



MARINE DEPARTMENT
GOVERNMENT OF THE HONG KONG
SPECIAL ADMINISTRATIVE REGION

Certificates of Competency and Licences for Seagoing Deck Officers' Determinations

(2022 Edition)

Made under Sections 8 and 10 of the
Merchant Shipping (Seafarers)(Certification of Officers) Regulation

MERCHANT SHIPPING (SEAFARERS) ORDINANCE
(CHAPTER 478)

**Certificates of Competency and Licences
for Seagoing Deck Officers' Determinations**

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Merchant Shipping (Seafarers)(Certification of Officers) Regulation

**Marine Department
The Hong Kong Special Administrative Region**

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CHAPTER 1

COMMENCEMENT, INTERPRETATION & GENERAL REQUIREMENTS

1.1 Commencement

1.1.1 This Certificates of Competency and Licences for Deck Officers' Determinations (the Determinations) is made by the Seafarers' Authority under powers granted by the Merchant Shipping (Seafarers) (Certification of Officers) Regulation and is the seventh edition that shall be effected on 28 February 2022.

1.1.2 The Determinations supersedes all previously published Rules and Determinations regarding certification and licensing of deck officers for sea-going ships.

1.2 Interpretation

1.2.1 In the Determinations, unless the context otherwise requires:

“approved” means approved or recognized by the Director of Marine;

“Authority” means the Seafarers' Authority established by section 4(1) of the Merchant Shipping (Seafarers) Ordinance, Cap.478. For the purposes of the Determinations, Director of Marine is the Authority;

“certificate of competency” means a certificate of competency issued by the Director under the Merchant Shipping (Seafarers)(Certification of Officers) Regulation;

“certificate of proficiency” means a certificate, other than a certificate of competency or a Licence, issued to a seafarer, stating that the relevant requirements of training, competencies or seagoing service under the STCW Convention have been met;

“chief mate” means the officer next in rank to the master and upon whom the command of the ship will fall in event of the incapacity of the master;

“deck officer” means an officer qualified in accordance with the provisions of the chapter II of the STCW Convention;

“Director” means the Director of Marine;

“examiner” means a person appointed by the Director to be an Examiner of Masters and Deck Officers;

“fishing vessel” means a vessel for the time being employed in sea fishing or a Government fishery research vessel, but does not include a vessel used otherwise than for commercial purposes;

“Licence” means an endorsement in the form of a separate document entitled “Licence” issued by the Marine Department in accordance with Part V of the Merchant Shipping (Seafarers) (Certification of Officers) Regulation to an officer who holds an appropriate certificate issued by or under the authority of another Party to the STCW Convention;

“**Master**” means the person having command of a ship;

“**Month**” means a calendar month or 30 days made up of periods of less than one month;

“**pleasure craft**” means a vessel used primarily for sport and recreation purposes;

“**seagoing service**” means service on board a seagoing ship relevant to the issue or revalidation of a certificate or other qualification and seagoing service shall not be done on fishing vessels, pleasure craft or ships not propelled by mechanical means;

“**seagoing ship**” means a ship other than those navigate exclusively in inland waters or in waters within, or closely adjacent to, sheltered waters or areas where port regulations apply;

“**the STCW Code**” means the Seafarers' Training, Certification and Watchkeeping Code adopted by the 2010 Manila Conference of Parties to the STCW Convention;

“**STCW Convention**” means the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978 as amended;

“**STCW Regulation**” means a Regulation contained in Attachment 1 to the Final Act of the 2010 Manila Conference of Parties to the STCW Convention.

1.3 **General Requirements**

1.3.1 The subsequent chapters of the Determinations set out the training and qualification requirements for deck officers and the conditions to be satisfied by any person to qualify for a certificate of competency as a deck officer, or an extension of the validity/revalidation of such a certificate, or an endorsement to such a certificate, the manner in which the attainment of such standards or the satisfaction of such conditions is to be established, the procedure for the conduct of examinations, and the subjects and syllabuses for those examinations.

1.3.2 The officers manning the stations of Master, Chief Mate, Second Mate (Officer in charge of a Navigational Watch) and any other person assigned specific duties and responsibilities or having an immediate responsibility for the cargo or other cargo-related operations in the following types of vessel:

- (a) oil tanker;
- (b) chemical tanker;
- (c) liquefied gas tanker.

shall hold their certificates of competency that bear endorsements to the effect that the holders have satisfied the Director in regard to the requirements for training and service set out in Certificates of Proficiency or Endorsements for Oil, Chemical and Liquefied Gas Tanker Cargo Operations Determinations.

1.3.3 Any candidate who considers himself/herself to be aggrieved by any decision of the examiner may appeal to the Director within thirty (30) days of being informed of such decision.

1.3.4 The Director may, at his discretion, permit exemption from any or all of the provisions of the Determinations.

CHAPTER 2

GENERAL PROVISIONS

2.1 **Classes of Certificate and Validity**

2.1.1 The classes of certificates of competency are as follows:

Seagoing

Certificate of Competency (Deck Officer) Class 1 (Master Mariner)

Certificate of Competency (Deck Officer) Class 2

Certificate of Competency (Deck Officer) Class 3

2.1.2 Seagoing classes of certificates of competency are valid for unlimited service area.

2.1.3 All seagoing classes of certificates are valid for a period of not more than five (5) years and fall due for revalidation on the expiry date shown on the certificate.

2.1.4 In order to revalidate a certificate, the holder must show evidence of meeting the conditions for revalidation which are set out in Chapter 10.

2.2 **Proof of Nationality**

2.2.1 All candidates for examination for a certificate of competency will be required to produce proof of name, nationality and date of birth.

2.3 **Medical Fitness Certificate**

2.3.1 All candidates for any certificate of competency will be required to produce a valid medical fitness certificate issued by an approved medical practitioner as detailed in section 8 of Merchant Shipping (Seafarers) (Medical Examination) Regulation.

2.4 **Date and Place of Examinations**

2.4.1 The dates upon which written examinations are to be held in the following year will be published annually in a Gazette Notice issued by the Director.

2.4.2 Candidates for examination will be informed, at the time of making application, of the place at which the examination will be held.

2.4.3 Candidates who are making application for any examination should follow the procedure set out in paragraph 2.5, ensuring that their application is lodged at least thirty (30) days prior to the commencement date of the examination upon which they wish to be examined. The time and date of the examination will then be advised.

2.5 **Application**

2.5.1 Intending candidates for either a part, or for the whole, of any certificate of competency examination must complete an application form (MD 802) which may be obtained from the Marine Department, Seagoing Examination and Mercantile Marine Office, or by post from:

Marine Department
Seagoing Examination and Mercantile Marine Office
3/F Harbour Building
38 Pier Road
Central
Hong Kong

The application form could also be downloaded from the Marine Department's website (<https://www.mardep.gov.hk/hk/forms/home.html#seagoing>).

2.5.2 Applicants should return the completed application form to the Seagoing Examination and Mercantile Marine Office at least thirty (30) days prior to the commencement date of examination upon which the applicants intend to sit for the examination, together with:

- (a) the examination fee;
- (b) two passport type photographs (50mm x 40mm);
- (c) Watchkeeping certificate/sea service testimonials;
- (d) Seafarers' Employment Registration Book or Certificates of Discharge;
- (e) proof of nationality, name and date of birth;
- (f) valid medical fitness certificate;
- (g) where appropriate –
 - (i) existing certificate of competency;
 - (ii) GMDSS General Operator Certificate;
 - (iii) documentary evidence on initial education and training;
 - (iv) subsidiary course certificates;
 - (v) training record books.

2.5.3 Candidates who have made a previous attempt at the same examination, when making application for re-examination, must also submit their copy of the record of results, issued by the examiner following their previous attempt.

2.5.4 It is important that the correct procedure for application is followed as Seafarers' Employment Registration Book and watchkeeping certificate/sea service testimonials should be submitted for verification which can take time, and in the absence of such verification the candidate cannot be accepted for examination.

2.5.5 Applications from candidates abroad may be made by post to the Seagoing Examination and Mercantile Marine Office, accompanied by the prescribed examination fee and copies of the relevant supporting documents. Original documents should not be sent through the post in such cases, but should be presented to the examiner on the applicant's next return to Hong Kong prior to the date of examination.

Notification by the examiner of acceptance for the examination will be given as soon as possible after receipt of the application.

- 2.5.6 Candidates who fail in all, or in a part, of an examination may attend for the next scheduled examination for the relevant certificate provided that accommodation is available in the examination hall, even if this means that they are unable to give the full thirty (30) days' notice required by paragraph 2.5.2. In order to utilize of this facility candidates must submit written application to retake the examination, or part of examination, together with the appropriate fee, immediately upon receiving notification of the examination results.

2.6 **Enquiries**

- 2.6.1 Candidates may make enquiries about examinations and when doing so, should ensure that the point on which information is sought is clearly stated. Enquiries should be addressed to:

The Examiner of Masters and Mates
Marine Department
3/F Harbour Building
38 Pier Road
Central
Hong Kong

Tel. No. : (852) 2852 4362
Fax No. : (852) 2541 6754
E-mail : sssem@mardep.gov.hk

- 2.6.2 Candidates writing to request a provisional estimate of their seagoing service should include a detailed summary of their seagoing service with the enquiry but should not include original documents.

2.7 **Particulars of Seagoing Service**

- 2.7.1 A candidate's eligibility for examination will depend, amongst other factors, on the amount of seagoing service performed and upon the seagoing ranks in which the candidate has served. It is, therefore, imperative that the particulars which candidates enter on the application form are accurately stated.

- 2.7.2 The amount of seagoing service set down in the Determinations for each class of certificate is the **absolute minimum** that can be accepted. Unless candidates can prove the full amount they will not be admitted to the examination.

2.8 **Testimonials and Watchkeeping Certificates**

- 2.8.1 Testimonials as to character, sobriety, experience and ability on board ship, and good conduct for the full period of seagoing service covered by the application will be required of all candidates. Such testimonials must, except in special cases, be signed by the Master(s) of the vessel(s) in which the candidate has served.

- 2.8.2 Candidates for those certificates of competency for which service as a watchkeeping officer is a requirement must also produce Certificates of Watchkeeping Service

signed by the Master(s) of the vessel(s) in which they have served. A specimen form of certificate, recommended for the purpose, is shown in Appendix I and Form 2. Testimonials and Certificates of Watchkeeping Service will be returned to candidates when the examination is completed..

2.9 **Use of Information**

2.9.1 Information required by the application form will be used by Marine Department for the process of application for examination and issue of certificate. This information may be divulged to other departments and agencies authorised to process the information for the mentioned purposes. Limited personal data of successful applicant may be used via the Marine Department's website for verification of the issued certificate of competency by any third parties.

2.9.2 The supply of information is obligatory. A candidate should ensure that all the information filled in the application form is accurate. Failure to do so may, besides subject to paragraph 2.10, result in an unsuccessful application.

2.9.3 For making correction and access to personal data after submission of application form, a candidate may contact the following officer:

Officer-in-charge
Marine Department
Seagoing Examination and Mercantile Marine Office
3/F Harbour Building
38 Pier Road
Central
Hong Kong

2.10 **Fraud or Misrepresentation**

2.10.1 Candidates are reminded that the Merchant Shipping (Seafarers)(Certification of Officers) Regulation provides that any person who, in connection with an application for the issue of a certificate of competency, or in connection with the endorsement to, or extension of validity of, a certificate of competency:

- (a) makes a false pretence; or
- (b) supplies false information,

knowing it to be false, or not believing it to be true, commits an offence and is liable, amongst other things, to a fine and to imprisonment.

2.11 **Attempted Bribery**

2.11.1 Any candidate who offers an advantage to any officer of the Marine Department shall be guilty of an offence under the Prevention of Bribery Ordinance and shall be liable on summary conviction to a fine and to imprisonment. Such a candidate will not be re-examined for such a period as may be decided by the Director.

2.12 **Unsatisfactory Conduct**

2.12.1 Candidates who have neglected to join their vessels after signing crew agreements, or who have left their vessels after joining, other than upon discharge, or who have committed misconduct on board, will be required to produce satisfactory proof of two (2) years subsequent service at sea with good conduct unless the Director, after investigation, should see fit to reduce this period.

2.13 **Deafness and other Physical or Mental Handicaps**

2.13.1 If, in the course of any examination, the examiner finds that a candidate is afflicted with deafness, an impediment in speech, or with some other physical or mental handicap which he considers sufficient to render the candidate incapable of discharging adequately the ordinary seagoing duties of the holder of a certificate of competency, he will not allow the candidate to complete the examination and the candidate will be refunded of the examination fee.

2.13.2 If such a candidate subsequently produces a medical fitness certificate to the effect that the particular handicap has been overcome or has improved or that the candidate's condition is now normal, the Director will reconsider the candidate for examination.

2.14 **Knowledge of English and Languages for Examinations**

2.14.1 All candidates for seagoing classes of certificates of competency must demonstrate to the satisfaction of the examiner that they can master English sufficiently well to perform the duties required of them on board a Hong Kong registered ship.

