

M.S. Notice 11 of 1998

Subject : Examination system for Marine Engineer Officer

In compliance with the STCW 1995 Convention requirements, the Merchant Shipping (Standards of Training, Certification and Watchkeeping for seafarers) Rules, 1998 have been gazetted and will be in force with effect from 1st August 1998. These new rules encompasses both the Deck and Engine Departments and are applicable to those candidates commencing their initial training on or after the date of coming into force of these rules.

The Merchant Shipping Notice containing the detailed guidelines for examination system for Marine Engineer Officers to usher in the new Rules and to upgrade the existing certificates are drawn up and enclosed for your information and necessary action.

You are hereby advised to kindly ensure that this Merchant Shipping Notice is available to all concerned.

Yours faithfully,

sd/

(A Chatterjee)

Dy. Chief Surveyor with the Govt.Of India.

Preamble

Merchant Shipping Notice No:11/98

EXAMINATION SYSTEM FOR MARINE ENGINEER OFFICERS

The new examination rules for engineers will come into force from 1st August 1998 and will supersede the existing rules called the Merchant Shipping (Examination of Engineer Officers in the Merchant Navy) Rules, 1989, and as amended in 1994, referred to as the old rules.

These new rules are called the Merchant Shipping (Standards of Training Certification and Watchkeeping for Seafarers) Rules, 1998. The objective of these rules is to give full effect to the provisions of International Convention on Training, Certification and Watchkeeping for Seafarers, 1978 as amended on the 7th day of July, 1995 and has entered into force on the 1st day of February, 1997. The new rules are applicable to those commencing their initial marine engineering training on or after the date of these rules coming into force. All such initial training programmes and subsequent qualifying sea service at all levels will be well structured and required to be assessed and suitably endorsed by qualified trainers and assessors in the approved Training and Assessment Record Books issued to the candidates.

The Chief Engineer Officers and the Second Engineer Officers are required to be such qualified training and assessment officers for the part of training imparted on board including the qualifying sea service. Although the grades of certificates will remain the same as in the old rules, the syllabuses and the subjects for examinations in the new rules have changed to accommodate "function wise" approach.

Validity of the M.E.O. Class IV, M.E.O. Class II and M.E.O. Class I Certificates of Competency issued under the old rules will expire on 31st January 2002. Holders of each such Certificate of Competency will be required to upgrade their Certificates by undergoing an upgradation course and subsequent

examination for validity beyond this date.

Some salient features of the new rules are given below for information.

Marine Engineer Officer Class IV Examination

In the old rules, for award of M.E.O. Class IV Certificate of Competency, a candidate is required to obtain a pass or exemption in M.E.O. Class II part 'A' examination and then render qualifying sea service for six months, of which at least four months shall comprise watch-keeping on the main propulsion machinery of a ship of not less than 350 kilowatt registered power. The candidate then has to obtain a pass in oral examination conducted at the MMDs.

In the new rules, for award of M.E.O. Class IV Certificate of Competency, a candidate is required to obtain a pass or exemption in M.E.O. Class IV part 'A' examination and then render qualifying sea service for six months, of which at least four months shall comprise watch-keeping on the main propulsion machinery of not less than 750 kilowatt registered power. The candidate then has to obtain a pass in M.E.O. Class IV Part 'B' examination. There will be four written papers in M.E.O. Class IV Part 'A' examination, similar to those in the present M.E.O. Class II Part 'A' examination. There will be six written papers followed by orals in M.E.O. Class IV Part 'B' examination including those in the present M.E.O. Class II Part 'B' examination.

For eligibility to appear in or to obtain exemption from M.E.O. Class IV Part 'A' examination, a candidate will be required to complete his initial training in an approved training institution. The duration and scope of such training will depend on his entry qualifications.

Holders of the MEO Class IV certificate of Competency issued under the old rules may, at their option,

- a. Upgrade their Certificate of Competency to new MEO Class IV Certificate of Competency, or
- b. Obtain MEO Class II Certificate of Competency (old), or

(c) Obtain MEO Class II Certificate of Competency (new).

Procedure for Upgradation of MEO Class 1V Certificate of Competency (old) to (new)

1. Pass or obtain exemption from MEO Class II Part (A) Examination (old) if not already done so;
2. Attend 3 month approved preparatory course;
3. Pass the following six subjects under the four functions as detailed hereunder :

Function: Marine Engineering at operational level.

1. Marine Engineering Knowledge (General) (One paper of 3 hours)
2. Marine Engineering Knowledge (Motor or Steam) (One paper of 3 hours)

Function: Maintenance & Repair at operational level.

3. Marine Engineering Practice (one paper of 3 hours)
- Function: Electrical, Electronics and Control Engineering at operational level.

