



ပြည်ထောင်စုသမ္မတ မြန်မာနိုင်ငံတော် အစိုးရ
 ပို့ဆောင်ရေးဝန်ကြီးဌာန
 ရေကြောင်းပို့ဆောင်ရေးညွှန်ကြားမှုဦးစီးဌာန

အမိန့်ကြော်ငြာစာအမှတ် ၁ / ၂၀၁၄

၁၃၇၅ ခုနှစ်၊ ပြာသိုလကွယ်နေ့
 (၂၀၁၄ ခုနှစ်၊ ဇန်နဝါရီလ ၃၀ ရက်)

**ရေယာဉ်မှူးများ၊ ရေကြောင်းအရာရှိများနှင့် ရေကြောင်းအင်ဂျင်နီယာအရာရှိများ၏
 ကျွမ်းကျင်မှု လက်မှတ်များအတွက် လေ့ကျင့်သင်ကြားခြင်းနှင့် စာမေးပွဲစစ်ဆေးခြင်းဆိုင်ရာ
 လမ်းညွှန်ချက်များကို သတ်မှတ်ခြင်း**

၁။ ရေကြောင်းပို့ဆောင်ရေးညွှန်ကြားမှုဦးစီးဌာနသည် မြန်မာနိုင်ငံကုန်သည်သင်္ဘောအက်ဥပဒေ ပုဒ်မ ၂၉၄၊ ပုဒ်မခွဲ(ခ)နှင့် ရေယာဉ်မှူး၊ အရာရှိများနှင့် သင်္ဘောသားများ၏ ကျွမ်းကျင်မှုနှင့် တတ်ကျွမ်းမှုလက်မှတ်များ ထုတ်ပေးခြင်းဆိုင်ရာ နည်းဥပဒေများ၏ အခန်း (၄)ပါ ပြဋ္ဌာန်းချက်များ အရ အပ်နှင်းထားသော လုပ်ပိုင်ခွင့်ကို ကျင့်သုံး၍ ပို့ဆောင်ရေးဝန်ကြီးဌာန၏ သဘောတူညီချက်ဖြင့် ဤအမိန့်ကြော်ငြာစာကို ထုတ်ပြန်လိုက်သည်။

၂။ ရေယာဉ်မှူးများ၊ ရေကြောင်းအရာရှိများနှင့် ရေကြောင်းအင်ဂျင်နီယာ အရာရှိများ၏ အောက်ပါ ကျွမ်းကျင်မှုလက်မှတ်များအတွက် လေ့ကျင့်သင်ကြားခြင်းနှင့် စာမေးပွဲစစ်ဆေးခြင်းဆိုင်ရာ လမ်းညွှန်ချက်များကို International Convention on Standards of Training, Certification and Watchkeeping for Seafarers (STCW), 1978 as amended including 2010 Manila Amendments နှင့်အညီ ယှဉ်တွဲပါ နောက်ဆက်တွဲများတွင် ဖော်ပြထားသည့်အတိုင်း သတ်မှတ်လိုက်သည် -

- (က) ကုန်းပတ်အရာရှိ အဆင့် ၁ ကျွမ်းကျင်မှုလက်မှတ်
 (Deck Officer Class I Certificate of Competency)
 အတွက် လေ့ကျင့်သင်ကြားခြင်းနှင့် စာမေးပွဲစစ်ဆေးခြင်း
 ဆိုင်ရာ လမ်းညွှန်ချက်များ - ANNEX (A)
- (ခ) ကုန်းပတ်အရာရှိ အဆင့် ၂ ကျွမ်းကျင်မှု လက်မှတ်
 (Deck Officer Class II Certificate of Competency)
 အတွက် လေ့ကျင့်သင်ကြားခြင်းနှင့် စာမေးပွဲစစ်ဆေးခြင်း
 ဆိုင်ရာ လမ်းညွှန်ချက်များ - ANNEX (B)
- (ဂ) ကုန်းပတ်အရာရှိ အဆင့် ၃ ကျွမ်းကျင်မှု လက်မှတ်
 (Deck Officer Class III Certificate of Competency)
 အတွက် လေ့ကျင့်သင်ကြားခြင်းနှင့် စာမေးပွဲစစ်ဆေးခြင်း
 ဆိုင်ရာ လမ်းညွှန်ချက်များ - ANNEX (C)
- (ဃ) ကုန်းပတ် အရာရှိအဆင့် ၄ ကျွမ်းကျင်မှုလက်မှတ်
 (Deck Officer Class IV Certificate of Competency)
 အတွက် လေ့ကျင့်သင်ကြားခြင်းနှင့် စာမေးပွဲစစ်ဆေးခြင်း
 ဆိုင်ရာ လမ်းညွှန်ချက်များ - ANNEX (D)