2.14.2 All the written and oral/practical examinations are conducted in English. Candidates for written examinations will be expected to demonstrate a reasonable standard of grammar, spelling, and composition in their answers.

2.15 **Quality Standards**

2.15.1 The education and training courses which a candidate attends to satisfy the training requirements for the issue of a certificate of competency shall generally follow a quality standards system or an alternative system acceptable to the Director.

2.16 **Issue of Certificates**

2.16.1 Candidates who are successful in all parts of an examination, and who meet all the requirements for the issue of a certificate of competency of the class applied for, will be issued with a certificate of competency. When the certificate is ready, the candidate will be notified for collection at our office with address stated in paragraph 2.5.1 unless the candidate wishes to make other arrangements.

2.16.2 A candidate who has passed all parts of the examination but who has not yet obtained the subsidiary qualifications necessary to become eligible for the issue of a certificate will be issued with a record of results form. Upon production of this form and proof that the requisite subsidiary qualifications have been obtained, the candidate will be issued with a certificate of competency in the normal manner.

2.16.3 All other candidates for the examination will receive a record of results which should be retained and produced at any subsequent examinations.

2.16.4 To avoid unnecessary delays in the issue of certificates, it is important that candidates should inform the officer-in-charge as stated in paragraph 2.9.3 promptly of any change to the address and contact details given on the application form.

2.17 **Insufficient Seagoing Service**

2.17.1 If, after a candidate has passed the examination, it is discovered that his seagoing service is insufficient to entitle him to receive a certificate of competency of the class for which he has been examined, he will not be issued with such a certificate. If, however, the Director is satisfied that the error in the calculation of seagoing service did not occur through any fault or misrepresentation on the part of the candidate, the appropriate certificate will be granted when he has made up the deficiency in seagoing service.

2.18 **Fees**

2.18.1 Applicants for examination will be required to pay the appropriate examination fees before any steps are taken to verify their eligibility for examination. Candidates who are found to be ineligible will have their fees returned.

2.18.2 The fee paid for examination for a certificate of competency is not refundable in the event of failure to pass any part of the examination. A candidate who fails to show up in any part of any examination at the appointed time may be regarded as having failed by default in that part of the examination and the examination fee will be forfeited unless the candidate produces reasonable proof that failure to attend was unavoidable.

2.18.3 Details of the current scale of fees may be obtained from the Schedule of the Merchant Shipping (Seafarers)(Fees) Regulation, Cap. 478AB.
(<https://www.elegislation.gov.hk/hk/cap478AB>)

2.18.4 A candidate who, due to circumstances beyond his control, has to postpone an examination for which he has already made application, may do so for one opportunity only in a maximum period of one (1) year beyond the date of the examination applied for. A candidate wishing to postpone examination should apply in writing not less than three (3) days in advance of the examination. When he subsequently applies to sit the postponed examination, he will be required to pay any increase in fee which may have come into effect since his original application.

2.18.5 If the candidate wishes to be examined at a date one (1) year after the date of the previously arranged examination, his paid examination fee will be forfeited and he will be required to resubmit his application with fee as if it were a new application.

2.19 **Issue of Replacement Certificate**

2.19.1 If a certificate of competency is lost, the holder may apply to the Seagoing Examination and Mercantile Marine Office for a replacement certificate. A fee will be charged for the replacement certificate unless the holder can show that the loss was as a result of shipwreck or ship fire. An applicant for a replacement certificate will be required to make a declaration to the examiner regarding the circumstances in which the certificate was lost.

CHAPTER 3

APPROVED SEAGOING SERVICE

3.1 **General**

- 3.1.1 This chapter specifies provisions relating to qualifying seagoing service.
- 3.1.2 Except where otherwise specified, the qualifying seagoing service required for any certificate of competency is the service performed in ships which proceed to sea and which are actively engaged in commercial trading. The Director may, at his discretion, accept a proportion of non-trading service in lieu of some service in trading vessels but, in general, non-trading service not specifically provided for in the Determinations will not be accepted.
- 3.1.3 Approved seagoing service is defined as time spent on board ship, relevant to the issue of the certificate or other qualification being applied for. Seagoing service must be in the deck department and will be reckoned from the date of engagement to the date of discharge. Subject to verification, as and when necessary, certificates of discharge will be accepted as proof of sea service. Where watchkeeping service is also a requirement, candidates must produce Certificates of Watchkeeping Service in addition to proof of seagoing service.
- 3.1.4 Seagoing service may be performed on vessels of any flag. Proof of seagoing service for candidates serving on Hong Kong registered ships can be verified by the Mercantile Marine Office of Marine Department. Seagoing service on other ships must be confirmed by the Master(s) of the ship(s) concerned, or by the Consul or other recognized authority of the flag State. However, such confirmation will not necessarily be deemed sufficient.
- 3.1.5 Calculations of voyage length for the purpose of establishing seagoing service should be made in calendar months and days. When it happens that a candidate has signed off and signed on again on the same day, that day may only be counted once. To calculate total approved seagoing service, the length of each voyage should be added together in months and days. The total of days should then be divided by thirty (30) to give months, and residual days. The months should then be added as the total months.

3.2 **Non-Trading Service and Local Service in Hong Kong**

- 3.2.1 Service in marine craft belonging to armed forces which regularly proceed to sea may be counted in full towards the requisite service for any Certificate of Competency (Deck Officer) Class 3 provided that adequate evidence of sea going service is produced. Candidates claiming such service must, in addition, have served for at least twelve (12) months in trading vessels.
- 3.2.2 Service in cable ships, sail training vessels, fishery cruisers, research vessels, salvage vessels, navigational aids tenders, oil rig supply vessels, oil rig standby vessels, cruise-to-nowhere passenger ships, Hong Kong local vessels with ad-hoc voyages to nearby ports, and other vessels engaged in similar activities will be counted in full only if the time actually spent at sea constitutes at least two thirds of the total time spent on board. If the actual time spent at sea falls below this proportion, the approved seagoing service

shall then be calculated as 1.5 times the period actually spent at sea. Candidates claiming this type of service will be required to produce a statement, or certificate, from the owners of the vessel(s) showing the amount of time actually spent at sea.

- 3.2.3 Service in storage tankers or laid up vessels, in river trade passenger vessels which are registered vessels, and in hovercraft, hydrofoils, and other craft of novel construction which proceed beyond the limits of any harbour will be accepted in full up to a maximum amount of three (3) months when applying for seagoing classes of certificates of competency. However this three (3) months services should not be counted against the final twelve (12) months seagoing service as required in paragraph 5.2.1 (c).

3.3 **Remission of Seagoing Service**

- 3.3.1 Candidates for seagoing classes of certificate of competency only may have the required periods of seagoing service reduced by remissions granted in respect of attendance at approved courses of training and in respect of service in certain ranks as detailed in the following paragraphs.

- 3.3.2 Remission may be granted under more than one heading but in no case will the total period of remission exceed the maximum allowances stated below:

Class 3	maximum remission 24 months
Class 2	no remission
Class 1	maximum remission 12 months

- 3.3.3 Candidates for a Certificate of Competency (Deck Officer) Class 1 may be granted remission in respect of periods of approved seagoing service as Chief Mate as described in paragraph 3.3.4, subject to the provision that the total remission does not exceed that specified in paragraph 3.3.2.

- 3.3.4 Candidates for a Certificate of Competency (Deck Officer) Class 1 may be granted maximum remission of twelve (12) months seagoing service if the candidates have served as Chief Mate on seagoing ships while holding a Certificates of Competency (Deck Officer) Class 2 for not less than twelve (12) months of seagoing service.

- 3.3.5 No remission will be granted from the period of six (6) months which candidates for a Certificate of Competency (Deck Officer) Class 3 are required to spend on duties associated with bridge watchkeeping during the final twelve (12) months of seagoing service for that certificate.

- 3.3.6 Candidates for a Certificate of Competency (Deck Officer) Class 3 who have satisfactorily completed the approved Higher Diploma Courses in Maritime Studies at the Vocational Training Council and been successful in the final examination may be granted with eighteen (18) months of remissions from the seagoing service required for the certificate.

- 3.3.7 Candidates for a Certificate of Competency (Deck Officer) Class 3 who hold a Bachelor Degree in International Shipping and Transport Logistics, or a Higher Diploma in International Transport Logistics granted by the Hong Kong Polytechnic University will be granted six (6) months remission from the seagoing service requirement for the certificate. If appropriate supplementary electives are completed

successfully during the course of his/her study, further remission may be granted subject to the limit set out in paragraph 3.3.2.

.1 Candidates who have successfully completed the Higher Diploma in International Transport Logistics (HD-ITL) without any fully-relevant elective subject, but has satisfactorily completed all the compulsory subjects, will be granted six (6) months remission of seagoing service from the requirement for a Class 3 certificate. Also, candidates will be further granted seagoing service remission as for number of fully-relevant elective subject(s) as in the following:-

- one elective subject for 6 months;
- two elective subjects for 12 months;
- three elective subjects for 14 months;
- four elective subjects for 16 months;
- five elective subjects for 18 months.

.2 Candidates who have successfully completed the BBA (Hons) in International Shipping and Transport Logistics (BBA-ITSL) without any fully-relevant elective subject, they will be granted either (i) 12 months seagoing service remission after completed all the compulsory subjects; or (ii) 6 months seagoing service remission if completed the only designated subject. Also, candidates will be further granted seagoing service remission as for number of fully-relevant elective subject(s) as in the following:-

- one elective subject for 6 months;
- two elective subjects for 8 months;
- three elective subjects for further 10 months;
- four elective subjects for further 12 months.

.3 The seagoing service remission to be granted for HD-ITL and BBA-ITSL are also subject to the following conditions:

- (a) Before joining ship, the graduates shall be provided with a reading list to supplement any outstanding subject areas which falls short or below the requirements stipulated in the STCW Convention, as amended.
- (b) Familiarisation arrangements and seamanship training are to be made with the Maritime Services Training Institute (MSTI) of the Vocational Training Council (VTC) or other approved training institutes in the form of short courses.
- (c) The onboard training is to be under the supervision of a dedicated shipboard training officer and the training is subject to the continuous monitoring of HKMD.

3.3.8 Candidates for a Certificate of Competency (Deck Officer) Class 3 who have previously obtained a Certificate of Attendance issued by the Seamen's Training Centre and have completed the 46 week pre-sea Deck Cadet Officer Course are granted 23 weeks of remission from the approved seagoing service requirements for that certificate.

3.3.9 When any candidate has attended and been successful in course end examination of any subjects in the Upgrading Course for Certificates of Competency (CoC) Class 3 (Deck), the further seagoing service remissions would also be granted, i.e. one month for one MSTI Class 3 (Deck) Upgrading Course subject.

CHAPTER 4

PARTICULARS OF ADDITIONAL AND SUBSIDIARY QUALIFICATIONS

4.1 **Medical Fitness and Eyesight Standards**

4.1.1 For any Certificate of Competency, candidates must meet the medical fitness and eyesight standards as required by the Merchant Shipping (Seafarers) (Medical Certification) Regulations.

4.1.2 The seafarer medical examination includes a sight test for both colour vision and visual acuity. Failure to meet the statutory requirements will mean that an unrestricted medical certificate cannot be issued. In view of the importance of meeting the eyesight Standards, anyone considering a sea-going career is strongly advised to have a full sight test by an optometrist before beginning training to ensure that they meet the Standards. It is possible that certain latent defects of eyesight which may cause that person's standard of vision to fall as he grows older. These defects can only be discovered by a more searching examination. It is therefore very desirable that anyone embarking on a career at sea as a deck officer should first undergo a thorough examination of his eyesight by an ophthalmologist.

4.1.3 Proof of medical fitness is an essential requirement for the issue of any seagoing certificate of competency, licence or for the revalidation of one of these. Medical fitness may be proven by the production of a medical fitness certificate issued not more than two years (one year in respect of a seafarer 55 years of age and over) beforehand by an approved medical practitioner. No seagoing certificate, licence or revalidation will be issued until a valid medical fitness certificate is presented.

4.1.4 Details of medical standards, requirements and criteria for seafarers to be met by candidates are specified in Appendix A, B, C, D & E to the "Guidelines on the Medical Examinations of Seafarers" published by the International Labour Organization and the International Maritime Organization.

4.1.5 Candidates in Hong Kong may obtain from the Seagoing Examination and Mercantile Marine Office a list of medical practitioners who are approved by the Director to issue medical fitness certificates. The list could also be downloaded from the Marine Department's website. Certificate holders or candidates abroad who are unable to attend at one of the approved practitioners in Hong Kong and who require a medical fitness certificate for revalidation or the issue of certificate should, if they are in a country which is a signatory to the STCW Convention, obtain the form of certificate approved by the Administration of that country. In other cases they should refer to the Seagoing Examination and Mercantile Marine Office for guidance.