4. Marine Electro technology (one paper of 3 hours)

Function : Controlling operation of ship and care for persons on board at operational level.

5. Ship Construction & Stability (one paper of 3 hours)

6. Ship's Safety & Environmental protection (one paper of 2 hours)

and oral examination covering all the above functions.

Procedure for obtaining MEO Class II Certificate of Competency (old)

1. Pass or obtain exemption from MEO Class II Part (A) Examination (old) if not already done so;
2. Qualifying sea service for twenty one months (remission for three months for those who have commenced their qualifying sea service after obtaining pass or exemption in Class II Part A Examination (old) ;
3. Attend 3 month approved preparatory course;
4. Pass the following four subjects under the three Sections as detailed hereunder : -

Section 1

Electrotechnology (one paper of 3 hours).

Section 2

Naval Architecture (one paper of 3 hours).

Section 3

Engineering Knowledge (General) (one paper of 3 hours).

Engineering Knowledge (Motor) or (Steam) (one paper of 3 hours).

and oral examination covering all the four subjects.

Those who have already obtained pass in any of the Sections mentioned above are exempted from appearing in that Section again.

Procedure for obtaining MEO Class II Certificate of Competency (new)

1. Pass or obtain exemption from MEO Class II Part (A) Examination (new) in the following two subjects under the function as detailed hereunder :
PART "A"
Function: Marine Engineering at management level.
 1. Mechanics and Hydromechanics (one paper of 3 hours)
 2. Thermodynamics and Heat Transmission (one paper of 3 hours).Qualifying sea service for twenty one months (remission for three months for those who have commenced their qualifying sea service after obtaining pass or exemption in Class II Part A Examination (old) ;
Attend 3 month approved preparatory course;
Pass the following six subjects under the four functions as detailed hereunder:

Function: Marine Engineering at Management level.

1. Marine Engineering Knowledge (General) (One paper of 3 hours)
2. Marine Engineering Knowledge (Motor or Steam)(One paper of 3 hours)

Function: Maintenance & Repair at Management level.

3. Marine Engineering Practice (one paper of 3 hours)

Function: Electrical, Electronics and Control Engineering at Management level.

4. Marine Electro technology (one paper of 3 hours)

Function : Controlling operation of ship and care for persons on board at Management level.

5. Naval Architecture (one paper of 3 hours)

Ship's Safety, Environmental protection & Personnel Care (one paper of 2 hours)

and oral Examination covering all the above functions.

Those candidates who have commenced their initial marine engineering training before the new examination rules come into force and have not undergone structured training assessed and suitably endorsed by qualified trainers and assessors in the approved Training and Assessment Record Books will continue to be examined for award of M.E.O. Class IV Certificate of Competency under the old rules.

Marine Engineer Officer Class H Examination

In the old rules, for award of M.E.O. Class II Certificate of Competency, a candidate is required to render qualifying sea service for twenty-one months and obtain a pass in the said examination comprising of Part 'A' and Part 'B'. Remission of three months from qualifying sea service is granted to those who pass M.E.O. Class II Part 'A' examination before commencing qualifying sea service or hold qualifications affording full exemption from appearing in the said Part 'A' examination.

In the new rules, for award of M.E.O. Class II Certificate of Competency, a candidate is required to render qualifying sea service for twelve months, of which at least nine months shall be watch-keeping on the main propulsion machinery of a ship, of not less than 750 kilowatt registered power and then obtain a pass in M.E.O. Class II Part 'B' examination. He may, at his option, obtain a pass or an exemption from M.E.O. Class II Part 'A' examination before or after commencing his qualifying sea service but no remission from qualifying sea service will be granted. There will be two written papers in M.E.O. Class II Part 'A' examination, and six written papers followed by orals in M.E.O. Class II Part 'B' examination.

Holders of the present MEO Class 11 certificate of Competency may, at their

- a. Upgrade their Certificate of Competency , or
- b. Appear in MEO Class I Certificate of Competency examination (old), or
- c. Appear in MEO Class I Certificate of Competency (new).

Procedure for Upgradation of MEO Class II Certificate of Competency (old) to (New)

1. Pass or obtain exemption from MEO Class I Part (A) Examination (old) if not already done so;
2. Attend 3 month approved preparatory course;
3. Pass the following six subjects under the four functions as detailed hereunder:

Function: Marine Engineering at Management level.

1. Marine Engineering Knowledge (General) (One paper of 3 hours)
2. Marine Engineering Knowledge (Motor or Steam) (One paper of 3 hours)

Function: Maintenance & Repair at Management level.

3. Marine Engineering Practice (one paper of 3 hours)

Function: Electrical, Electronics and Control Engineering at Management level.