- (င) ကုန်းပတ်အရာရှိ အဆင့် ၅ ကျွမ်းကျင်မှုလက်မှတ် (Deck Officer Class V Certificate of Competency) အတွက် လေ့ကျင့်သင်ကြားခြင်းနှင့် စာမေးပွဲစစ်ဆေးခြင်းဆိုင်ရာ လမ်းညွှန်ချက်များ - ANNEX (E)
- (စ) ရေကြောင်းအင်ဂျင်နီယာအရာရှိအဆင့် ၁ ကျွမ်းကျင်မှုလက်မှတ် (Marine Engineer Officer Class I Certificate of Competency) အတွက် လေ့ကျင့်သင်ကြားခြင်းနှင့် စာမေးပွဲစစ်ဆေးခြင်းဆိုင်ရာ လမ်းညွှန်ချက်များ - ANNEX (F)
- (ဆ) ရေကြောင်းအင်ဂျင်နီယာအရာရှိအဆင့် ၂ ကျွမ်းကျင်မှုလက်မှတ် (Marine Engineer Officer Class II Certificate of Competency) အတွက် လေ့ကျင့်သင်ကြားခြင်းနှင့် စာမေးပွဲစစ်ဆေးခြင်းဆိုင်ရာ လမ်းညွှန်ချက်များ - ANNEX (G)
- (ဇ) ရေကြောင်းအင်ဂျင်နီယာအရာရှိအဆင့် ၃ ကျွမ်းကျင်မှုလက်မှတ် (Marine Engineer Officer Class III Certificate of Competency) အတွက် လေ့ကျင့်သင်ကြားခြင်းနှင့် စာမေးပွဲစစ်ဆေးခြင်းဆိုင်ရာ လမ်းညွှန်ချက်များ - ANNEX (H)
- (ဈ) ရေကြောင်းအင်ဂျင်နီယာအရာရှိအဆင့် ၄ ကျွမ်းကျင်မှု လက်မှတ် (Marine Engineer Officer Class IV Certificate of Competency) အတွက် လေ့ကျင့်သင်ကြားခြင်းနှင့် စာမေးပွဲစစ်ဆေးခြင်းဆိုင်ရာ လမ်းညွှန်ချက်များ - ANNEX (I)
- (ည) ရေကြောင်းအင်ဂျင်နီယာအရာရှိအဆင့် ၅ ကျွမ်းကျင်မှုလက်မှတ် (Marine Engineer Officer Class V Certificate of Competency) အတွက် လေ့ကျင့်သင်ကြားခြင်းနှင့် စာမေးပွဲစစ်ဆေးခြင်းဆိုင်ရာ လမ်းညွှန်ချက်များ - ANNEX (J)
- (ဋ) လျှပ်စစ်နည်းပညာအရာရှိ ကျွမ်းကျင်မှုလက်မှတ် (Electro-Technical Officer Certificate of Competency) အတွက် လေ့ကျင့်သင်ကြားခြင်းနှင့် စာမေးပွဲစစ်ဆေးခြင်းဆိုင်ရာ လမ်းညွှန်ချက်များ - ANNEX (K)

၃။ ၁၄-၉-၂၀၁၂ ရက်နေ့တွင် ထုတ်ပြန်ခဲ့သော အမိန့်ကြော်ငြာစာအမှတ် (၂/၂၀၁၂) အား ဤအမိန့်ကြော်ငြာစာဖြင့် လွှမ်းမိုးပယ်ဖျက်လိုက်သည်။

(ပုံ)မောင်မောင်ဦး
 ညွှန်ကြားရေးမှူးချုပ်
 ရေကြောင်းပို့ဆောင်ရေးညွှန်ကြားမှုဦးစီးဌာန
 ပို့ဆောင်ရေးဝန်ကြီးဌာန

ANNEX (A)

Guidance of Maritime Education, Training and Examination for Deck Officer Class I (Master on a seagoing ship of 3,000 gross tonnage or more, Unlimited Voyage) Certificate of Competency. (STCW Convention 1978, as amended, Regulation II/2)

The Examination for certification of **Deck Officer Class I** (Master on a seagoing ship of 3,000 gross tonnage or more, unlimited voyage) consists of Oral Examination only.

1. Every candidate for certification shall:
 - (A) have approved seagoing service of not less than 12 months as Chief Mate on ships of 3,000 gross tonnage or more, unlimited voyage or not less than 24 months as an officer in charge of a navigational watch on ships of 500 gross tonnage or more while holding Deck Officer Class II Certificate of Competency;
 - (B) have successfully completed the continuous Assessment for the following Nautical Subjects during the period of the approved Deck Officer Class I Refresher Course (12-weeks) at the respective Approved Training Centres:
 - (1) Navigation;
 - (2) Maritime Legislative Requirements; and
 - (3) Cargo Handling, Stability and Shipboard Operations.
2. The candidates who have successfully completed the approved Refresher Course shall continue the Deck Officer Class I Oral Examination which shall be conducted by the Department of Marine Administration (DMA).
3. The candidates shall successfully completed the Ship Manoeuvring and Handling Simulator Course after passing the Oral Examination:
4. The Department of Marine Administration shall issue the Deck Officer Class I Certificate of Competency to the candidates who have successfully completed the Oral Examination as well as holding the respective valid Certificates of Proficiency which are required by the STCW Convention Regulations and Codes.