4.2 **Certificates of Proficiency in Basic Training Certificates**

4.2.1 In accordance with STCW Regulation VI/1, the following approved basic training or instruction needs to be provided to seafarers before they are assigned to any shipboard duties:

- (a) personal survival techniques;
- (b) fire prevention and fire-fighting;

- (c) elementary first Aid; and
 - (d) personal safety and social responsibilities.
- 4.2.2 Seafarers qualified in accordance with paragraph 4.2.1 are required, every five (5) years, to provide evidence of having maintained the required standard of competence by holding a valid Certificate of Proficiency in Basic Training.
- 4.2.3 Basic Training is a prerequisite for issue of any Certificate of Competency. It is included in the qualification for the Certificate of Competency issued.
- 4.3 **Certificates of Proficiency in Survival Craft, Rescue Boats and Fast Rescue Boats**
- 4.3.1 In accordance with STCW Regulation VI/2, there are two kinds of certificates under this category. They are:
- (a) Proficiency in Survival Craft and Rescue Boats Other Than Fast Rescue Boats; and
 - (b) Proficiency in Fast Rescue Boats
- 4.3.2 Seafarers qualified in accordance with paragraph 4.3.1 are required, every five (5) years, to provide evidence of having maintained the required standard of competence by holding a valid Certificate of Proficiency in Survival Craft and Rescue Boats other than Fast Rescue Boats and/or a valid Certificate of Proficiency in Fast Rescue Boats.
- 4.3.3 Proficiency in survival craft and rescue boats other than fast rescue boats is a prerequisite for issue of any Certificate of Competency. It is included in the qualification for the Certificate of Competency issued.
- 4.4 **Certificate of Proficiency in Advanced Fire-Fighting**
- 4.4.1 In accordance with STCW Regulation VI/3 of the STCW Code, seafarers designated to control fire-fighting operations shall have successfully completed advanced training in techniques for fighting fire.
- 4.4.2 Seafarers qualified in accordance with paragraph 4.4.1 are required, every five (5) years, to provide evidence of having maintained the required standard of competence by holding a valid Certificate of Proficiency in Advanced Fire-Fighting.
- 4.4.3 Training in advanced fire-fighting is a prerequisite for issue of any Certificate of Competency. It is included in the qualification for the Certificate of Competency issued.
- 4.5 **Certificate of Proficiency in Medical First Aid**
- 4.5.1 Seafarers who are designated to provide medical first aid on board ship shall hold a Certificate of Proficiency in Medical First Aid or the equivalent in compliance with STCW Regulation VI/4, paragraph 1.
- 4.5.2 Certificate of Proficiency in Medical First Aid or the equivalent is not subject to a limiting period of validity.

4.5.3 Training in Medical First Aid is a prerequisite for issue of any Certificate of Competency. It is included in the qualification for the Certificate of Competency issued.

4.6 **Certificate of Proficiency in Medical Care**

4.6.1 Seafarers who are designated to take charge of medical care on board ship shall hold a Certificate of Proficiency in Medical Care or the equivalent to comply with STCW Regulation A-IV/4, paragraph 2.

4.6.2 Certificate of Proficiency in A Medical Care or the equivalent is not subject to a limiting period of validity.

4.6.3 Training in Medical Care is a prerequisite for issue of Class 1 and Class 2 Certificate of Competency (Deck Officer).

4.7 **Certificate of Proficiency in Security Awareness**

4.7.1 Seafarers employed or engaged in any capacity on board a ship which is required to comply with the provisions of the ISPS Code shall hold a Certificate of Proficiency in Security Awareness in compliance with the standard of competence as stipulated in the paragraph 4 of Section A-VI/6 of the STCW Code.

4.7.2 Certificate of Proficiency in Security Awareness or the equivalent is not subject to a limiting period of validity.

4.8 **Certificate of Proficiency in Designated Security Duties**

4.8.1 Seafarers who are designated to perform security duties shall be required to hold a Certificate of Proficiency in Designated Security Duties to comply with the standard of competence as stipulated in the paragraph 6 of Section A-VI/6 of the STCW Code.

4.8.2 Certificate of Proficiency in Designated Security Duties or the equivalent is not subject to a limiting period of validity.

4.9 **Certificate of Proficiency for Ship Security Officers**

4.9.1 Seafarers who are designated to act as the ship security officer shall be required to hold a Certificate of Proficiency for Ship Security Officers to meet the requirements laid down in STCW Regulation VI/5.

4.9.2 Certificate of Proficiency for Ship Security Officers or the equivalent is not subject to a limiting period of validity.

4.10 **Efficient Deck Hand Certificate (EDH)**

4.10.1 The Efficient Deck Hand training covers basic seamanship, ropework and wire work, use of lifting equipment, rigging of stages and bosuns' chairs, basic painting and

- maintenance routines, steering and duties of the lookout and the responsibilities of crew members under the Code of Safe Working Practices for Merchant Seamen.
- 4.10.2 There is no limiting period of validity for this certificate.
- 4.10.3 Training in Efficient Deck Hand is a prerequisite for issue of Class 3 Certificate of Competency (Deck Officer).
- 4.11 **Global Maritime Distress and Safety System (GMDSS) - General Operator Certificate (GOC)**
- 4.11.1 Seafarers applying for issue of any Certificate of Competency (Deck Officer), they must have completed approved education and training and meet the standards of competence specified in section A-IV/2 of the STCW Code by holding a valid GMDSS GOC.
- 4.11.2 This certificate is issued by the Director-General of Communications, Office of the Communications Authority and has a period of validity of five (5) years.
- 4.12 **Radar Navigation Certificate - Operational Level**
- 4.12.1 Officers in charge of a navigational watch on ships that are fitted with radar equipment is required to meet the mandatory standards in Table A-II/1 of the STCW Code for “use of radar and ARPA to maintain safety of navigation”.
- 4.12.2 This certificate has no limitation period of validity.
- 4.11.3 The elements of an approved Radar Navigation Certificate - Operational Level shall include the theory necessary to understand the system configuration, principles, performance of shipborne marine radar and automatic radar plotting aid (ARPA), the factors affecting radar performances, how radar information is obtained, displayed and analysed, the limitations and accuracy of that information, the correct use of operational controls to obtain an optimal display and use radar information to maintain safety of navigation.
- 4.13 **Radar Navigation Certificate - Management Level**
- 4.13.1 Chief Mate and Master are required to meet the mandatory minimum standards of competence for seafarers in Navigation for the Function: Maintain safe navigation through the use of information from navigation equipment and system to assist command decision-making at the Management Level as specified in Table A-II/2 of the STCW Code.
- 4.13.2 This certificate has no limiting period of validity.
- 4.12.3 The elements of an approved Radar Navigation Certificate - Management Level shall include use of radar, ARPA, Target Tracking (TT) and Automatic Identification System (AIS) reporting functions, bridge teamwork, and search and rescue for trainees at the management level on ships fitted with radar equipment, acquiring, analyzing and applying radar resources to manage proper command decision-making with regard to safe navigation and successful search and rescue, to meet the mandatory requirements relating to the radar system: “plan a voyage and conduct navigation”, “determine

position and the accuracy of resultant position fix by any means”, “coordinate search and rescue operations”, “establish watchkeeping arrangements and procedures” as set prescribed in section A-II/2 of the STCW Code.

4.14 **Operational Use of Electronic Chart Display and Information Systems (ECDIS) Certificate**

4.14.1 Masters and officers certificated under chapter II of the STCW Convention serving on board Hong Kong registered ships fitted with ECDIS are to be familiarized with the ship’s equipment including ECDIS in accordance with STCW Regulation I/14. They must complete an approved generic ECDIS training course. In addition to this, manufacturer approved equipment-specific training needs to be carried out according to the International Safety Management (ISM) Code.

4.14.2 ECDIS familiarization ensures that master and navigating officers are familiar with the specific make and model of the ECDIS equipment on board (including backup) before taking charge of a navigational watch.

4.13.3 There is no limiting period of validity for this certificate.

4.13.4 Generic ECDIS training is part of the certificates of competency and no further documents should be required. If there is a lack of ECDIS competence, a limitation will be included in the certificates of competence (CoC) of the seafarer. If there is no limitation in this CoC they are evidence of having completed the required training and the standard of competence has been achieved. For the type specific familiarization, no requirements exist. This lays in the responsibility of the company and should be part of the ISM system. Each shipping company can decide how they do the familiarization within their company and how they ensure the documentation of such a familiarization.

4.15 **Maritime Resource Management (MRM)**

4.15.1 MRM forms part of the education and training requirements to obtain a Certificate of Competency. MRM aims to provide masters and officers with the leadership and managerial skills required by the section A-II/1 and A-II/2 of the STCW Code.

4.15.2 Training in MRM is a prerequisite for issue of any Certificate of Competency.

4.15.3 Candidates for new Certificates of Competency, and those upgrading to the next level, will be required to undertake the MRM training. If seafarers are revalidating their CoC using seagoing service or time spent in an acceptable occupation they will not be required to undertake additional MRM training. They are considered to have gained sufficient knowledge, understanding and proficiency in MRM and bridge/engine room resource management.

4.15.4 If seafarers are revalidating their CoC expired more than five (5) years, they will be required to undertake the relevant MRM training course.

4.16 **Short Course Certificates obtained outside Hong Kong**

4.16.1 Equivalent certificates to those listed in this chapter issued by Administration or training institute of any other country which at the time of issue was a signatory to the

STCW Convention may be accepted as meeting the requirements of the Determinations. In all cases, evidences and verifications are required where appropriate to certify that training in the particular subjects has been performed in accordance with the requirements.

4.17 **Overseas Education and Training**

4.17.1 Education and training outside Hong Kong may be acceptable, subject to the Director being satisfied with the standard of such overseas education and training.

CHAPTER 5

QUALIFYING REQUIREMENTS

- 5.1 **To qualify for the issue of an initial deck officer certificate of competency of seagoing type of any class in Hong Kong, a candidate must:**
- (a) have completed approved basic training courses in accordance with Section A-VI/1 of the STCW Code on:
 - (i) personal survival techniques;
 - (ii) fire prevention and fire fighting;
 - (iii) elementary first Aid; and
 - (iv) personal safety and social responsibilities; andhold a valid Certificate of Proficiency in Basic Training;
 - (b) have completed an approved advanced fire-fighting course or equivalent in accordance with section A-VI/3 of the STCW Code and hold a valid Certificate of Proficiency in Advanced Fire-Fighting;;
 - (c) have completed an approved medical first aid or equivalent in accordance with section A-VI/4, paragraphs 1 to 3 of the STCW Code and hold a Certificate of Proficiency in Medical First Aid;
 - (d) have completed an approved proficiency in survival craft and rescue boats course or equivalent in accordance with section A-VI/2, paragraphs 1 to 6 of the STCW Code and hold a valid Certificate of Proficiency in Survival Craft Rescue Boats and Rescue Boats other than Fast Rescue Boats;
 - (e) have completed an approved course on Training for Seafarers with Designated Security Duties or equivalent in accordance with Section A-VI/6 paragraph 6 to 8 of the STCW Code and hold a Certificate of Proficiency in Designated Security Duties; and
 - (f) have completed an approved course on maritime resource management or equivalent..
- 5.2 **Certificate of Competency (Deck Officer) Class 3**
- 5.2.1 To qualify for the issue of a Certificate of Competency (Deck Officer) Class 3, a candidate must:
- (a) be not less than 18 years of age;
 - (b) have completed an approved education and training that meet the standard of competence specified in Section A-II/1 of the STCW Code;
 - (c) have approved seagoing service of not less than twelve (12) months on ships of 500 gross tonnage or more, as part of an approved training programme for trainee deck officer, which included on board training that meets the

requirements of Section A-II/1 of the STCW Code and is documented in an approved training record book;

- (d) have performed, during the required seagoing service, bridge watchkeeping duties of not less than six (6) months under the supervision of the master or a certificated officer and be able to produce a certificate to that effect signed by the Master(s) under whom he has sailed. Duties associated with bridge watchkeeping may include the duties of a lookout but not those of a helmsman;
- (e) have to pass the examination specified in Chapter 7 unless holding valid exemptions from that examination or from parts of it as allowed in Chapter 6; and
- (f) hold an approved and valid medical fitness certificate.

5.2.2 Candidates of not less than 18 years of age who do not have the approved education and training as stipulated in paragraph 5.2.1 will be eligible to sit for examination to qualify for the issue of a certificate of competency (Deck Officer) Class 3 provided that the candidates shall

- (a) have completed an education to the standard of Secondary level or equivalent level;
- (b) have served not less than thirty-six (36) months of approved seagoing service on ships of 500 gross tonnage or more;
- (c) have performed during the approved seagoing service in 5.2.2 (b), a bridge watchkeeping as prescribed in paragraph 5.2.1 (d); and
- (d) have completed an approved education and training course.

5.2.3 Both candidates of paragraphs 5.2.1 and 5.2.2 shall in addition to those stated in paragraph 5.1, hold the following subsidiary and additional certificates/qualifications or acceptable alternatives as specified in Chapter 4:

- (i) GMDSS (GOC);
- (ii) Radar Navigation – Operational Level;
- (iii) Efficient Deck Hand Certificate;
- (iv) Proficiency in Communications;
- (v) Operational Use of ECDIS.