4. Marine Electro technology (one paper of 3 hours)

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

5. Naval Architecture (one paper of 3 hours)

6. Ship's Safety, Environmental protection & Personnel Care (one paper of 2 hours)

and oral Examination covering all the above functions.

Procedure for obtaining MEO Class 1 Certificate of Competency (old)

1. Pass or obtain exemption from MEO Class I Part (A) Examination (old) if not already done so;
2. Qualifying sea service for twenty one months (remission for three months for those who have commenced their qualifying sea service after obtaining pass or exemption in Class I Part A Examination (old) ;
3. Attend 3 month approved preparatory course;

4. Pass the following four subjects under the three Sections as detailed hereunder:

Section 1

Electrotechnology (one paper of 3 hours).

Section 2

Naval Architecture (one paper of 3 hours).

Section 3

Engineering Knowledge (General) (one paper of 3 hours).

Engineering Knowledge (Motor) or (Steam) (one paper of 3 hours).

and oral Examination covering all the four subjects.

Those who have already obtained pass in any of the Sections mentioned above are exempted from appearing in that Section again.

Procedure for appearing in MEO Class 1 Certificate of Competency examination (new)

1. Pass or obtain exemption from MEO Class I Part (A) Examination (new) in the following two subjects under the function as detailed hereunder :
PART "A"
Function: Marine Engineering at management level.
 1. Mechanics and Hydromechanics (one paper of 3 hours)
 2. Thermodynamics and Heat Transmission (one paper of 3 hours)Qualifying sea service for twenty one months (remission for three months for those who have commenced their qualifying sea service after obtaining pass or exemption in Class I Part A Examination (old) ;
 2. Attend 3 month approved preparatory course;
 3. Pass the following seven subjects under the four functions as detailed hereunder :

PART "B"

Function: Marine Engineering at Management level.

1. Marine Engineering Knowledge (General) (One paper of 3 hours)
2. Marine Engineering Knowledge (Motor or Steam) (One paper of 3 hours)

Function: Maintenance & Repair at Management level.

3. Marine Engineering Practice (one paper of 3 hours)

Function: Electrical, Electronics and Control Engineering at Management level.

4. Marine Electro technology (one paper of 3 hours)

Function: Controlling operation of ship and care for persons on board at Management level.

5. Ship Construction & Stability (one paper of 3 hours)

6. Ship's Safety, Environmental protection & Personnel Care. (one paper of 2 hours)

Attend approved course on Engineering Management and pass the following examination:

7. Engineering Management (one paper of 3 hours)

and oral Examination covering all the above functions.

Marine Engineer Officer Class I Examination

In the old rules, for award of M.E.O. Class I Certificate of Competency, a candidate is required to render qualifying sea service for twenty-one months, of which at least nine months shall be as Officer-in-Charge of an Engineering Watch in a ship of not less than 3000 kilowatt registered power as holder of M.E.O. Class II Certificate of Competency. The candidate may also render qualifying sea service as a Chief Engineer Officer in charge of an Engineering Watch in a ship as holder of a M.E.O. Class II (Motor) Certificate of Competency with Service Endorsement. The remaining period may be as in-charge of a watch in a ship of not less than 1500 kilowatt registered power. Remission of three months from qualifying sea service is granted to those who pass M.E.O. Class I Part 'A' examination before commencing qualifying sea service or hold qualifications affording full exemption from appearing in the

said Part 'A' examination.

In the new rules, for award of M.E.O. Class I Certificate of Competency, a candidate is required to render qualifying sea service for a further period of eighteen months while holding M.E.O. Class II Certificate of Competency, totaling thirty months after obtaining M.E.O. Class IV Certificate of Competency, of which at least twelve months shall be as Officer-in-Charge of watch on the main propulsion machinery of a ship of not less than 3000 kilowatt registered power. The candidate will be required to attend approved course on Engineering Management and then obtain a pass in M.E.O. Class I examination. There will be the following written paper followed by orals.

Engineering Management (one paper of 3 hours)

Holders of the present MEO Class I certificate of Competency may upgrade their Certificate of Competency by appearing in the above examination of MEO Class I Certificate of Competency (new).

General

Qualifying sea service in motor ships will be counted for a Certificate of Competency (Motor) and in a Steamship for a Certificate of Competency (Steam).

A candidate will have an option either to appear in all the oral examinations of a particular grade of Certificate of Competency at one time or in the orals separately for each function.

Each of the above examinations will be preceded by an approved Simulator Training and Preparatory Course. The duration of preparatory course for appearing in M.E.O. Class IV examination has been increased to three months from the present duration of one month.

The details of examinations under the new rules showing training requirements at various levels are given in the flow diagrams.