MODE AND MARKING SYSTEM FOR DECK OFFICER CLASS I CoC EXAMINATION

| No. | Subjects | Mode of Examination | Given marks | Passed marks |
|------------|-------------------|----------------------------|--------------------|---------------------|
| 1. | Nautical subjects | Oral | 100 | 90 |

**SUMMARY OF TEACHING HOURS FOR
DECK OFFICER CLASS I CERTIFICATE OF COMPETENCY COURSE**

| No. | Subjects | Examination | Teaching hours | Total weeks |
|-----------------------------|---|-------------|----------------|----------------------------|
| 1. | Navigation | Assessment | 8 | 30 Hours / week |
| 2. | Cargo Handling, Stability and Shipboard Operations (Cargo Handling & Stowage) | Assessment | 60 | |
| 3. | Cargo Handling, Stability and Shipboard Operations (Ship Construction & Stability) | Assessment | 48 | |
| 4. | Maritime Legislative Requirements | Assessment | 72 | |
| 5. | Cargo Handling, Stability and Shipboard Operations (Ship Safety, Security, Damage Control & Management of personnel) | Assessment | 60 | |
| 6. | Navigation emergencies / Handling / COLREG'72 & Oral | Assessment | 112 | |
| Total Teaching Hours | | | 360 | (12) weeks |

ANNEX (B)

Guidance of Maritime Education, Training and Examination for Deck Officer Class II (Chief Mate on a seagoing ship of 3,000 gross tonnage or more, Unlimited Voyage) Certificate of Competency. (STCW Convention 1978, as amended, Regulation II/2)

The examination for certification of **Deck Officer Class II** (Chief Mate on a seagoing ship of 3,000 gross tonnage or more, unlimited voyage) consists of Written and Oral parts.

1. The Examination shall be conducted with the continuous assessment system during the education and training period.
2. The Written Examination shall be held at the University and the Approved Training Centers in accordance with the Regulation I/6 of the STCW Convention 1978, as amended.
3. The Written Examination consists of the following Nautical subjects:
 - (A) Navigation;
 - (B) Maritime Legislative Requirements;
 - (C) Cargo Handling, Stability and Shipboard Operations;
 - (D) Magnetic and Gyro Compass;
 - (E) Engineering, Electricity and Electronic Navigational Aids; and
 - (F) Meteorology.
4. The candidates holding BSc.Hons. (Nautical Science) degree from the Myanmar Maritime University (MMU) for certification shall:
 - (A) have successfully completed the Written Examination for the following Nautical subjects during their education and training period at the MMU:
 - (1) Magnetic and Gyro Compass;
 - (2) Engineering, Electricity and Electronic Navigational Aids; and
 - (3) Meteorology.(The Written Examination is administered, supervised and monitored by the Department of Marine Administration.)
 - (B) hold the Deck Officer Class III Certificate of Competency;
 - (C) have approved seagoing service of not less than 12 months as an officer in charge of a navigational watch on ships of 500 gross tonnage or more;
 - (D) have successfully completed the Assessment for the following Nautical subjects during the period of the approved Deck Officer Class I & II combined Course (18-weeks) at the respective Approved Training Centres:
 - (1) Navigation;
 - (2) Maritime Legislative Requirements; and
 - (3) Cargo Handling, Stability and Shipboard Operations.
5. **Every candidate** except the candidates holding BSc.Hons. (Nautical Science) degree for certification shall:
 - (A) hold the Deck Officer Class III Certificate of Competency;
 - (B) have approved seagoing service of not less than 12 months as an officer in charge of a navigational watch on ships of 500 gross tonnage or more;
 - (C) have successfully completed the Written Examination for the following Nautical Subjects during the period of the approved Deck Officer Class I & II combined Course (24- weeks) at the respective Approved Training Centres:
 - (1) Magnetic and Gyro Compass;
 - (2) Engineering, Electricity and Electronic Navigational Aids; and
 - (3) Meteorology.(The Written Examination is administered, supervised and monitored by the Department of Marine Administration)
 - (D) The candidates who have failed in any subject of the Written Examination conducted by the Training Institutions and the Approved Training Centers shall have to attempt for the failed subject/s only in the subsequent Written Examination/s according to the respective semester.

- (E) have successfully completed the continuous Assessment for the following Nautical Subjects at the respective Approved Training Centres:
- (1) Navigation;
 - (2) Maritime Legislative Requirements; and
 - (3) Cargo Handling, Stability and Shipboard Operations.
6. After completion Assessment, the qualified candidates have to sit the Written Examination for the following Nautical Subjects conducted by the Board of Examiner (BoE) (The Officials from the Department of Marine Administration, the Myanmar Maritime University and the Myanmar Mercantile Marine College) designated by the Ministry of Transport at pre-determined place:
- (A) Navigation;
 - (B) Maritime Legislative Requirements; and
 - (C) Cargo Handling, Stability and Shipboard Operations.
7. The candidates who have failed in any subject of the Written Examination conducted by (BoE) shall have to attempt for the failed subject/s only in the subsequent Written examination/s and shall be successfully completed all subjects within 1 year, which shall be counted at the beginning date of attempt of the Written Examination conduct by (BoE), otherwise shall have to attempt for the overdue subjects.
8. The candidates who haven't successfully completed Written Examination prior to 30th June 2013 shall have successfully complete the Written Examination accordance with Directive (2/2013) notified by Department of Marine Administration.
9. The candidates who have successfully completed the Written Examination have to continue the Deck Officer Class II Oral Examination which shall be conducted by the Department of Marine Administration (DMA).
10. The candidates shall successfully complete the Vessel Resource Management (VRM) Course after passing the Oral Examination:
11. The Department of Marine Administration shall issue Deck Officer Class II Certificate of Competency to the candidates who have successfully completed the Oral Examination as well as holding the respective valid Certificates of Proficiency which are required by the STCW Convention Regulations and Codes.