5.2.4 Seagoing service as a General Purpose rating will count at two thirds of the full rate until the first year of qualifying service is completed (i.e. for a maximum of 18 months actual seagoing service in that capacity), thereafter such seagoing service will count in full.

5.3 **Certificate of Competency (Deck Officer) Class 2**

5.3.1 To qualify for the issue of a Certificate of Competency (Deck Officer) Class 2, a candidate must:

- (a) have served not less than twelve (12) months qualifying seagoing service on ships of 500 gross tonnage or more as a watchkeeping officer in the deck

department while holding a seagoing Class 3 Certificate of Competency (Deck Officer) Class 3 or a certificate specified as equivalent to that certificate;

- (b) have completed an approved education and training that meets the standard of competence specified in Section A-II/2 of the STCW Code;
- (c) pass the examination specified in Chapter 7 unless holding valid exemptions from that examination or from parts of it as allowed in Chapter 6;
- (d) hold an approved and valid medical fitness certificate; and
- (e) in addition to those stated in paragraph 5.1, hold the following subsidiary and additional certificates/qualifications or acceptable alternatives as specified in Chapter 4:
 - (i) GMDSS (GOC);
 - (ii) Radar Navigation – Management Level;
 - (iii) Certificate of Proficiency in Medical Care;
 - (iv) Operational use of ECDIS.

5.3.2 At least six (6) months of the twelve (12) months approved seagoing service specified in paragraph 5.3.1 (a) must have been gained on ships trading between locations which are more than 500 miles apart by sea.

5.4 **Certificate of Competency (Deck Officer) Class 1 (Master Mariner)**

5.4.1 To qualify for the issue of a Certificate of Competency (Deck Officer) Class 1 (Master Mariner), a candidate must:

- (a) have served not less than thirty-six (36) months of approved seagoing service on ships of 500 gross tonnage or more as a watchkeeping officer in the deck department while holding a Certificate of Competency (Deck Officer) Class 3 or a certificate specified as equivalent to that certificate;
- (b) have completed an approved education and training that meet the standard of competence specified in Section A-II/2 of the STCW Code;
- (c) pass the examination specified in Chapter 7 unless holding valid exemptions from that examination or from parts of it as allowed in Chapter 6;
- (d) hold an approved and valid medical fitness certificate; and
- (e) in addition to those stated in paragraph 5.1, hold the following subsidiary and additional certificates/qualifications or acceptable alternatives as specified in Chapter 4:
 - (i) GMDSS (GOC);
 - (ii) Radar Navigation – Management Level;
 - (iii) Certificate of Proficiency in Medical Care
 - (iv) Operational use of ECDIS.

5.4.2 At least twelve (12) months of the thirty-six (36) months of approved seagoing service specified in paragraph 5.4.1 (a) must have been gained on ships trading between locations which are more than 500 miles apart by sea.

CHAPTER 6

EXAMINATION PROCEDURES

6.1 **General**

- 6.1.1 Examinations will begin at a time appointed by the examiner.
- 6.1.2 No person will be allowed to enter the examination room other than candidates and those whose duties require them to be present.
- 6.1.3 Total silence must be maintained in the examination room.
- 6.1.4 The following publications and tables are specified by the Director and copies of them are available for the use of candidates in the examination room:
- Norries Nautical Tables (full edition)
Burtons Nautical Tables
Admiralty Tide Tables Volumes 1, 2, 3, and 4
Nautical Almanac (NP 314)
International Code of Signals
- 6.1.5 Candidates who wish to use their own copies of the above tables, or who wish to use tables other than those above, may bring such tables into the examination room on condition that they submit them to the examiner for scrutiny and approval before the examination begins.
- 6.1.6 Subject to the examiner's approval, no restriction will be placed on the use of any tables. However, candidates should understand the theory on which such tables are based on and the tables used should be capable of giving an answer within the required limits of accuracy as stated in paragraph 6.3. When tables other than those specified by the Director are used in answering a question, the name of the tables should be stated on the candidate's answer paper.
- 6.1.7 Candidates may use their own drawing instruments and non-programmed calculators provided that the examiner's approval is obtained before the examination begins. Candidates are required to produce fully worked out calculations. Answers where the process of calculation is not shown may be subject to a deduction of marks.
- 6.1.8 Other than Nautical Tables which have been approved by the examiner, no books or papers of any kind whatsoever may be brought into the examination room. Any candidate infringing this rule will be regarded as having failed the examination and will not be accepted for re-examination for a period of six (6) months.
- 6.1.9 Candidates who deface, or otherwise injure or damage, any property of the Marine Department will have their service papers, (certificates, testimonials etc.) retained until such time as they have replaced the damaged items.
- 6.1.10 No candidate is permitted to leave the examination room without permission and without giving up the paper on which he is engaged. A candidate who does so will be regarded as having failed in that paper.

- 6.1.11 All work must be shown and any rough work which is done on scrap paper supplied for the purpose must be handed in at the end of the examination.
- 6.1.12 During the course of an examination, any candidate who is found to be:
- referring to an unauthorised book or paper;
 - copying from another candidate;
 - affording assistance or information to another candidate;
 - accepting assistance or information from another candidate;
 - communicating in any way with another candidate;
 - copying any part of the questions or answers for the purpose of taking them from the examination room;
 - marking any unauthorized audio or picture or video recording or any other form of recording;
 - guilty of insolence to the examiner; or
 - guilty of disorderly or improper conduct in the examination room;
 - will be regarded as having failed the examination as a whole and will not be accepted for re-examination for such period as may be decided by the Director.

6.2 **Written Examinations**

- 6.2.1 Candidates will be provided with as many sheets of ruled paper as are necessary for them to complete the written work, all of which, except for sketches, must be completed in ink. Each answer should be started by writing in the margin the number of the question to which it relates. Candidates should, in their own interests, write in a clear and legible hand.
- 6.2.2 Unless a question specifies the required method of solution, candidates will be allowed to solve problems by any method, provided that the method used is correct in principle, affords the required degree of precision, and is clearly shown on the answer paper.
- 6.2.3 Answer scripts from written examinations, including charts used should be retained for a period of not less than sixty (60) days following an examination in case a candidate wishes to appeal to the Director against the decision of examiner.

6.3 **Degree of Precision Required**

- 6.3.1 Candidates should work to a degree of precision consistent with the data supplied in the question and the problem concerned. Information from tables should be extracted as accurately as possible consistent with the inherent accuracy of the tables, and final answers should be given to the best degree of precision which is justified, and no more.
- 6.3.2 When making calculations to obtain a ship's position, candidates are expected to work to 0.2 of a minute of arc, and to the nearest second of time.

- 6.3.3 Any method of calculation which is used to obtain a position line should be capable of providing an answer correct to within one nautical mile.
- 6.3.4 Answers to calculations of compass errors, bearings and courses, should be worked to within 0.5 degrees of arc.
- 6.3.5 Tidal calculations should be worked to provide an answer which is within 15 cm of a precise result.

6.4 **Exemptions**

- 6.4.1 Candidates who have successfully completed the approved Higher Diploma in Maritime Studies Course at the Vocational Training Council and obtained 70 marks in average on the written paper in the corresponding subject in Ocean Navigation, provided that each subject must be obtained more than 60 marks, will be exempted from the examination of the written paper of “Offshore Navigation” in the certificate of Competency (Deck officer) Class 3 examination.
- 6.4.2 Candidates who have successfully completed the approved Higher Diploma in Maritime Studies Course at the Vocational Training Council and obtained 70 marks and 90 marks on the written paper and the practical test respectively in the corresponding subject of Occupational Training, will be exempted from the examination of the written paper and the practical test of “Proficiency in Communication” in the Certificate of Competency Class 3 (Deck Officer) examination.
- 6.4.3 Upgrading Course for Certificates of Competency (CoC) Class 3 (Deck) is being held by Maritime Services Training Institute in respect of the subjects “Coastal Navigation (CN)”, “Offshore Navigation (ON)”, “Watchkeeping and Meteorology (WM)”, “General Ship Knowledge (GSK)” and “Proficiency in Communications (Signals)”.
- 6.4.4 Upgrading Course for Certificates of Competency (CoC) Class 2/1 (Deck) is being held by Maritime Services Training Institute in respect of the subjects “Navigation (Nav)”, “Passage Planning (PPL)”, “Ship Technology (STE)”, “Shipboard Operation (SOP)” and “Commerce and Law (LAW)”.
- 6.4.5 The graduates from the HD-ITL and BBA-ISTL of the Hong Kong Polytechnic University shall attend this Upgrading Course if they have not completed the relevant subjects in concern.
- 6.4.6 When any candidate has attended and passed any subjects in the Upgrading Course, the corresponding subjects would be exempted from the written examination for Certificate of Competency (Deck officer) examination conducted by Marine Department.
- 6.4.7 There is five (5) years limiting period of validity of exemption for Class 3 upgrading courses and two (2) years for Class 2/1 upgrading courses.

6.5 **Validity of Partial Passes**

- 6.5.1 Except as provided elsewhere in this section, a pass in any subject of the examinations for a certificate of competency will remain valid for two (2) years from the date of examination subject to the discretion of the examiner in an individual cases.

6.6 **Resits**

6.6.1 A candidate who fails only in one paper of a part of the written examination may, at the discretion of the examiner, be permitted to resit that paper. A failure at the resit will mean that the candidate is deemed to have failed that paper of the examination. A pass in the resit will mean that the candidate is deemed to have passed that paper of the examination.

6.7 **Oral and Practical Examinations**

6.7.1 The oral/practical part of each examination is intended to ascertain the candidate's competency in the practical aspects of an officer's duties.

6.7.2 During the course of the examination, the examiner will test candidates', among other things, knowledge of the sense and the intention of the International Regulations for Preventing Collisions at Sea. A mere ability to recite the regulations word for word will not suffice to ensure a candidate's passing, nor will a lack of such ability necessarily result in failure, provided that the candidate is able to satisfy the examiner that he grasps the full significance, content, and practical application of the regulations. Examiners will not ask for the content of the regulations by number, but by the subject with which they deal. The use of verses as aids to memorizing the regulations will be discouraged.

6.7.3 Examiners will not place candidates in the position of handling a sailing vessel, but will test the candidate's ability to recognize the lights and signals of a sailing vessel and the candidate's understanding of a sailing vessel's possible manoeuvres according to the direction of the wind.

6.7.4 A candidate who fails in an oral/practical examination through serious weakness in practical knowledge may, at the examiner's discretion be given a time penalty which may include a requirement to perform further seagoing service before being re-examined. Such seagoing service will not exceed six (6) months and may be performed in any deck capacity in any seagoing ship.

6.7.5 A candidate not appearing for an oral examination at the appointed time may be failed by default unless reasonable proof can be provided that it is unavoidable.

6.7.6 Any candidate involved in irregular behaviour including cheating, will be failed in the oral examination. The circumstances of reported cases will be considered individually and it may result in barring the candidate to sit the oral examination either for a specific period, or until time penalty has been completed.

CHAPTER 7

EXAMINATION STRUCTURE AND MARKING

7.1 **Certificate of Competency (Deck Officer) Class 3**

7.1.1 The examination for this certificate is as follows.

Coastal Navigation;	2½ -hour written paper,	Pass mark 70%
Offshore Navigation;	2-hour written paper,	Pass mark 70%
General Ship Knowledge;	3-hour written paper,	Pass mark 50%
Watchkeeping & Meteorology;	2½ -hour written paper,	Pass mark 60%
Seamanship & Safety;	Oral and Practical examination.	
Note : Proficiency in Communication;	1-hour written paper Oral / Practical	Pass mark 70% Pass mark 90%

7.2 **Certificate of Competency (Deck Officer) Class 2**

7.2.1 The examination for this certificate is as follows.

Navigation;	3-hour written paper,	Pass mark 60%
Passage Planning;	3-hour written paper,	Pass mark 60%
Ship Technology;	3-hour written paper,	Pass mark 50%
Shipboard Operations;	3-hour written paper,	Pass mark 60%
Commerce and Law;	3-hour written paper,	Pass mark 50%
Seamanship & Safety;	Oral and Practical examination.	

7.3 **Certificate of Competency (Deck Officer) Class 1 (Master Mariner)**

7.3.1 For candidates who have passed all written papers of the Class 2 examination at the Marine Department, the examination for a Certificate of Competency (Deck Officer) Class 1 (Master Mariner) will be solely an oral/practical examination. Candidates for Class 1 who do not hold a Certificate of Competency (Deck Officer) Class 2 issued by Marine Department via examination under the Determination, or whose Certificate of Competency (Deck Officer) Class 2 was issued under previous Determinations or Rules, or hold a Certificate of Competency (Deck Officer) Class 2 issued by other Administration, will be required to pass Part A and Part B of the Class 2 examination in addition to the Class 1 oral/practical examination.

CHAPTER 8

EXAMINATION SYLLABUSES

8.1 **Introduction**

8.1.1 The examinations set under these syllabuses will use the SI units, or where this is impractical, the appropriate and accepted nautical units.

