Magnetic North (1 mark):**

3. **Tides (1 mark):**

4. **Currents (1 mark):**

5. **How is wind direction stated? (1 mark):**

6. **How are maritime wind speeds stated? (1 mark):**

7. **How is rate or speed of currents stated? (1 mark):**

8. **How is direction of current stated? (1 mark):**

9. **Compass Error (1 mark):**

10. **Ebb Stream (1 mark):**

11. **Flood Stream (1 mark):**

12. **Solar Day (1 mark):**

13. Mercator Projection Chart (1 mark):

14. Horizontal Datum (1 mark):

15. Chart Datum (1 mark):

16. Charted Depth (1 mark):

17. Nautical Mile (1 mark):

CALCULATE THE FOLLOWING:
Show calculations:

18. HW: 0207 9.1 Ft (3 marks)
LW: 0743 -0.6 Ft

Duration = _____ Range = _____

19. LW: 0925 0.2 Ft (3 marks)
HW: 1525 18.4 Ft

Duration= _____ Range= _____

20. HW: 2310 12.8 Ft (4 marks)
LW: 0506 - 0.9 Ft

Duration= _____ Range= _____

21. **Describe or sketch what initially occurs when a sail vessel with a right-hand screw (propeller) is engaged in reverse? (4 marks)**

22. **Describe or sketch what initially happens on a twin screw power driven vessel in gear forward, when the port engine stops running? (4 marks)**

23. **Describe or sketch what initially happens when from a dead stop, a twin screw with rudder amidships, engages the port engine in reverse? (4 marks)**

24. **Describe or sketch what happens when from a dead stop, a twin screw power vessel with helm (wheel) hard over to port engages its starboard engine in forward and its port engine in reverse? (4 marks)**

25. **Describe or sketch what happens initially from a dead stop on a power vessel with the helm (wheel) hard to starboard engages its starboard engine into forward and its port engine into reverse? (4 marks)**

MATCH THE FOLLOWING COLUMN 1 WITH THE CORRECT CORRESPONDING ANSWER (LETTER) IN COLUMN 2.

(1 mark each right answer)

	COLUMN 1	COLUMN 2
26.	**Longitude is? _____**	**A. 32**
27.	**1° of latitude = _____**	**B. 360**
28.	**Number of degrees in one point? _____**	**C. A measurement E or W of the Prime Meridian**
29.	**1 cable = _____**	**D. 1 nautical mile**
30.	**1° of longitude = _____**	**E. 60 nautical miles**
31.	**Latitude is? _____**	**F. Need to know latitude**
32.	**Number of points in a compass? _____**	**G. A measurement N or S of the Equator.**
33.	**A fathom = ____ Ft.**	**H. 11.25**
34.	**"In irons" means? _____**	**I. 9**
35.	**A SOLAS life raft is provisioned for __days.**	**J. 3**
		K. 4
		L. 0.1 nautical mile
		M. Head to wind
		N. 6

METEOROLOGY:

36. Define Isobars (1 mark)

37. What is Atmospheric Pressure? (1 mark)

38. What instrument is used to determine atmospheric pressure? (1 mark)

39. What are the units of measurement of atmospheric pressure? (1 mark)

40. Why is knowing the trend of atmospheric pressure important? (1 mark)

41. Name the 4 phases of the moon. (4 marks)

42. What effect does each of the above 4 phases have on tidal heights and ranges? (4 marks)

43. Veering wind. (1 mark)

44. Backing wind. (1 mark)

NAVIGATION:

45. Using the attached chartlet, determine the variation in degrees and minutes for the year 2008 (show calculation) (4 marks)

Using variation to the nearest whole degree for 2008 and compass deviation of 4° E, complete the following:

46. From you 09.00 position North of Block Island adjacent to G "1B1" – FL G 4 sec BELL, plot a course, using a course steered of 057° (C) and speed of 10 knots. What is your DR position at 09.30. Plot this and state the Lat and Long. (5 marks)

47. Assuming a Set/Direction of 100° and rate/drift of 3 kts plot your EP position at 09.30 and state the Lat and Long EP. (5 marks)

48. From your 09.30 EP position, proceed on a course of 161° (C) at 10 kts. Plot your DR position at 10.30 and state the Lat and Long. (5 marks)

49. At your 10.30 position your GPS indicates your position is Lat: 41° 10.0′ N and Long 071° 20.0′ W.
Calculate the set and drift of the current from 09.30 to 10.30. (5 marks)

50. Using the Set and Drift calculated above what would be your True Course to Steer (CTS) towards your 10.30 DR position, and what would be your estimated time of arrival (ETA)? (2 marks)

51. What is meant by Large Scale Chart and Small Scale Chart? (1 mark)

52. What information do UK Chart 5011 and USA Chart No1 contain? (1 mark)

The IYT MOY Offshore Course you are about to enroll in is **not** a novice or beginner's level AND NOT all the material you may be examined on for your Practical Final Exam is covered in the course. **Therefore, IYT *strongly* recommends outside pre-class study. Use any good reference such as "Chapman's Seamanship", "Reed's Nautical Companion", etc.**

There is presumed a certain level of "underpinning" knowledge. As an absolute minimum you MUST be able to:

KNOTS - Be able to tie the following in under 30 seconds:
Bowline, Reef, or Square Knot, Sheet or Becket Bend (single or double), Clove Hitch
Figure of eight knot, Rolling Hitch and Round turn and two half hitches

NAVIGATION - Be sure you can:
Understand and apply variation and deviation, Determine the lat/long of a charted object, Plot the lat/long of a position, Lay out a course between 2 positions, Determine the course between 2 positions, plot a 2 or 3 bearing fix, Understand tides and currents and how to apply these in navigation.

COLREGS - You should have a copy, or download at:
http://www.navcen.uscg.gov/mwv/navrules/navrules.htm

You should **know**: Lights, Day shapes, Signals, Meeting, crossing, and overtaking rules
General knowledge of the rules and the number of each rule

GENERAL SHIP'S KNOWLEDGE – knowledge and experience of:
Anchor types and uses, Mooring a vessel alongside, Steering a compass course and handling a vessel in a variety of conditions.

IYT MOY Offshore Course
The course is divided into 2 parts, Theory and Practical.

To progress to the practical you MUST pass all 4 of the theory papers, Navigation, Tides and Currents, Collision Regulations and Meteorology, during the first week. Candidates will be allowed one resit for each exam; the second failure will result in the candidate having to resit the theory course in its entirety. Resits may be taken on the Sunday of the theory week dependent upon numbers in the class.

Failure to pass all the theory exams will result in the removal of the candidate from the following practical week. The candidate must then reapply to sit the practical week once the theory has been successfully completed.

The practical part of the course is broken into 2 distinct parts, both of which must be passed at the same time:

1. Boat handling, practical skills and situational awareness, crew control and command skills.
2. Theoretical knowledge carried out in a one on one oral examination.

If a candidate does not pass both parts of this practical examination there will be a mandatory 3 month period before being allowed to reapply for a whole practical exam resit. The examiner may recommend more theoretical knowledge, experience, and/or seatime be acquired before re-assessment. The examiners word is final. Borderline cases may be referred to the IYT Training board for a decision.

* Note: The IYT MOY Offshore course is NOT a beginners course but is to review and refine existing knowledge and skills. If you have had trouble reaching the required score in the above test and/or have not had sufficient time vessel handling in varying conditions you should consider taking the MOY Coastal course and also gain further theoretical knowledge and practical experience.