**MODE AND MARKING SYSTEM FOR DECK OFFICER CLASS I & II CoC
COMBINED EXAMINATION**

| No. | Subject | Mode of Examination | Duration of Examination | Maximum marks | Pass marks |
|-----|--|---------------------|-------------------------|---------------|------------|
| 1. | Magnetic and Gyro Compass | Written | 2 Hours | 100 | 50 |
| 2. | Engineering, Electricity and Electronic Navigational Aids | Written | 3 Hours | 100 | 50 |
| 3. | Meteorology | Written | 2 Hours | 100 | 50 |
| 4. | Navigation | Written (BoE) | 3 Hours | 100 | 70 |
| 5. | Maritime Legislative Requirements | Written (BoE) | 3 Hours | 100 | 50 |
| 6. | Cargo Handling, Stability and Shipboard Operations | Written (BoE) | 3 Hours | 100 | 60 |

**SUMMARY OF TEACHING HOURS FOR
DECK OFFICER CLASS I & II CoC COMBINED COURSE**

| Semester | No. | Subjects | Teaching hours | Total weeks |
|-----------------------------------|-----------------------------|---|----------------|------------------------|
| I | 1. | Navigation (Position determination in sea condition) | 60 | 30 Hours / Week |
| | 2. | (ENA) (Electronic Navigational Aids) | 24 | |
| | 3. | Meteorology | 36 | |
| | 4. | Cargo Handling, Stability and Shipboard Operations (Cargo Handling & Stowage) | 72 | |
| | 5. | (EK) (Remote Control & Engineering System) | 60 | |
| | 6. | Cargo Handling, Stability and Shipboard Operations (Ship Construction & Stability) | 48 | |
| | 7. | Magnetic and Gyro Compass (Compass) | 24 | |
| | 8. | COLREG'72 & Oral | 36 | |
| | Total Teaching Hours | | | 360 |
| II | 1. | Navigation (Voyage planning, Routeing & Reporting) | 36 | 30 Hours / Week |
| | 2. | Cargo Handling, Stability and Shipboard Operations (Ship Safety, Security, Damage Control & Management of personnel) | 24 | |
| | 3. | Cargo Handling, Stability and Shipboard Operations (Cargo Handling & Stowage) | 60 | |
| | 4. | Cargo Handling, Stability and Shipboard Operations (Stability) | 72 | |
| | 5. | Maritime Legislative Requirements | 48 | |
| | 6. | Cargo Handling, Stability and Shipboard Operations (Ship Safety, Security, Damage Control & Management of personnel) | 36 | |
| | 7. | COLREG'72 & Oral | 84 | |
| | Total Teaching Hours | | | 360 |
| Grand Total Teaching Hours | | | 720 | (24) weeks |

Guidance of Maritime Education, Training and Examination for Deck Officer Class III (Officer in Charge of a Navigational Watch, OOW, on a seagoing ship of 500 gross tonnage or more) Certificate of Competency. (STCW Convention 1978, as amended, Regulation II/1)

The Examination for certification of **Deck Officer Class III** (Officer in charge of a navigational watch on a seagoing ship of 500 gross tonnage or more) consists of Written, Oral and visual Signaling parts.

1. The Examination shall be conducted with the continuous assessment system during the approved training course.
2. The Written Examination shall be held at the Approved Training Institutions and Approved Training Centres in accordance with the Regulation I/6 of the STCW Convention 1978, as amended.
3. The Written Examination consists of the following Supporting-knowledge Subjects and Nautical Subjects:
 - (A) Supporting-knowledge Subjects are:
 - (1) English;
 - (2) Mathematics; and
 - (3) Physical Science.
 - (B) Nautical Subjects are:
 - (1) Practical Navigation;
 - (2) General Ship Knowledge;
 - (3) Principle of Navigation;
 - (4) Chart Work;
 - (5) Electricity, Magnetism & Gyro Compass; and
 - (6) Meteorology.
4. The candidates holding BSc. Hons. (Nautical Science) degree from the Myanmar Maritime University (MMU) shall:
 - (A) have successfully completed the Written Examination for the following Supporting-knowledge Subjects and Nautical Subjects during their education and training period at the MMU:
 - (1) Supporting-knowledge Subjects are:
 - (a) English;
 - (b) Mathematics; and
 - (c) Physical Science;
 - (2) Nautical Subjects are:
 - (a) Principle of Navigation;
 - (b) Chart Work;
 - (c) Electricity, Magnetism & Gyro Compass; and
 - (d) Meteorology.

(The Written Examination is administered, supervised and monitored by the Department of Marine Administration.)
 - (B) The candidates who have failed in any subject/s of the Written Examination conducted by the MMU shall have to attempt for the failed subject/s only in the subsequent Written Examination/s according to the respective semester.
 - (C) have successfully completed the Written Examination for the following Nautical Subjects at Final academic year conducted by the Board of Examiner (BoE) (Officials from the Department of Marine Administration, the Myanmar Maritime University and the Myanmar Mercantile Marine College) designated by the Ministry of Transport at the MMU:
 - (1) Practical Navigation; and
 - (2) General Ship Knowledge (GSK).