8.1.2 The syllabuses are intended to be progressive from class to class and the syllabus for a higher class in any examination is always presumed to include the syllabus for the corresponding subject, if any, in the preceding class of certificate of competency. Examination questions may be set which combine more than one paragraph in the syllabus.

8.1.3 A candidate may be asked questions arising out of the written work in the oral and practical examination if the examiner deems it necessary on account of any weakness shown by the candidate.

8.2 **Proficiency in Communications (1-hour)**

Function : *Navigation at the operational level*

Competence (i) : *Use the IMO Standard Marine Communication Phrases and use English in written and oral form.*

Criteria : *English language navigational publications and messages relevant to the safety of the ship are correctly interpreted or drafted. Communications are clear and understood.*

8.2.1 **English Language**

- (a) Adequate knowledge of English language to enable the officer to use charts and other nautical publications, to understand meteorological information and messages concerning ship's safety and operation, to communicate with other ships, coast stations and VTS centres and to perform the officer's duties also with a multilingual crew.
- (b) The ability to use and understand the IMO Standard Marine Communication Phrases (IMO SMCP) to cover shipboard terms and operations to do with mooring and anchoring, deck work and cargo work; bridge watchkeeping, instructions from pilots, and instructions to ratings; emergency situations, safety of life at sea, and fire-fighting.
- (c) Radio-telephony, simple operation of VHF and Receiver/Transmitter sets.
- (d) Procedures in handling messages to do with entering and leaving port and structured according to the IMO Standard Marine Communication Phrases.
- (e) Procedures for the handling of distress traffic, urgency, safety messages and navigational messages.

Competence (ii) : Transmit and receive information by visual signaling

Criteria : Communications within the operator's area of responsibility are consistently successful.

8.2.2 **Visual Signaling**

- (f) The ability to transmit and receive, by Morse light, distress signal SOS as specified in Annex IV of the International Regulations for Preventing Collisions at Sea, 1972, as amended and appendix 1 of the International Code of Signals.
- (g) The ability to transmit and receive, by Morse light, visual signaling of single-letter signals as specified in the International Code of Signals.
- (h) The ability to recognize flags of the International Code of Signals and to know their single letter meanings.
- (i) The ability to use the International Code of Signals.

8.3 **Certificate of Competency (Deck Officer) Class 3**

PART A

8.3.1 **Paper 1 - Coastal Navigation (2½-hour)**

Function : Navigation at the operational level

Competence : Plan and conduct a passage and determine position

Criteria : The primary method of fixing a ship's position is the most appropriate to the prevailing circumstances and conditions. Information obtained from nautical charts and publications is relevant, interpreted correctly and properly applied.

Terrestrial and Coastal Navigation

- (a) The ability to determine a ship's position and to properly monitor a coastal passage using the following types of information or any combination thereof:

DR position and estimated position.

Positions fixed using position lines obtained visually or by radar as bearings or ranges from shore land-marks, lighthouses, beacons and buoys.

Position fix obtained by the use of electronic navigational aids including Global Navigation Satellite System (GNSS) and Global Positioning System (GPS).

Information obtained from log, propeller revolutions, soundings, winds, tides, currents and estimated speed.

Parallel indexing by radar.

Transit bearings and single bearings used as clearing and leading lines.

Horizontal and vertical angles.

Transferred position lines, single position lines.

- (b) A thorough knowledge of navigational charts, light lists and sailing directions and their correction using Notices to Mariners and navigational warnings by radio and NAVTEX and ship's routing information.
- (c) Basic knowledge of the principles of passage planning, and watchkeeper's duties in implementing a passage plan.
- (d) The ability to lay off suitable courses and prepare charts and information for a coastal passage, and to calculate ETA.
- (e) A thorough knowledge of navigational procedures in connection with traffic separation schemes and other routing schemes, and the use of reporting in accordance with the General Principles for Ship Reporting Systems and with VTS procedures.
- (f) The correction of courses for compass error. A knowledge of the separate effects of variation and deviation on compass headings.
- (g) The ability to assess and compare the accuracies and reliabilities of the types of information as in (a).
- (h) The ability to adjust course, amend the allowance for tidal stream, set, and/or leeway and amend ETA as a result of information obtained as in (a).
- (i) Landfalls and approaching harbours and anchorages. The use of visual indications, radar and appropriate instruments in making landfall and during an approach.
- (j) The use of Admiralty Tide Tables.
- (k) Ability to calculate tidal conditions. To use tide tables in conjunction with Tidal Stream Atlas and charted information to obtain tidal stream predictions.

8.3.2 ***Paper 2 - Offshore Navigation (2-hour)***

Function : *Navigation at the operational level*

Competence : *Plan and conduct a passage and determine position*

Criteria : The primary method of fixing a ship's position is the most appropriate to the prevailing circumstances and conditions. Information obtained from nautical charts and publications is relevant, interpreted correctly and properly applied.

Celestial Navigation

- (a) Ability to use celestial bodies to determine a ship's position.

- (b) From an observation of any heavenly body to find a position line, using any suitable method.
- (c) To obtain a position by the use of position lines obtained from celestial observations.
- (d) Identification of stars and planets commonly used in navigation; precomputation of altitudes and azimuths of stars and planets; procedures for morning and evening star sights.
- (e) To find latitude by meridian altitude and by observation of Polaris.
- (f) Ability to determine and allow for compass errors by finding the true bearing of a heavenly body.
- (g) The ability to find by calculation the great circle and/or the rhumb line course and distance between two positions and DR and estimated positions given run and predicted current effect.

8.3.3 **Paper 3 - General Ship Knowledge (3-hour)**

Function (1) : Controlling the operation of ship and care for persons on board at the operational level

Competence : Maintain seaworthiness of ship

Criteria : Actions to ensure and maintain the watertight integrity of a ship are in accordance with accepted practice.

Stability conditions comply with the IMO intact stability criteria under all conditions of loading.

Ship Construction

- (a) General knowledge of the principal structural members of a ship and the proper name for the various parts.
- (b) Basic ship types. Ship propulsion systems.
- (c) Hull nomenclature, main dimensions and tonnages, on-board plans and drawings.

Ship Stability

- (d) Working knowledge and application of stability, trim, stress tables, diagrams and stress calculating equipment.
- (e) Understanding of the fundamentals of watertight integrity. Actions to be taken in the event of partial loss of intact buoyancy.
- (f) Stability criteria. Hull form coefficients, displacement, deadweight, lightweight. Curves and tables of displacement and TPC. load line markings. Density, relative density, archimedes principle, flotation. Effects of density of water on

draught and freeboard. FWA, DWA. The marine hydrometer and its uses. Buoyancy, reserve buoyancy, partial loss of intact buoyancy.

- (g) Transverse stability; definitions of 'G', 'B', and 'M'. Equilibrium positions of 'G', 'B', and 'M'. Righting lever and righting moment.
- (h) Stability information; stability information supplied to ships. Uses of hydrostatic data for stability, draught and trim. Adding and removing weights. Free surface effect, danger of slack tanks.

Function (2) : Cargo handling and stowage at operational level

Competence : Monitor the loading, stowage, securing, care during the voyage and the unloading of cargoes

Inspect and report defects and damages to cargo spaces, hatch covers and ballast tanks

Criteria : Cargo operations are carried out in accordance with cargo plan or other document and established safety rules and regulations, equipment operating instructions and shipboard stowage limitations.

The handling of dangerous, hazardous and harmful cargoes complies with international regulations and recognized standards and codes of safe practice.

Communications are clear, understood and consistently successful.

The inspections are carried out in accordance with laid down procedures and defects and damages are detected and properly reported.

Cargo handling and stowage

- (a) Cargo handling, stowage & securing.
- (b) Knowledge of the effect of cargo including heavy lifts on the seaworthiness and stability of the ship.
- (c) Knowledge of safe handling, stowage and securing of cargoes including solid bulk cargoes and dangerous, hazardous and harmful cargoes and their effect on the safety of life and of the ship.
- (d) Ability to establish and maintain effective communications during loading and unloading.
- (e) Definitions of various terms used in the carriage of goods, i.e. bale capacity, grain capacity, stowage factors, broken stowage, measurement cargoes, deadweight cargoes.
- (f) Cargo handling equipment. The meaning of Safe Working Load. The correct rigging and safe operation of derricks, cranes, stores hoists, etc.

- (g) Types of hatch covers in general use and their safe opening, closing, sealing and securing. Tank lids, trunkway doors, ventilation systems, hatches and other openings to cargo spaces.
- (h) The stowage of general and mixed or unitised types of cargoes in general cargo ships. The making and use of cargo plans. Preparation of holds. Use of dunnage. Separation of cargoes. Loading and discharging processes and the securing of different types of cargo including heavy items. How to prevent or minimise cargo damage due to sweat and pilferage.
- (i) The stowage of dry cargoes in bulk carriers. Loading and discharging methods. Action to be taken in the case of grab damage. The preparation of holds for most common types of bulk cargoes. The principal hazards to ship and crew associated with the carriage of solid bulk cargoes, and how the effects of these may be minimised.
- (j) The handling, stowage, securing and carriage of deck cargoes.
- (k) Containerised and Ro-Ro cargoes. Methods of handling and securing in fully specialised or partly conventional ships. Principal hazards to be avoided during loading, carriage and discharge. Checks to be made to ensure correct out-turn. Main container types.
- (l) Liquid cargoes. Loading and discharging processes in tankers and OBO's. The hazards associated with petroleum, liquefied gases and bulk chemical cargoes and general safety precautions and measures. Gas testing instruments. Gauging and venting systems. Cargo pipeline systems. Tank cleaning and gas freeing processes.
- (m) Salt water ballast. The requirement to ballast in light ship condition. The control of ballast operations simultaneously with loading and discharging. Filling, discharging and stripping methods. Reasons for the avoidance of overflowing ballast on deck. The hazards of excessive free surface or stress produced by the combination of ballast and cargo operations. Checks to be made on the integrity of ballast tanks.

Inspect and report defects and damages to cargo spaces, hatch covers and ballast tanks

- (n) Knowledge and ability to explain where to look for damages and defects most commonly encountered due to loading and unloading operations, corrosion and severe weather conditions. Ability to state which parts of a ship shall be inspected each time in order to cover all parts within a given period of time.
- (o) Identify those elements of ship structure which are critical to the safety of ship. State the causes of corrosion in cargo spaces and ballast tanks and how corrosion can be identified and prevented.
- (p) Knowledge of procedures on how the inspections shall be carried out. Ability to explain how to ensure reliable detection of defects and damages. Understanding of the purpose of the “Enhanced Survey Programme”.

8.3.4 ***Paper 4 - Watchkeeping and Meteorology (2½ -hour)***

Function (1) : Navigation at the operational level

Competence (i) : Maintain a safe navigational watch

Criteria : The conduct, hand over and relief of the watch conforms with accepted principles and procedures.

Watchkeeping

- (a) Thorough knowledge of effective bridge team work procedures. The use of routing in accordance with the General Provisions on Ships' Routing.
- (b) Operation and care of gyro-compasses and systems under the control of the master gyro including automatic pilot systems.
- (c) A knowledge of the principles of magnetic and gyro-compasses including errors and their correction.
- (d) A knowledge of the operation and use of bridge instrumentation.
- (e) Knowledge of the capability and limitations of ECDIS operations. Proficiency in operation, interpretation, and analysis of information obtained from ECDIS.
- (f) The use of information from navigational equipment such as shipborne Automatic Identification System (AIS) for maintaining a safe navigational watch.
- (g) Knowledge of blind pilotage techniques.
- (h) The use of reporting in accordance with the General Principles for Ship Reporting Systems and with VTS procedures.

Competence (ii) : Plan and conduct a passage and determine position

Criteria : Performance checks and tests to navigation systems comply with manufacturer's recommendations and good navigational practice. The selection of the mode of steering is the most suitable for the prevailing weather, sea and traffic conditions and intended maneuvers. Measurement and observation of weather conditions are accurate and appropriate to the passage. Meteorological information is correctly interpreted and applied.

Electronic systems of position fixing and navigation

- (i) Ability to determine the ship's position by use of electronic navigational aids including Global Navigation Satellite System (GNSS) and Global Positioning System (GPS) and the knowledge on their principles of operation and associated errors.

Echo sounders

- (j) Ability to operate the equipment and apply the information correctly, and the knowledge on their principles of operation and associated errors.

Compass - magnetic and gyro

- (k) Knowledge of the principles of magnetic and gyro compasses

Ability to determine errors of the magnetic and gyro compasses, using celestial and terrestrial means, and to allow for such errors.

Speed and distance measuring instrument

- (l) Knowledge of the principles of log and speed measuring equipment and associated errors.

Steering control systems

- (m) Knowledge of steering control systems, operational procedures and change-over from manual to automatic control and vice-versa. Adjustment of control for optimum performance.

