(b.) To work a day's work complete, correcting the courses for leeway, deviation, and variation.

(c.) To find the latitude by the meridian altitude of the sun.

(d.) To find the true courses and distance from one given position to another by Mercator's method ; also the compass course, the variation and deviation being given.

(e.) To find the time and height of high water at a given port.

(f.) To find the true amplitude of the sun, and the error of the compass therefrom ; also the deviation, the variation being given.

(g.) To find the longitude by chronometer from the altitude of the sun, computing the daily rate of chronometer from errors observed when required.

(h.) To find the true azimuth of the sun by Time Azimuth Tables ; the error of the compass ; also the deviation, the variation being given.

(i.) To find from tables in the " New Zealand Nautical Almanac," or other works, the time at which a given star will be on the observer's meridian above or below the Pole, as required in question.

(j.) To compute the approximate meridian altitude of a star, for setting the sextant.

(k.) To find the latitude from the meridian altitude of a star.

(l.) To find the approximate altitudes and bearings of stars within the limits of the best Star Reduction and Azimuth Tables which would be suitable for observations to quickly obtain position of ship.

(m.) To find the position of ship by two stars at twilight, or by one star combined with the bearing of a distant mountain, headland, or sounding, by the aid of the best Star Reduction and Azimuth Tables, or any other methods which candidates may prefer.

(n.) Examination in chart and correction of soundings as required for home-trade master.

VOLUNTARY EXAMINATION IN POSITION-FINDING BY TWO STARS.

88. This examination is provided for the purpose of giving masters and mates who are possessed of certificates of competency an opportunity of undergoing a voluntary examination in their knowledge of this most valuable problem. The examination is open to any person who holds a certificate of any grade in the foreign or home trade, or as master of a pleasure-yacht.

Candidates should fill up the form of application (Form Exn. 2) at a mercantile marine office, pay the fee of 5s., and deposit their certificates with the Superintendent.

Candidates may be examined at any port where ordinary examinations are held on the usual examination-days.

If the candidate fails to pass his certificate will be at once returned to him.

89. If the candidate passes, the fact, with the date and place of passing, will be recorded upon his certificate of competency.

The two problems for this examination are as follows :—

(a.) To find the approximate altitudes (within $\frac{1}{2}$°) and bearing (within 1°) of stars within the limits of the best Altitude, Hour-angle, Reduction, and Azimuth Tables which would be suitable for observation to quickly obtain position of ship.

(b.) To find the position of ship by two stars at twilight, or by one star combined with the bearing of a distant mountain, headland, or sounding, by the aid of the best Inspection Tables or by any other methods which candidate may prefer.

This problem may be worked either with or without the aid of a plane Sumner chart.

CERTIFICATES OF EFFICIENCY IN NAVIGATION AND SEAMANSHIP FOR MEMBERS OF THE ROYAL NAVAL VOLUNTEER RESERVE.

90. Officers belonging to the Royal Naval Volunteer Reserve may be examined for either the ordinary or extra certificate of efficiency in navigation and seamanship.

Candidates for commissions in the Royal Naval Volunteer Reserve may also be examined for the ordinary certificate of efficiency, but not for the extra certificate.