- (D) The candidates who have failed in any subject of the Written Examination conducted by (BoE) shall have to attempt for the failed subject/s only in the subsequent Written examination/s and shall be successfully completed all subjects within 1 year, which shall be counted at the beginning date of attempt of the Written Examination conducted by (BoE), otherwise shall have to attempt for the overdue subjects.
 - (E) have approved seagoing service of not less than 12 months (have performed for Bridge Watch-keeping duty under the supervision of master or qualified officer not less than 6 months) with the approved Training Record Book (TRB).
5. The candidates holding the Diploma in Nautical Studies from the Myanmar Mercantile Marine College (MMMC) shall:
- (A) have successfully completed the Written Examination for the following Supporting-knowledge Subjects and Nautical Subjects during their education and training period at the MMMC:
 - (1) Supporting-knowledge Subjects are:
 - (a) English;
 - (b) Mathematics; and
 - (c) Physical Science.
 - (2) Nautical Subjects are:
 - (a) Principle of Navigation;
 - (b) Chart Work;
 - (c) Electricity, Magnetism & Gyro Compass; and
 - (d) Meteorology.

(The Written Examination is administered, supervised and monitored by the Department of Marine Administration.)
 - (B) The candidates who have failed in any subject of the Written Examination conducted by the MMMC shall have to attempt for the failed subject/s only in the subsequent Written Examination/s according to the respective semester.
 - (C) have successfully completed the Assessment for the following Nautical Subjects during their education and training period:
 - (1) Practical Navigation; and
 - (2) General Ship Knowledge (GSK).
 - (D) have approved seagoing service of not less than 18 months (have performed for Bridge Watch-keeping duty under the supervision of master or qualified officer not less than 6 months) with the approved Training Record Book (TRB).
 - (E) have successfully completed the Written Examination for the following Nautical Subjects conducted by the Board of Examiner (BoE) (Officials from the Department of Marine Administration, the Myanmar Maritime University and the Myanmar Mercantile Marine College) designated by the Ministry of Transport at pre-determined place:
 - (1) Practical Navigation; and
 - (2) General Ship Knowledge (GSK).
 - (F) The candidates who have failed in any subject of the Written Examination conducted by (BoE) shall have to attempt for the failed subject/s only in the subsequent Written examination/s and shall be successfully completed all subjects within 1 year, which shall be counted at the beginning date of attempt of the Written Examination conducted by (BoE), otherwise shall have to attempt for the overdue subjects.
6. The candidates who are graduated with the BSc. Hons. (Nautical Science) degree from (MMU) or the Diploma in Nautical Studies from (MMMC) prior to this Notification or the candidates who have successfully completed the Mercantile Marine Nautical Cadet Training Course from (IMT) and the candidates who haven't successfully completed Written Examination prior to 30th June 2013 shall:
- (A) have following approved seagoing service:
 - (1) for the candidates from (MMU) have approved seagoing service of not less than 12 months (have performed for Bridge Watch-keeping duty under the

- supervision of master or qualified officer not less than 6 months) with the approved Training Record Book (TRB).
- (2) for the candidates from (MMMC) have approved seagoing service of not less than 24 months (have performed for Bridge Watch-keeping duty under the supervision of master or qualified officer not less than 6 months) with the approved Training Record Book (TRB).
 - (3) for the candidates from (IMT) have approved seagoing service of not less than 27 months (have performed for Bridge Watch-keeping duty under the supervision of master or qualified officer not less than 6 months) with the approved Training Record Book (TRB).
- (B) have successfully complete the Written Examination accordance with Directive (2/2013) notified by Department of Marine Administration.
7. The candidates from **Naval / Ex-Naval Officers** shall:
- (A) have following approved seagoing service have approved seagoing service of not less than 36 months and minimum sea service 3 months on merchant vessel.
 - (B) have successfully completed the Written Examination for the following Nautical Subjects during the period of the approved Deck Officer Class III Certificate of Competency Course (30 weeks) at the respective Approved Training Centres.
 - (1) Principle of Navigation;
 - (2) Chart Work;
 - (3) Electricity, Magnetism & Gyro Compass; and
 - (4) Meteorology.

(The Written Examination is administered, supervised and monitored by the Department of Marine Administration.)
 - (C) The candidates who have failed in any subject of the Written Examination conducted by the Training Institutions and the Approved Training Centers shall have to attempt for the failed subject/s only in the subsequent Written Examination/s according to the respective semester.
 - (D) have successfully completed the continuous Assessment for the following Nautical Subjects during their education and training period at the respective Approved Training Centres:
 - (1) Practical Navigation; and
 - (2) General Ship Knowledge (GSK).
 - (E) After successfully completed the assessment, the candidates have to sit the Written Examination for the following Nautical Subjects conducted by the Board of Examiner (BoE) (Officials from the Department of Marine Administration, the Myanmar Maritime University and the Myanmar Mercantile Marine College) designated by the Ministry of Transport at pre-determined place:
 - (1) Practical Navigation; and
 - (2) General Ship Knowledge (GSK).
 - (F) The candidates who have failed in any subject of the Written Examination conducted by (BoE) shall have to attempt for the failed subject/s only in the subsequent Written Examination/s and shall be successfully completed all subjects within 1 year, which shall be counted at the beginning date of attempt of the Written Examination conducted by (BoE), otherwise shall have to attempt for the overdue subjects..
8. The candidates having passed the Basic Educational High school (**BEHS**) Examination and the candidates having accepted to appear Examination prior to this Notification shall:
- (A) have approved seagoing service of not less than 36 months (have performed for Bridge Watch-keeping duty under the supervision of master or qualified officer not less than 6 months).
 - (B) have successfully completed the Written Examination for the following Supporting-knowledge Subjects and Nautical Subjects during the period of the approved Deck Officer Class III Course (40-weeks) at the respective Approved Training Centres:
 - (1) Supporting Knowledge Subjects
 - (a) English;