Meteorology

- (n) Ability to use and interpret information obtained from meteorological instruments and the ability to apply the meteorological information available.
- (o) Knowledge of the characteristics of the various weather systems, reporting procedures and recording systems.
- (p) General structure of the atmosphere and the significance of variations in sea surface atmospheric pressure; simple relationship between pressure gradient, wind speed and direction.
- (q) A knowledge of global mean pressure distribution. Daily and seasonal variations. Prevailing winds, land and sea breezes. Monsoons.
- (r) The Beaufort wind scale. Water vapour in the atmosphere. Evaporation, condensation, precipitation. Meaning of saturation, relative humidity and dew point.
- (s) Formation and classification of clouds. Fog, mist and haze.
- (t) Synoptic and prognostic charts. Types of weather charts received by FAX.
- (u) The structure of weather reporting by shore and shipstations.

Competence (iii) : Respond to a distress signal at sea

<p><i>Criteria : The distress or emergency signal is immediately recognized. Contingency plans and instructions in standing orders are implemented and complied with.</i></p>

Search and rescue

- (v) A knowledge of the contents of the International Aeronautical and Maritime Search and Rescue (IAMSAR) Manual.

Function (2) : Controlling the operation of the ship and care for persons on board at the operational level

Competence (i) : Ensure compliance with pollution prevention requirements

<i>Criteria : Procedures for monitoring shipboard operations and ensuring compliance with MARPOL requirements are fully observed.</i>

Prevention of pollution of the marine environment and anti-pollution procedures

- (a) Knowledge of the precautions to be taken to prevent pollution of the marine environment. Importance of proactive measures to protect the marine environment. Emergency action to be taken in case of spillage.
- (b) Anti-pollution procedures and all associated equipment.
- (c) Marine pollution by ships, likely causes, e.g. leakage during transfer of oil cargo or fuel, discharges during cleaning of holds or tanks, contamination of ballast.

Competence (ii) : Monitor compliance with legislative requirements

<i>Criteria : Legislative requirements relating to safety of life at sea, security and protection of the marine environment are correctly identified.</i>

- (d) Basic working knowledge of the relevant IMO conventions concerning safety of life at sea, security and protection of the marine environment.

Competence (iii) : Shipboard operation and safety procedure

<i>Criteria : Duties of watch and shipboard operations are complied with proper procedures to ensure safety of ship and persons on board.</i>

- (e) Duties of an officer in charge of mooring operations, stationed forward or aft. Securing tugs. Securing alongside and to buoys. Entering and leaving docks and drydocks. Preparation for getting under way. Embarkation and disembarkation of pilots.
- (f) Anchors and cables and the usual arrangements for their handling, stowage and securing. Procedure of coming to a single anchor. Duties of an officer in charge of anchor handling operations. Use of an anchor when approaching or leaving a berth.
- (g) Duties of a deck officer on watch in port, during cargo work in various types of vessels, and in drydock or repair yard. The contents of relevant Merchant Shipping Notices and their application, with special attention to the following:
 - Access to the vessel and holds etc.
 - Lighting on deck, in holds, and overside.
 - The covering or fencing of hazardous openings.
 - Procedures to be followed for entry into enclosed spaces or prior to commencing hot work.
 - Safety precautions which may be required for work processes.

- (h) A knowledge of the various items of Life-saving equipment and Fire-fighting equipment which are provided in cargo and passenger vessels, and their maintenance.
- (i) A knowledge of the requirements for emergency organisation and training. The duties of an officer in organising and taking part in drills dealing with fire-fighting and other emergencies and abandon ship. The organisation of emergency parties.
- (j) A knowledge of the contents and application of the relevant sections of the "Code of Safe Working Practices for Merchant Seafarers " (COSWP), Hong Kong Merchant Shipping Information Notes and Hong Kong Merchant Shipping Notices.

Competence (iv) : Application of leadership and teamworking skills

Criteria : Effective leadership behaviours are demonstrated. Decisions are most effective for the situation.

- (k) Working knowledge of shipboard personnel management and training.
- (l) A knowledge of related international maritime conventions and recommendations, and national legislation.
- (m) Ability to apply task and workload management.
- (n) Knowledge and ability to apply effective resource management.
- (o) Knowledge and ability to apply decision-making techniques.

8.3.5 ***Oral and Practical Examination - Seamanship and Safety***

Function : Navigation at the operational level

Competence (i) : Maintain a safe navigational watch

Content of Examination	Criteria for Satisfactory Examination
<i>Watchkeeping</i>	
A knowledge of the content of STCW, "Principles to be Observed in Keeping a Navigational Watch" and "Watchkeeping in Port".	The conduct, hand over and relief of the watch conforms with accepted principles and procedures.
A thorough knowledge of the content and application of the International Regulations for Preventing Collisions at Sea.	A proper look-out is maintained at all times to accepted principles and procedures.
A knowledge of IALA buoyage systems A and B.	Lights, shapes and sound signals conform with requirements are correctly recognized.
To demonstrate the ability to use a sextant, chronometer and azimuth mirror.	Proficiency in the practical use of sextant, Chronometer and azimuth mirror

<i>Bridge resource management</i>	Resources are allocated and assigned as needed in correct priority to perform necessary tasks.
Knowledge of bridge resource management principles.	

Competence (ii) : Manoeuvre the ship

Content of Examination	Criteria for Satisfactory Examination
<i>Ship manoeuvring and handling</i>	
The effects of deadweight, draught, trim, speed and under keel clearance on turning circles and stopping distances.	Safe operating limits of ship propulsions, steering and power systems are not exceeded in normal manoeuvre. Adjustments made to the ship's course and speed to maintain safety of navigation.
The effects of wind and current on ship handling.	
Manoeuvres and procedures for the rescue of person overboard.	
Squat, shallow water and similar effects. Proper procedures for anchoring and mooring.	
Helm orders. Conning the ship. Engine orders and controls. Basic ideas about manoeuvring. The effects of rudder and propellers.	

Competence (iii) : Respond to emergencies

Content of Examination	Criteria for Satisfactory Examination
<i>Emergency procedures</i>	
Precautions for the protection and safety of passengers in emergency situations.	The type and scale of the emergency is promptly identified, and initial action and, if appropriate, manoeuvring of the ship are in accordance with contingency plans and are appropriate to the urgency of the situations and nature of emergency.
Initial action to be taken following a collision or a grounding; initial damage assessment and control.	
Appreciation of the procedures to be followed for rescuing persons from the sea, assisting a ship in distress, responding to emergencies which arise in port.	
Understanding of fundamental actions to be taken in the event of partial loss of intact buoyancy.	
Action required in emergency situations such as man-overboard, engine or steering failures, stopping the ship. Knowledge of items listed in IMO/ILO "Document of Guidance, 1985", Section 12 Appendix I,	

as applicable to deck watchkeepers.	
Survival at sea. Knowledge required by an officer in charge of a survival craft. Procedure on abandoning ship. Survival techniques. Life-Saving signals and rescue methods.	

8.4 Certificate of Competency (Deck Officer) Class 2

8.4.1 Paper 1 - Navigation (3-hour)

Function : Navigation at the management level

Competence (i) : Establish watchkeeping arrangements and procedures

Criteria: Watchkeeping arrangements and procedures are established and maintained in compliance with international regulations and guidelines so as to ensure the safety of navigation, security, protection of the marine environment and safety of the ship and persons on board.

- (a) Effective bridge teamwork procedures.
- (b) Bridge watchkeeping arrangements for all conditions. Standing orders. IMO requirements for navigational instruments, charts and publications.
- (c) Pilots; watchkeeping duties and bridge procedures with a pilot embarked. The Master/Pilot relationship. Exchange of information.
- (d) Practice in sending and replying to messages by voice using the IMO Standard Marine Communication Phrases.
- (e) Compiling distress, urgency, safety and navigational messages for transmission by telex.
- (f) Compiling messages and replies in appropriate forms to and from pilot stations, harbour control, VTS, agents, owners and charterers etc.
- (g) Knowledge of how to obtain navigational warnings and weather information.
- (h) Contents, use and updating of relevant Lists of Radio Signals.
- (i) Procedures concerning medical advice by radio.
- (j) The Master's responsibilities with regard to radio communications.

Competence (ii) : Forecast weather and oceanographic conditions

Criteria : The likely weather conditions predicted for a determined period are based on all available information and actions to be taken.

- (k) Ability to understand and interpret Synoptic and Prognostic charts and their use in forecasting area weather taking into account the local weather conditions and information provided by FAX transmissions as applicable to surface navigation. Ice reports.
- (l) Knowledge of the characteristics of various weather systems, including tropical revolving storms and avoidance of storm centres and the dangerous quadrants. Ocean currents, ice regions and areas of persistent fog.
- (m) Use all appropriate navigational publications on tides and currents. Ability to calculate tidal conditions. The principles and practice of climatic routeing and weather routeing.
- (n) Meteorology and maritime climatology; air masses and their typical characteristics. The significance of lapse rates. Polar and inter-tropical fronts. The principal pressure systems and associated weather. Thunderstorms and line squalls.

Competence (iii) : Determine position and the accuracy of resultant position fix by any means

Criteria : The primary method chosen for fixing the ship's position is the most appropriate to the prevailing circumstances and conditions. The accuracy of fixes is within accepted levels.

Position Determination in all conditions

- (o) Error theory as applied to navigation in practice in the appreciation of the accuracy of position fix. Sources of error, detection of misrepresentation of information and method of correction to obtain accurate position fixing.
- (p) Position finding by currently adopted methods such as celestial observations, terrestrial observations and modern electronic navigational aids. Considerations underlying the choice of navigational systems for different trades and geographical regions.

Competence (iv) : Determine and allow for compass errors

Criteria : The method and frequency of checks for errors of magnetic and gyro-compasses ensures accuracy of information.

- (q) Knowledge of the principles of magnetic and gyro-compasses.
- (r) An understanding of systems under the control of the master gyro and a knowledge of the operation and care of the main types of gyro-compass.
- (s) The magnetic compass; its use, construction, care and maintenance. The Earth's magnetic field. Directive force. Forces in a ship causing deviation and usual means of compensation. An appreciation of the separate effects of "hard" and "soft" iron. The recording of deviations and means of obtaining a table or curve of deviations. Occasions on which compass adjustment is required.

Competence (v) : Manoeuvre and handle a ship in all conditions

Criteria : All decisions concerning berthing, unberthing, manoeuvring and anchoring are based on a proper assessment of the ship's manoeuvring and engine characteristics and the forces and external factors to be expected.

- (t) The principles of ship handling; factors and forces for ship handling and manoeuvring.
- (u) Stopping distances and turning circles. The use of manoeuvring data to plan turns and determine wheel-over points.
- (v) Monitoring of turns and application of constant-rate-of-turn techniques..
- (w) The effects of shallow water, squat, bank (canal effect) and ship-ship/ship-tug interaction.
- (x) The effects of bow and stern thrusters and stabilisers.
- (y) Precautions in manoeuvring to launch or recover rescue boats or survival craft.
- (z) Practical measures to be taken when navigating in or near ice or in conditions of ice accumulation on board.

Competence (vi) : Co-ordinate search and rescue operations

Criteria : The plan for co-ordinating search and rescue operations is in accordance with international guidelines and standards.

- (aa) A thorough knowledge of and ability to apply the procedures contained in the International Aeronautical and Maritime Search and Rescue (IAMSAR) Manual. Rendezvous navigation. The GMDSS and other shore-based SAR organisations and reporting systems.

8.4.2 **Paper 2 - Passage Planning (3-hour)**

Function : Navigation at the management level

Competence : Plan a voyage and conduct navigation

Criteria : The reasons for the planned route are supported by facts and statistical data obtained from relevant sources and publications.

- (a) Voyage and passage planning and navigation for all stages; i.e. ocean, coastal, landfall, pilotage, and for all conditions and constraints such as restricted waters, meteorological conditions, ice, restricted visibility, Traffic Separation Schemes and areas of extensive tidal effects.
- (b) Routeing in accordance with the general principles on ship's routeing.
- (c) Reporting in accordance with the General Principles for Ship Reporting Systems and with VTS procedures.

- (d) The proper application of all navigational precautions; procedures required for the preparation and execution of a passage plan.
- (e) Maintain the safety of navigation through the use of ECDIS and associated navigation systems to assist command decision making.

8.4.3 **Paper 3 - Ship Technology (3-hour)**

Function (1) : Controlling the operation of the ship and care for persons on board at the management level

Competence (i) : Control trim, stability and stress

Criteria : Stability and stress conditions are maintained within safe limits at all times.

- (a) Understanding of fundamental principles of ship construction and the theories and factors affecting trim and stability and measures necessary to preserve trim and stability; knowledge of the principal structural members of a ship and how they function to resist stresses. Methods of compensating for discontinuity of strength. Local and special stiffening.
- (b) Specialist ship types; typical sections and layout of compartments and special structural requirements. The use of special steels, aluminium and fire-resistant materials in ship construction.
- (c) Means of closing openings including hull doors, ramps etc. General ideas of subdivision requirements.
- (d) Properties of paints and coatings. Modern methods of combating corrosion.
- (e) General ideas on welding processes in construction and repair work. Types of weld, common faults and visual examination of welding.
- (f) Testing of tanks and other watertight work. The preparation of damage reports and repair lists. A knowledge and use of on-board shipplans.
- (g) Procedures in dry docks and repair yards with regard to the ordering and checking of repairs and maintenance. Main points for attention in dry dock.

