

Examiners to become familiar with the organization and methods of the examinations, and the Board's Principal Examiner of Masters and Mates would be glad to explain the system of the examinations, to discuss questions of difficulty, and to show the actual conduct of examinations at ports in the United Kingdom.

5. I should be glad to learn the views of your Ministers on this proposal.
I have, &c.,

A. BONAR LAW.

Governor His Excellency the Right Hon. the Earl of Liverpool,
G.C.M.G., M.V.O., &c.

Enclosures.

(Circular 1574.)

EXAMINATION OF MASTERS AND MATES.

Instructions to Examiners and Notice to Candidates.

THE Board of Trade have decided to introduce certain changes into the examination of candidates for certificates of competency as master or mate. References are to the current (1913) edition of the Regulations relating to the Examination of Masters and Mates (Exn. 1).

I. The following changes will take effect on the 1st October, 1916:—

1. *Signalling* (Paragraphs 32 (m), 59, 65 (r); Appendix E).—Candidates for the extra-master's certificate and for the voluntary examination in signalling will be required to attain a minimum speed of twelve words a minute in semaphore and ten words a minute in Morse flashing; the minimum speed for Morse flag-waving remaining at six words a minute.

Candidates for other certificates will only be required, as announced in handbill 367, to attain a minimum speed of eight words a minute in semaphore and five words a minute in Morse flashing and flag-waving.

2. *Chart Work* (Paragraphs 32 (l), 59; Appendix H).—Candidates for certificates of any grade will be required to work satisfactorily all the chart problems indicated in Appendix H.

3. *Definitions* (Paragraphs 32 (b), 155; Appendix D).—The separate paper on definitions (Appendix D) will be discontinued, and, instead, candidates will be required to give a figure and explanation for each problem worked.

4. *Law of Storms* (Paragraph 36 (m); Appendix I).—The paper on the law of storms in the examination for certificates as first mate or master will be replaced by a paper on meteorology.

II. The following changes will take effect on the 1st January, 1918:—

5. *Navigation* (Paragraphs 32, 36, 39, 59, 62, 65, 151, 152, 153).—The whole of the examination in navigation will be brought under the marks system. A specified time will be allotted for each paper (see paragraph 12 of this notice), and papers will not be returned to candidates for correction. Candidates will be required to obtain 85 per cent. of the total marks in order to pass.

6. *Second Mate* (Paragraph 32).—Candidates for certificates as second mate will be required to answer questions on plane trigonometry and elementary *viva voce* questions on the main parts of a ship's construction, and, in place of the present dictation paper, to write a short essay on some simple subject.

7. *First Mate* (Paragraph 36).—Candidates for certificates as first or only mate will be required, in addition to the work for the second mate's certificate, to answer questions on right-angled spherical trigonometry and more advanced questions on the main parts of a ship's construction and their general use.

8. *Master* (Paragraph 39; Appendix J).—Candidates for certificates as master (foreign-going) will be required, in addition to the work for the first mate's certificate, to answer questions on ship-construction and naval architecture and a few elementary questions on stability (for standard text-book see Appendix R), and to write a short essay on some suitable subject. The questions on the deviation of the compass (Appendix J) will be remodelled.

9. *Extra Master* (Paragraph 65; Appendix K).—Candidates for certificates as extra master will be required, in addition to the work for the master's certificate, to answer more advanced questions on naval architecture, including ship-construction and stability; questions on magnetism as relating to the compass; and a paper on general knowledge, including shipping business, imports and exports, astronomy and general elementary science (except chemistry).

10. *Home-trade Mate* (Paragraph 59; Appendix H).—The examination will include all the chart work and the use and adjustments of the sextant.

11. *Home-trade Master* (Paragraph 62).—Candidates will be required to find compass corrections by amplitude and time azimuth of the sun.

12. *Time allowed* (Paragraphs 169 to 182).—The time allowed for the written and worked portions of the examinations for foreign-going and home-trade certificates will be arranged as follows:—

A regular luncheon interval will be given each day between 1 p.m. and 2 p.m., the *viva voce* and practical parts of the examinations being taken at such times as may be convenient.

Second mate: Paper on navigation and nautical astronomy, 3 hours; nautical astronomy and trigonometry, 2 hours; chart work, 3 hours; essay, 1 hour.

First or only mate: Paper on navigation and nautical astronomy, 3 hours; nautical astronomy and trigonometry, 2 hours; chart work, 3 hours; sumner problem and meteorology paper, 2 hours.