- (b) Mathematics; and
 - (c) Physical Science.
 - (2) Nautical Subjects
 - (a) Principle of Navigation;
 - (b) Chart Work;
 - (c) Electricity, Magnetism & Gyro Compass; and
 - (d) Meteorology.

(The Written Examination is administered, supervised and monitored by the Department of Marine Administration.)
 - (C) The candidates who have failed in any subject of the Written Examination conducted by the Training Institutions and the Approved Training Centers shall have to attempt for the failed subject/s only in the subsequent Written Examination/s according to the respective semester.
 - (D) have successfully completed the continuous Assessment for the following Nautical Subjects during their education and training period at the respective training centers:
 - (1) Practical Navigation; and
 - (2) General Ship Knowledge (GSK).
 - (E) have successfully completed Written Examination for the following Nautical Subjects conducted by the Board of Examiner (BoE) (Officials from the Department of Marine Administration, the Myanmar Maritime University and the Myanmar Mercantile Marine College) designated by the Ministry of Transport at pre-determined place:
 - (1) Practical Navigation; and
 - (2) General Ship Knowledge (GSK).
 - (F) The candidates who have failed in any subject of the Written Examination conducted by (BoE) shall have to attempt for the failed subject/s only in the subsequent Written Examination/s and shall be successfully completed all subjects within 1 year, which shall be counted at the beginning date of attempt of the Written Examination conducted by (BoE), otherwise shall have to attempt for the overdue subjects.
9. The candidates who have successfully completed the Written Examination have to continue the Visual Signalling and Deck Officer Class III Oral Examination conducted by the Department of Marine Administration (DMA).
 10. The candidates who have failed in the Visual Signaling Examination shall have to attempt for the Visual Signaling Examination in the subsequent Visual Signaling Examination/s.
 11. The candidates who have failed in the Oral Examination shall have to attempt for the Oral Examination in the subsequent Oral Examination/s.
 12. The candidates shall successfully completed the following Training Courses after passing the Oral Examination:
 - (A) Radar Observer and Automatic Radar Plotting Aids (APPA) Course;
 - (B) Electronic Chart Display and Information System (ECDIS) Course;
 - (C) General Operator Certificate(GOC) Course; and
 - (D) Bridge Team Management (BTM) Course.
 13. The Department of Marine Administration shall issue Deck Officer Class III Certificate of Competency to the candidates who have successfully completed the Oral Examination as well as holding the respective valid Certificates of Proficiency which are required by the STCW Convention Regulations and Codes.

SUMMARY OF TEACHING HOURS OF DECK OFFICER CLASS III CoC COURSE

| Semester | No. | Subjects | Teaching hours | Total weeks |
|-----------------------------------|-----------------------------|---|----------------|-------------------|
| I | 1. | English | 96 | 30 Hours / Week |
| | 2. | Physical Science | 108 | |
| | 3. | Mathematics | 96 | |
| | 4. | Meteorology | 60 | |
| | Total Teaching Hours | | | 360 |
| II | 1. | Principle of Navigation | 120 | 33 Hours / Week |
| | 2. | Practical Navigation | 48 | |
| | 3. | Chart Work | 60 | |
| | 4. | ENA & Compass | 100 | |
| | 5. | GSK (Seamanship, Cargo Handling & Stowage) | 64 | |
| | 6. | GSK (Stability, Construction & Shipboard Operation) | 64 | |
| | 7. | COLREG '72, Visual Signalling & Oral | 72 | |
| Total Teaching Hours | | | 528 | (16) weeks |
| III | 1. | Practical Navigation | 84 | 30 Hours / Week |
| | 2. | Practical Navigation (Passage Planning) | 60 | |
| | 3. | GSK (Seamanship, Cargo Handling & Stowage) | 72 | |
| | 4. | GSK (Stability, Construction & Shipboard Operation) | 72 | |
| | 5. | COLREG '72, Visual Signalling & Oral | 72 | |
| Total Teaching Hours | | | 360 | (12) weeks |
| Grand Total Teaching Hours | | | 1248 | (40) weeks |

MODE AND MARKING SYSTEM FOR DECK OFFICER CLASS III CoC EXAMINATION

| No. | Subject | Mode of Examination | Duration of Examination | Maximum marks | Pass marks |
|-----|-------------------------|---------------------|-------------------------|---------------|------------|
| 1. | English | Written | 3 Hours | 100 | 50 |
| 2. | Physical Science | Written | 3 Hours | 100 | 50 |
| 3. | Mathematics | Written | 3 Hours | 100 | 50 |
| 4. | Meteorology | Written | 2 Hours | 100 | 50 |
| 5. | Principle of Navigation | Written | 2 Hours | 100 | 50 |
| 6. | ENA & Compass | Written | 3 Hours | 100 | 50 |
| 7. | Chart Work | Written | 2 Hours | 100 | 70 |
| 8. | Practical Navigation | Written (BoE) | 3 Hours | 100 | 70 |
| 9. | GSK | Written (BoE) | 3 Hours | 100 | 60 |