Competence (ii) : Maintain safety and security of the ship's crew and passengers and the operational conditions of life-saving and fire-fighting and other safety systems

Criteria : Procedures for monitoring fire detection and safety systems ensure that all alarms are detected promptly and acted upon in accordance with established emergency procedures.

- (h) Maintenance of operational conditions of life-saving and fire-fighting systems and other safety system required by SOLAS for passenger ships and cargo ships.
- (i) A thorough knowledge of life-saving appliance regulations (SOLAS)

Competence (iii) : Develop emergency and damage control plans and handle emergency situations

Criteria : Emergency procedures are in accordance with the established plans for emergency situations.

- (j) Preparation of contingency plans for response to emergencies.
- (k) Ship construction, including damage control.
- (l) Methods and aids for fire prevention, detection and extinction.
- (m) Functions and use of life-saving appliances.

Function (2) : Navigation at the management level

Competence : Operate remote control of propulsion plant and engineering systems and services

Criteria : Plant, auxiliary machinery and equipment are operated in accordance with technical specifications and within safe operating limits at all times.

- (a) Operating principles and characteristics of the major types of marine power plants. General knowledge of marine engineering terms.
- (b) Ship's auxiliary machinery including pumps, winches, windlasses, hatches, derricks, cranes and other equipment.
- (c) Propulsion; main methods, bow and stern thrusters and stabilisers. Factors affecting performance, manoeuvring, power and economy.
- (d) Ship's electrical generation and distribution, the more common systems and methods. Typical emergency generators and emergency electrical supply systems.
- (e) The principles of refrigeration and its shipboard applications.
- (f) Steering gear, main and emergency. Principles of operation and control of the main types, automatic and manual. Tests and checks. Change over procedures.
- (g) Control systems; remote control and monitoring systems and methods for main and auxiliary machinery, pumps, valves etc. Simple knowledge of different types of sensors and transducers and the general electronic, hydraulic etc. principles which are employed in control systems.
- (h) General ship maintenance; planning and recording of maintenance work. Maintenance of hatches, watertight doors, ventilators and other closing arrangements, and cargo handling equipment etc. Replacement and lubrication schedules.

8.4.4 **Paper 4 - Shipboard Operations (3-hour)**

Function (1) : Controlling the operation of the ship and care for persons on board at the management level

Competence : Control trim, stability and stress

<i>Criteria: Stability and stress conditions are maintained within safe limits at all times.</i>
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- (a) Knowledge of IMO recommendations concerning ship stability. A full knowledge of the use of stability and hydrostatic information carried on board ships.
- (b) Knowledge of the effect on trim and stability of a ship in the event of damage to and consequent flooding of a compartment and counter measures to be taken.
- (c) Changes in trim, draught and heel due to loading, discharging and shifting weights and floating in water of different densities. The requirement for the ship to be upright with a safe trim.
- (d) The effect of list and trim on stability, including the effect of change of waterplane in heavy weather.
- (e) The angle of loll. Correction of a heavylist.
- (f) The use and measurement of Load Lines and freeboard as applied to loading calculations. The effects of hog, sag, water density and temperature. Draught surveys.
- (g) An understanding of those aspects of the conditions of assignment which affect the stability and seaworthiness of a ship.
- (h) The effects of variations in centre of gravity, righting lever and freeboard on the value and range of stability. The concept of dynamical stability. Wind and wave excitation.
- (i) Trim and stability requirements and calculations applied to drydocking.
- (j) Stability requirements for special cargoes; e.g. grain, concentrates, deck cargoes.
- (k) Shearing forces and bending moments, their nature and the significance of values and curves. How to plan cargo and ballast operations to minimise stresses.

Function (2) : Cargo handling and stowage at the management level

Competence (i) : Plan and ensure safe loading, stowage, securing, care during the voyage and unloading of cargoes

<i>Criteria : Cargo operations are planned and executed in accordance with established procedures and legislative requirements. Stowage and securing of cargoes ensures that stability and stress conditions remain within safe limits at all times during the voyage.</i>
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- (a) Knowledge of and ability to apply relevant international regulations, codes and standards and recommendations relating to the safe handling, stowage, securing and transport of cargoes.
- (b) Knowledge of the effect on trim and stability of cargoes and cargo operations.
- (c) Use of stability and trim diagrams and stress calculating equipment, including automatic data-based (ADB) equipment and knowledge of loading cargoes and ballasting in order to keep hull stress within acceptable limits.
- (d) Stowage and securing of cargoes on board ships including cargo handling gear, securing and lashing equipment.
- (e) Loading and unloading operations with special regard to the transport of cargoes identified in the Code of Safe Practice for Cargo Stowage and Securing.
- (f) General knowledge of tankers and tanker operations.
- (g) Planning, loading, discharging, stowing and securing with particular regard to heavy weights.
- (h) The correct use of cargo gear with special attention to lifting appliances. Safe working loads and associated limits. Proof loads. Calculations of approximate stresses on parts of cargo lifting gear. Equipment tests.
- (i) Certificates and records to be kept on boardship.
- (j) Preparation of holds for general and dry bulk cargoes. Loading port surveys.
- (k) Containers; their stowage and securing in holds and on deck in specialized and conventional ships. Planning and stability considerations.
- (l) Knowledge of the operational and design limitations of bulk carriers.
- (m) Ability to use all available shipboard data related to loading, care and unloading of bulk cargoes.
- (n) Ability to establish procedures for safe cargo handling in accordance with the provisions of the relevant instruments such as IMDG Code, IMSBC Code, MARPOL 73/78 Annexes III and V and other relevant information.
- (o) Ability to explain the basic principles for establishing effective communications and improving working relationship between ship and terminal personnel.

Competence (ii) : Assess reported defects and damages to cargo spaces, hatch covers and ballast tanks and take appropriate action.

Criteria : Evaluations are based on accepted principles, well-founded arguments and are correctly carried out. The decisions taken are acceptable, taking into consideration the safety of the ship and the prevailing conditions.

- (p) Knowledge of the limitations on strength of the vital constructional parts of a standard bulk carrier and ability to interpret given figures for bending moments and shear forces.

- (q) Ability to explain how to avoid detrimental effects on bulk carriers of corrosion, fatigue and inadequate cargo handling.

Competence (iii) : Carriage of dangerous cargoes

Criteria : Planned distribution of cargo is based on reliable information and established guidelines and legislative requirements. Information on dangers, hazards and special requirements is recorded in a format suitable for easy reference in the event of an incident.

- (r) International regulations, standards, codes and recommendations on the carriage of dangerous cargoes, including the International Maritime Dangerous Goods (IMDG) Code and IMO "Emergency Procedures for Ships Carrying Dangerous Goods".
- (s) Carriage of dangerous, hazardous and harmful cargoes; precautions during loading and unloading and care during the voyage.
- (t) Bulk cargoes; coal, grain, ores etc. Their tendency to shift. The influence of stowage and distribution on stress and stability. Pulsing effects with ore concentrates. Moisture content limits for safe carriage. International regulations, standard, codes and recommendation on the carriage of dangerous cargoes including the International Maritime Solid Bulk Cargoes (IMSBC) Code.
- (u) Petroleum cargoes; IMO requirements as from SOLAS and MARPOL. Tanker and OBO layout and equipment. Tanker operations including safety and pollution avoidance.
- (v) Chemical and liquefied gas cargoes; operational procedures, safety and anti-pollution requirements.

8.4.5 **Paper 5 - Commerce and Law (3-hour)**

Function : Controlling the operation of the ship and care for persons on board at the management level

Competence (i) : Monitor and control compliance with legislative requirements and measures to ensure safety of life at sea, security and the protection of the marine environment

Criteria : Procedures for monitoring operations and maintenance comply with legislative requirements. Planned renewal and extension of certificates ensures continued validity of surveyed items and equipment.

- (a) Knowledge of international maritime law embodied in international agreements and conventions.
- (b) Certificates and other documents required to be carried on board ships by international conventions. Their period of validity and how they may be obtained and extended. The Master's responsibility concerning damage and repair to ship's structure or equipment.

- (c) Responsibilities under the relevant requirements of International Convention on Load Lines. Load line zones and seasonal areas; their significance in planning for cargoes and voyages. The requirements for load line surveys and inspections.
- (d) Responsibilities under the requirement of the International Convention for the Safety of Life at Sea. Safety Equipment, Safety Construction, Safety Radio.
- (e) Responsibilities under the International Convention for the Prevention of Pollution from Ships and surveys and their requirements. Methods and aids to prevent pollution of the marine environment by ships.
- (f) Responsibilities under the relevant requirements of Maritime Labour Convention, 2006.
- (g) Responsibilities under the relevant requirements of International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978, as amended.
- (h) Maritime declarations of health and the requirements of the International Health Regulations.
- (i) Responsibilities under international instruments affecting the safety of the ship, passengers, crew and cargo.
- (j) An outline knowledge of the legislation implementing International Agreements and Conventions.
- (k) The Master's responsibility with regard to:
 - i. rendering assistance to vessels in distress.
 - ii. the reporting of tropical storms, ice, derelicts and other dangers to navigation.
 - iii. the reporting of marine casualties and pollution incidents.
- (l) Registration of ships; the certificate of registry and its legal significance.
- (m) The classification of ships; Classification Societies and the requirements for surveys.
- (n) An outline knowledge of the Tonnage Rules. Tonnage measurement, tonnage certificate.
- (o) Suez and Panama Canal Tonnage Certificates and their requirements.
- (p) Certification of officers and ratings. Manning and watch-keeping requirements.
- (q) The Law of Pilotage.
- (r) Port entry and clearance; documents required by Customs, Immigration, Port Health and other authorities. The functions of ship's agents.

- (s) Carriage of goods; delineation of responsibilities for the carriage of cargo. Cargo documentation. Relationship between owners, Master, shipper and charterer.
- (t) Charter parties; terms, conditions and responsibilities. Deviation, laydays, demurrage, and despatch.
- (u) Cargo insurance. Particular average, general average.
- (v) Functions of P&I Clubs. Statements of Facts. Noting protest, Notice of Readiness, Cargo surveys.
- (w) Hull insurance. Damage reports and surveys. Certificate of Seaworthiness. Port of Refuge.
- (x) Towing and salvage agreements.
- (y) Ship's accounts; disbursements and accounts of wages.
- (z) Crew; engagement and discharge. Victualling and accommodation rules and requirements. Injured and deceased seamen, action to be taken. Engagement of substitutes and repatriation.
- (aa) Fumigation of ships and cargoes with reference to the IMO "Recommendations on the Safe use of Pesticides in Ships."
- (ab) Official Log Book; entries to be made therein.

Competence (ii) : Use of leadership and managerial skill

Criteria : The crew are allocated duties and informed of expected standards of work and behaviour. Training objectives are activities are based on an assessment of current competence and capabilities and operational requirements. Effective leadership behaviours are demonstrated

- (ac) A knowledge of personnel management, organization and training aboard ships. Knowledge of related international maritime conventions, recommendation and local legislation. Disciplinary procedures. Procedures for settling grievances.
- (ad) Ability to apply task and workload management. Knowledge and ability to apply effective resource management and decision-making techniques. Development, implementation, and oversight of standard operating procedures

Competence (iii) : Maintain safety and security of the ship's crew and passengers and the operational condition of life-saving, fire-fighting and other safety systems

Criteria : Procedures for monitoring fire detection and safety systems ensure that all alarms are detected promptly and acted upon in accordance with established emergency procedures.

- (ae) Actions to be taken to protect and safeguard all persons on board in emergencies.

- (af) Actions to limit damage and save the ship following a fire, explosion, collision or grounding.
- (ag) The organisation of musters, training and drills for emergencies.
- (ah) Safety Committees, Safety Officers and Representatives. Reporting of accidents and dangerous occurrences.

