

to inform the candidate that the latter examination will be cancelled in the event of failure to pass the sight tests.

II. The Lantern Test.

(8.) A special lantern and a mirror have been provided for this test. The lantern should be placed directly in front of the mirror, so that the front part of the lantern is exactly ten feet from the mirror. Care should be taken that the lantern is properly placed, that is to say, the lights reflected in the mirror must show clearly when viewed through the rectangular aperture on the left of the lantern. The Examiner should always satisfy himself that these conditions are fulfilled before commencing the examination.

(9.) *It is essential that a candidate should be kept in a room which is either completely or partially darkened for at least a quarter of an hour before he is required to undergo this test.*

(10.) Before the examination commences the Examiner must satisfy himself that the room in which it is conducted is so darkened as to exclude all daylight.

(11.) The lantern supplied for the examination is so constructed as to allow one large or two small lights to be visible, and is fitted with 12 glasses of three colours—red, white, and green. At the commencement of the examination the Examiner should show to the candidate a series of lights through the large aperture, and should require him to name the colours as they appear to him. Care should be taken in showing the white light to emphasize the fact that the light is not a pure white. If a candidate makes a mistake of calling this light "red," a proper red light should be shown immediately after, and the candidate's attention directed to the difference between the two.

After a series of lights through the large aperture has been shown, the Examiner should make a complete circuit with the two small apertures, requiring the candidate to name the colours of each set of two lights from left to right. To prevent any possibility of the order in which the lights are arranged from being learnt, the Examiner should at least twice in each circuit go back a varying number of colours. He should keep a record of the number of the glass with which he began the series and should take care to vary it from time to time.

A record of any mistakes made with either the large aperture or the two smaller apertures should be kept on Form Exn. 17c in accordance with the instructions thereon.

(12.) As the lantern itself forms a test for colour ignorance, the old colour ignorance test becomes unnecessary and should be discontinued.

III. Success or Failure.

(13.) If a candidate with either the large aperture or the two smaller apertures of the lantern mistakes red for green or green for red, he should be considered to have "failed" in colour vision.

(14.) If a candidate makes no mistakes in the wool test, and if the only mistakes made by him with the lantern is to call the white light "red," and if after his attention has been specially directed to the difference between the two he makes no further mistake of this nature, he should be considered to have passed in colour vision.

(15.) If a candidate makes any other mistake with the lantern—*i.e.*, if he calls white "red" repeatedly or red "white" at all, or confuses green and white, or if he makes any mistake whatever in the wool test, his case should be reported to the Principal Examiner of Masters and Mates, and he should be told that the decision as to whether any further examination is necessary or not will be communicated to him in due course. Pending the receipt of the Principal Examiner's instructions such a candidate should only be allowed to proceed with the remainder of the examination for a certificate of competency on the express understanding that the latter examination will be cancelled in the event of failure in the sight tests.

IV. Further Examination and Appeals.

(16.) If in the cases covered by the preceding paragraph the Principal Examiner decides that a further examination is necessary, arrangements will be made for a special examination to be held, and the second-class travelling-expenses necessarily incurred by a candidate in attending such an examination will be paid by the Marine Department, together with a subsistence allowance at a rate which will be notified to the candidate, but which will not in any circumstances exceed 10s. for each day necessarily occupied in attending the examination. In these cases the above expenses will be paid whatever may be the result of the final examination.

(17.) If, however, on the report of the local Examiner the Principal Examiner decides that the nature of the mistakes made shows conclusively that a candidate is so colour blind as to be unfit to hold a certificate, the candidate shall be considered to have failed.

In such cases, as well as in the cases covered by paragraph 13, the Marine Department will be prepared to allow a candidate who is dissatisfied with this decision to appeal for a special examination, but the Marine Department will not pay the travelling-expenses of any such candidate unless he is reported by the special Examiners conducting the appeal examination to have passed.

Appendix G is hereby revoked and the following substituted in lieu thereof:—

APPENDIX G.

EXAMINATION IN CHART.

For all Grades where the Chart is used in Examination for Foreign-going Certificates.

1. Using deviation [card] [curve]* No. , find the courses† to steer by compass from to ; also the distance on each course.

NOTE.—Alter course when and again when .

Answer.—1st Course . 1st Distance .
2nd " . 2nd " .
3rd " . 3rd " .
1st Deviation .
2nd " .
3rd " .

2. With the ship's head on the above-named compass course bore by compass and bore by the same compass, find the ship's position ; also the set and drift experienced since the course was set, ship steaming knots per hour and taking hours to reach this position.

Answer.—Latitude : Longitude :
Set : Drift :

3. With the ship's head on the above-named compass course bore by compass , and after continuing on the same course (hours) (minutes), it bore , find the ship's position, and her distance from , making due allowance for a (current) (tide) which set at the rate of knots per hour, ship steaming knots per hour.

Answer.—Latitude : Longitude :
Distance :

* A candidate for an ordinary master's certificate is expected to use either a card of deviations, or a curve of deviations on a Napier's diagram, whichever the Examiner may put before him.
† These problems will be varied in the setting so as to include one, two, three, or more courses, and the remaining problems will also be varied so as to include all practical conditions.

*For all Grades where the Chart is used in Examination for Home-trade Ship Certificates, with the Exception mentioned in Note below.**

[The candidate will be required to work out the following questions on either a "true" or "magnetic" chart,† whichever may be handed to him by the Examiner; and also determine whether the chart is a "true" or "magnetic" one, and whether it is for the Northern or Southern and Eastern or Western Hemisphere.]

1. Using deviation [card] [curve]‡ No. find the course to steer by compass from to ; also the distance.

Answer.—Magnetic course :
Compass course :
Distance :
Variation :
Deviation :

2. With the ship's head on the above-named compass course, a [point] [lighthouse] bore by compass and bore by the same compass. Find the ship's position.

Answer.—Latitude :
Longitude :

3. With the ship's head as above, a [point] [lighthouse] bore by compass , and after continuing on the same course miles it [or another point] bore . Find the position of the ship and her distance from at the time of taking the second bearing.

Answer.—Latitude :
Longitude :
Distance :

* In examination for master of fishing-boats and cargo-vessels, and small sailing-vessels carrying passengers in restricted limits only, "magnetic" charts are used.
† The terms "true" and "magnetic" are used for the sake of brevity and convenience to indicate charts that have compasses delineated upon them showing the "true" or "magnetic" points of the compass respectively.

For all Grades where the Chart is used.

4. What do you understand the small numbers to indicate that you see placed about the chart, and at what time of tide ?