**MODE AND MARKING SYSTEM FOR DECK OFFICER CLASS III
CoC EXAMINATION FOR NAVAL OFFICER**

| No. | Subject | Mode of Examination | Duration of Examination | Maximum marks | Pass marks |
|-----|-------------------------|---------------------|-------------------------|---------------|------------|
| 1. | Meteorology | Written | 2 Hours | 100 | 50 |
| 2. | Principle of Navigation | Written | 2 Hours | 100 | 50 |
| 3. | ENA & Compass | Written | 3 Hours | 100 | 50 |
| 4. | Chart Work | Written | 2 Hours | 100 | 70 |
| 5. | Practical Navigation | Written (BoE) | 3 Hours | 100 | 70 |
| 6. | GSK | Written (BoE) | 3 Hours | 100 | 60 |

**SUMMARY OF TEACHING HOURS OF
DECK OFFICER CLASS III CoC COURSE FOR NAVAL OFFICER**

| Semester | No. | Subjects | Teaching hours | Total weeks |
|-----------------------------------|-----------------------------|---|----------------|------------------------|
| I | 1. | Meteorology | 60 | 33 Hours / Week |
| | 2. | Principle of Navigation | 120 | |
| | 3. | Practical Navigation | 48 | |
| | 4. | Chart Work | 60 | |
| | 5. | ENA & Compass | 100 | |
| | 6. | (GSK) (Seamanship, Cargo Handling & Stowage) | 64 | |
| | 7. | (GSK) (Stability, Construction & Shipboard Operation) | 64 | |
| | 8. | COLREG '72, Visual Signalling & Oral | 72 | |
| | Total Teaching Hours | | | 588 |
| II | 1. | Practical Navigation | 84 | 30 Hours / Week |
| | 2. | Practical Navigation (Passage Planning) | 60 | |
| | 3. | (GSK) (Seamanship, Cargo Handling & Stowage) | 72 | |
| | 4. | (GSK) (Stability, Construction & Shipboard Operation) | 72 | |
| | 5. | COLREG '72, Visual Signalling & Oral | 72 | |
| | Total Teaching Hours | | | 360 |
| Grand Total Teaching Hours | | | 948 | (30) weeks |

ANNEX (D)

Guidance of Maritime Education, Training and Examination for Deck Officer Class IV (Master on a seagoing ships of between 500 and 3,000 gross tonnage engaged on near-coastal voyages) Certificate of Competency. (STCW Convention 1978, as amended, Regulation II/2)

The Examination for certification of **Deck Officer Class IV** (Master on a seagoing ship of between 500 and 3,000 gross tonnage engaged on near-coastal voyages) consists of Oral Examination only.

1. Every candidate for certification shall:
 - (A) hold the Deck Officer Class V Certificate of Competency;
 - (B) have approved seagoing service of not less than 24 months as an officer in charge of a navigational watch; however, this period may be reduced to not less than 12 months if such seagoing service has been served as chief mate on ships of between 500 and 3,000 gross tonnage engaged on near-coastal voyages;
 - (C) have successfully completed the continuous Assessment for the following Nautical Subjects during the period of the approved Deck Officer Class IV Refresher Course (12-weeks) at the respective Approved Training Centres:
 - (1) Navigation;
 - (2) Maritime Legislative Requirements; and
 - (3) Cargo Handling, Stability and Shipboard Operations.
2. The candidates who have successfully completed the approved Refresher Course shall continue the Deck Officer Class IV Oral Examination which shall be conducted by the Department of Marine Administration (DMA).
3. The candidates who have failed in the Oral Examination shall have to attempt for the Oral Examination only in the subsequent Oral Examination/s.
4. The candidates shall successfully completed the following Training Courses after passing the Oral Examination:
 - (A) Ship Manoeuvring and Handling Simulator Course; and
 - (B) Marine Resource Management Training Course
5. The Department of Marine Administration shall issue the Deck Officer Class IV Certificate of Competency to the candidates who have successfully completed the Oral Examination as well as holding the respective valid Certificates of Proficiency which are required by the STCW Convention Regulations and Codes.

MODE AND MARKING SYSTEM FOR DECK OFFICER CLASS IV CoC EXAMINATION

| No. | Subjects | Mode of Examination | Given marks | Passed marks |
|------------|-------------------|----------------------------|--------------------|---------------------|
| 1. | Nautical Subjects | Oral | 100 | 90 |

**SUMMARY OF TEACHING HOURS FOR
DECK OFFICER CLASS IV CoC COURSE**

| No. | Subjects | Examination | Teaching hours | Total weeks |
|-----------------------------|---|--------------------|-----------------------|----------------------------|
| 1. | Navigation | Assessment | 8 | 30 Hours / Week |
| 2. | Cargo Handling, Stability and Shipboard Operations (Cargo Handling & Stowage) | Assessment | 60 | |
| 3. | Cargo Handling, Stability and Shipboard Operations (Ship Construction & Stability) | Assessment | 48 | |
| 4. | Maritime Legislative Requirements | Assessment | 72 | |
| 5. | Cargo Handling, Stability and Shipboard Operations (Ship Safety, Security, Damage Control & Management of personnel) | Assessment | 60 | |
| 6. | Navigation emergencies / Handling / COLREG'72 & Oral | Assessment | 112 | |
| Total Teaching Hours | | | 360 | 12 weeks |