8.4.6 **Oral and Practical Examination - Seamanship and Safety**

Function : *Navigation at the management level*

Competence (i) : Manoeuvre and handle a ship in all conditions

Content of Examination	Criteria for Satisfactory Examination
Manoeuvring and handling a ship in all conditions, including :	All decisions concerning berthing, unberthing, anchoring and ship's manoeuvres are based on proper assessments of ship's manoeuvring, engine characteristics and the forces and external factors to be expected. Knowledge on Effective leadership behaviours is demonstrated.
1 manoeuvres when approaching pilot stations and embarking or disembarking pilots with due regard to weather, tide, headreach and stopping distances	
2 handling ship in rivers, estuaries and restricted waters, having regard to the effects of current, wind and restricted water on helm response	
3 application of constant rate of turn techniques	
4 manoeuvring in shallow water, including the reduction in under-keel clearance caused by squat, rolling and pitching	
5 interaction between passing ships and between own ship and nearby banks (canal effect)	
6 berthing and unberthing under various conditions of wind, tide and current with and without tugs	
7 ship and tug interaction	
8 use of propulsion and manoeuvring systems	

9	choice of anchorage; anchoring with one or two anchors in limited anchorages and factors involved in determining the length of anchor cable to be used	
10	dragging anchor, clearing fouled anchors	
11	dry-docking, both with and without damage	
12	management and handling of ships in heavy weather, including assisting a ship or aircraft in distress, towing operations; means of keeping an unmanageable ship out of trough of the sea, lessening drift. Preparation for heavy weather.	
13	precautions in manoeuvring to launch rescue boats or survival craft in bad weather	
14	methods of taking on board survivors from rescue boats and survival craft	
15	ability to determine the manoeuvring and propulsion characteristics of common types of ships with special reference to stopping distances and turning circles at various draughts and speeds	
16	importance of navigating at reduced speed to avoid damage caused by own ship's bow wave and stern wave	
17	practical measures to be taken when navigating in or near ice or in conditions of ice accumulation on board	
18	use of, and manoeuvring in and near, traffic separation schemes and in vessel traffic service (VTS) areas	
19	use of leadership and managerial skill	

Competence (ii) : Establish watchkeeping arrangements and procedures

Content of Examination	Criteria for Satisfactory Examination
Collision avoidance; a thorough knowledge of the International Regulations and appropriate Annexes and	Watchkeeping arrangement and procedures are established and maintained in compliance with international regulations

<p>their application. Knowledge of the IALA buoyage systems.</p> <p>Thorough knowledge of the content, application and intent of the Basic Principles to be observed in Keeping a Navigational watch.</p>	<p>and guidelines so as to ensure safety of navigation, protection of marine environment and safety of ship and persons on board.</p>
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Competence (iii) : Respond to navigational emergencies

Content of Examination	Criteria for Satisfactory Examination
<p>Action in an emergency, including:</p> <ol style="list-style-type: none"> 1 When grounding is imminent and after grounding 2 Beaching and floating a grounded ship with or without assistance 3 Collision is imminent and after collision or impairment of the watertight integrity of the hull by any cause 4 Limiting damage and salvaging the ship following a fire, explosion, collision or grounding 5 Protection and safeguard of all persons on board in emergencies 6 Dealing with major leaks by emergency pumping, temporary plugging or intentional beaching 7 Man overboard 8 Recovering persons from the water 9 Rescue from rescue boats, survival craft, wreck etc. 10 Emergency use of anchors <p>Assessment of damage control</p> <p>Emergency steering</p> <p>Emergency towing arrangement and towing procedures</p> <p>Abandon ship</p> <p>Rescue from an enclosed space</p> <p>Oil spillage</p> <p>Emergencies in port. The use of shore services and co-operation with shore personnel</p> <p>Helicopter operations, embarking and</p>	<p>The type and scale of any problem is promptly identified and decisions and actions maximise the safety of persons on board and minimise the effects of any malfunction of the ships systems.</p>

disembarking personnel	
Emergency communications	

8.5 **Certificate of Competency (Deck Officer) Class 1 (Master Mariner)**

8.5.1 ***Oral / Practical Examination***

The syllabus for this examination is the same as that for the oral/practical examination of the Class 2 examination. For Class 1, however, the candidate will be expected to answer in depth and from the perspective that would be expected of a candidate for command.

CHAPTER 9

ISSUE OF LICENCES TO PERSONS HOLDING NON-HONG KONG CERTIFICATES

9.1 General

9.1.1 The following classes of seagoing licences will be issued:

Licence (Deck Officer) Class 1
Licence (Deck Officer) Class 2
Licence (Deck Officer) Class 3

9.1.2 To qualify for the issue of a licence an applicant must:

- (a) have attained the minimum age specified in the Determinations for the certificate of competency to which the licence applied for is equivalent.
- (b) produce proof of age and nationality in a form acceptable to the Director.
- (c) produce a valid medical fitness certificate issued by a recognized medical practitioner preceding the application for a licence.
- (d) produce a valid seagoing certificate of competency and a valid GMDSS General Operator certificate recognized by the Director for the issue of a licence.
- (e) satisfy any other conditions which may from time to time be specified by the Director.

9.1.3 In recognizing an individual certificate of competency issued by another Administration the Director may specify any additional periods of sea service, qualifications, or requirements which he considers necessary for the issue of a licence.

9.2 Classes of Licences

9.2.1 Whenever a licence is issued it shall be of a Class determined by the Director.

9.3 Dangerous Cargo Endorsements to Licences

9.3.1 The holder of a licence who satisfies the conditions specified in Section 4 of the Certificates of Proficiency or Endorsements for Oil, Chemical and Liquefied Gas Tanker Cargo Operations Determinations for the issue of a dangerous cargo endorsement may have his licence endorsed accordingly.

9.4 Issue of Replacement Licence

9.4.1 In the event that a licence is lost, the holder may apply to the Seagoing Examination and Mercantile Marine Office for a replacement licence. A fee will be charged for the provision of such a licence unless the holder can show that the loss was as a result of

shipwreck or ship fire. An applicant for a replacement licence will be required to make a declaration to the Director as to the circumstances in which the licence was lost.

CHAPTER 10

REVALIDATION OF CERTIFICATES

10.1 **Introduction**

10.1.1 All seagoing certificates of competency will fall due for revalidation on the expiry date stated on the certificate. Once a certificate has been revalidated it will thereafter fall due for further revalidation upon expiry of the extended validity.

10.1.2 If the certificate of competency is revalidated when there is more than 6 months before the end of its validity, the new certificate of competency shall be valid not exceeding five years from the revalidation date. Otherwise, the new certificate of competency shall be valid until a date not exceeding five years from the date of expiry of the existing certificate.

10.2 **Conditions to be satisfied for revalidation**

10.2.1 A certificate holder who wishes to revalidate his certificate must pay the appropriate fee and must :

- (a) meet the medical fitness requirements by producing a valid medical fitness certificate signed by an approved medical practitioner;
- (b)
 - (i) have served as a master or deck officer as appropriate to his/her certificate in any seagoing ship, other than a pleasure vessel or a fishing vessel, for at least:
 - (i-1) twelve (12) months in total during the preceding five (5) years, or
 - (i-2) three (3) months in total during the preceding six (6) months immediately prior to revalidating; or
 - (ii) have satisfactorily completed an approved shore based updating course; or
 - (iii) have completed approved seagoing service, performing functions appropriate to the certificate held, for a period of not less than three (3) months in a supernumerary capacity, or in a lower officer rank than that for which the certificate held is valid immediately prior to taking up the rank for which it is valid; or
 - (iv) have performed functions relating to the duties appropriate to the class of certificate held which are considered to be at least equivalent to the twelve (12) months sea service specified above. A list of appropriate functions is contained in paragraph 10.2.2; or
 - (v) have passed an approved test;
- (c) hold a valid GMDSS General Operator Certificate.
- (d) have completed an approved updating refresher course on basic training, survival craft and rescue boats, and advanced fire-fighting or to present a valid Certificate of Proficiency in Basic Training, a valid Certificate of Proficiency in Survival

Craft and Rescue Boats other than Fast Rescue Boats, and a valid Certificate of Proficiency in Advanced Fire-Fighting;

- (e) have to present a Certificate of Proficiency in Medical First Aid;
- (f) have to present a Certificate of Proficiency in Security Awareness or Certificate of Proficiency in Designated Security Duties or Certificate of Proficiency for Ship Security Officers as appropriate to the security duties assigned to the candidate;
- (g) have completed an approved or accepted training courses on operational use of Electronic Chart Display Information System (ECDIS); and
- (h) have completed an approved or accepted training course on maritime resources management.

10.2.2 If the holder of certificate is unable to demonstrate the above seagoing service he/she may revalidate his/her Certificate of Competency by demonstrating at least thirty (30) months' employment in an occupation the Director considers equivalent to the 12 months seagoing service, in the five (5) years immediately prior to revalidating his/her Certificate of Competency. Occupations will be considered equivalent if applicant can demonstrate proficiency by virtue of having performed functions relating to the duties appropriate to Certificate of Competency held. A list of occupations which will be favourably considered is given below:

- (a) licensed pilots;
- (b) pilot superintendents;
- (c) Marine Department surveyors / assistant surveyors of ships ;
- (d) Lecturers / instructors in nautical studies at maritime colleges;
- (e) marine superintendents;
- (f) harbour masters;
- (g) dock masters and berthing officers;
- (h) marine officers /assistant marine officers of Marine department;
- (i) dredging superintendents;
- (j) hydrographic surveyors;
- (k) ship and cargo surveyors;
- (l) Classification Society marine surveyors.

10.2.3 The list of alternative occupations in paragraph 10.2.2 is not exhaustive and application for revalidation from certificate holders who have been engaged in other activities will be considered by the Director on their merits. Original company letter(s) demonstrating 30 months in an acceptable occupation must detail applicant's role(s), responsibilities and dates of service. He/she must demonstrate that he/she has performed functions relating to the duties appropriate to the class or grade of certificate he/she hold. Applicants must also have completed the training courses in paragraph 10.2.1 (c) to (h).

10.2.4 Additional information concerning the procedure for revalidation may be obtained from the Seagoing Examination and Mercantile Marine Office.

10.2.5 Applications for revalidation from certificate holders abroad may be made by post to the Seafarers' Certificate Section and should include all evidence and supporting documents showing qualifications obtained as per stipulated in paragraph 10.2.1.

10.3 **Revalidation of expired Certificate of Competency**

- 10.3.1 In addition to fulfilling the prerequisite requirement laid down in paragraph 5.1 of Chapter 5 and presenting a valid medical fitness certificate issued by an approved medical practitioner, the following conditions shall be met as appropriate.
- 10.3.2 Holders of a certificate of competency expired within the last ten (10) years shall pass an oral examination relating to the development and requirements of international maritime conventions before a temporary certificate of competency of lower rank is issued for a period of six (6) months. The temporary certificate of competency may be extended at the discretion of the Master and Deck Officer Examiner. The original class of certificate of competency will be issued after the holder has completed a 3-month seagoing service.
- 10.3.3 Holders of a certificate of competency expired for more than ten (10) years but within twenty (20) years shall pass a Class 3 oral examination before a temporary Class 3 certificate of competency is issued for a period of six (6) months. The temporary certificate of competency may be extended at the discretion of the Master and Deck Officer Examiner. The holders of temporary certificate of competency have to complete a 3-month seagoing service and passed an oral examination for the original class of their certificate of competency before the same class of certificate of competency is issued.
- 10.3.4 Holders of a certificate of competency expired for over twenty (20) years shall pass all the written examination related to navigation, stability, structure and operations; and an oral examination before the original class of certificate of competency is issued.

Appendix I
STANDARD FORM OF DOCUMENTS AND CERTIFICATES

FORM 1

CERTIFICATE OF WATCHKEEPING SERVICE
(Deck Cadet & Rating)

PART 1

This is to certify that Mr./Ms. has served on vessel
M.V./M.T./SS
from to in the capacity
of deck cadet / rating under my command. During this period the above-named cadet / rating
performed bridge watch keeping for not less than hours out of every 24 hours
while the vessel was at sea.

* In addition he/she has regularly carried out other duties in connection with the routine and
maintenance of the ship.

*

During the period of engagement stated above-named cadet / rating:

*(a) was granted no leave of absence,

*(b) was granted leave of absence as follows:

.....

which period(s) was/were deducted from his total leave entitlement.

Signature of Master

Date

PART 2

During the period.....
the vessel was in the final stages of construction and the above-named cadet / rating served on
board.

Signature of *Company
Superintendent/Master

Date

* delete as appropriate

(Reverse of Certificate of Watchkeeping Service)

Mr./Mshas served as
on vessel M.V./M.T/SS..... under
my command for the periods stated :

His/Her conduct during the period stated has been

His/Her ability has been

His/Her sobriety has been

(Chop)

Master

Date

Appendix I

STANDARD FORM OF DOCUMENTS AND CERTIFICATES

FORM 2

**CERTIFICATE OF WATCHKEEPING SERVICE
(WATCHKEEPING OFFICER)**

PART 1

This is to certify that Mr./Ms. has served on vessel M.V./M.T./SS from to..... in the capacity of watchkeeping officer under my command. During this period the above-named officer was in full charge of a navigational watch for not less than.....hours out of every 24 hours while the vessel was at sea.

* In addition he/she has regularly carried out other duties in connection with the routine and maintenance of the ship.

* Bridge watches were doubled during the following periods and at no other times: During these periods the above named officer served as the *Senior/Junior of two watchkeeping officers.

During the period of engagement stated the above-named officer:

- * (a) was granted no leave of absence,
- * (b) was granted leave of absence as follows:

.....

which period(s) was/were deducted from his/her total leave entitlement.

Signature of Master

Date

PART 2

During the period..... the vessel was in the final stages of construction and the above-named officer served on board.

Signature of *Company Superintendent/Master

Date

* delete as appropriate

(Reverse of Certificate of Watchkeeping Service)

Mr./Ms.has served as
on vessel M.V./M.T./SS..... under
my command for the periods stated :

His/Her conduct during the period stated has been

His/Her ability has been

His/Her sobriety has been

(Chop)

Master

Date