ANNEX (E)

Guidance of Maritime Education, Training and Examination for Deck Officer Class V (Chief Mate on a seagoing ship of between 500 and 3,000 gross tonnage engaged on near-coastal voyages) Certificate of Competency. (STCW Convention 1978, as amended, Regulation II/2)

The Examination for certification of **Deck Officer Class V** (Chief Mate on a seagoing ship of between 500 and 3,000 gross tonnage engaged on near-coastal voyages) consists of Written, Oral and Visual Signaling.

1. The Examination shall be conducted with the continuous assessment system during the approved training course.
2. The Written Examination shall be held at the Approved Training Centres in accordance with the Regulation I/6 of the STCW Convention 1978, as amended.
3. The Examination consists of the following Supporting-knowledge Subjects and Nautical Subjects:
 - (A) Supporting-knowledge Subjects is:
 - (1) Maritime English.
 - (B) Nautical Subjects are:
 - (1) Meteorology;
 - (2) Navigation;
 - (3) Chart Work;
 - (4) Electricity, Magnetism & Gyro Compass;
 - (5) Remote Control and Engineering System;
 - (6) Maritime Legislative Requirements; and
 - (7) Cargo Handling & Stowage; Stability; Construction & Shipboard Operation.
4. Every candidate for certification shall:
 - (A) meet the requirements for an officer in charge of a navigational watch (Deck Officer Class III) on ships of 500 gross tonnage or more (for Naval/ ex-Naval officers: excluding minimum sea service 3 months on merchant vessel);
 - (B) have successfully completed the Written Examination for the following Supporting-knowledge Subjects and Nautical Subjects during the period of the approved Deck Officer Class V course (23-weeks) at the respective Approved Training Centres.
 - (1) Supporting- knowledge Subjects
 - (a) Maritime English.
 - (2) Nautical Subjects
 - (a) Meteorology;
 - (b) Chart Work;
 - (c) Electricity, Magnetism & Gyro Compass;
 - (d) Remote Control and Engineering System;
 - (e) Maritime Legislative Requirements; and(The Written Examination is administered, supervised and monitored by Department of Marine Administration)
 - (C) The candidates who have failed in any subject/s of the Written Examination conducted by the Training Institutions and the Approved Training Centers shall have to attempt for the failed subject/s only in the subsequent Written Examination/s according to the respective semester.
5. have successfully completed the continuous Assessment for the following Nautical Subjects:
 - (A) Navigation and
 - (B) Cargo Handling & Stowage; Stability; Construction & Shipboard Operation.
6. After successfully completed the assessment, the candidates have to sit the Written Examination for the following Nautical Subjects conducted by the Board of Examiner (BOE) (Officials from the Department of Marine Administration, the Myanmar Maritime

University and the Myanmar Mercantile Marine College) designated by the Ministry of Transport at pre-determined place:

- (A) Navigation and
(B) Cargo Handling & Stowage; Stability; Construction & Shipboard Operation.

7. The candidates who have failed in any subject of the Written Examination conducted by (BoE) shall have to attempt for the failed subject/s only in the subsequent examination/s and shall be successfully completed all subjects within 1 year, which shall be counted at the beginning date of attempt of the Written Examination conducted by (BoE), otherwise shall have to attempt for the overdue subjects.
8. The candidates who have successfully completed the Written Examination shall continue the Visual Signaling and the Deck Officer Class V Oral Examination conducted by the Department of Marine Administration (DMA).
9. The candidates who have failed in the visual signaling examination shall have to attempt for the visual signaling examination only in the subsequent examination/s.
10. The candidates who have failed in the Oral Examination shall have to attempt for the Oral Examination only in the subsequent examination/s.
11. The Department of Marine Administration shall issue Deck Officer Class V Certificate of Competency to the candidates who have successfully completed the Oral Examination as well as holding the respective valid Certificates of Proficiency which are required by the STCW Convention Regulations and Codes.

**MODE AND MARKING SYSTEM FOR DECK OFFICER CLASS V
CoC EXAMINATION**

| No. | Subject | Mode of Examination | Duration of Examination | Maximum marks | Pass marks |
|-----|--|---------------------|-------------------------|---------------|------------|
| 1. | English | Written | 2 Hours | 100 | 50 |
| 2. | Meteorology | Written | 2 Hours | 100 | 50 |
| 3. | Maritime Legislative Requirement | Written | 2 Hours | 100 | 50 |
| 4. | EMG | Written | 2 Hours | 100 | 50 |
| 5. | Chart Work | Written | 2 Hours | 100 | 70 |
| 6. | Remote Control and Engineering System | Written | 2 Hours | 100 | 50 |
| 7. | Practical Navigation | Written (BoE) | 3 Hours | 100 | 70 |
| 8. | GSK | Written (BoE) | 3 Hours | 100 | 60 |

SUMMARY TEACHING HOURS FOR DECK OFFICER CLASS V CoC COURSE

| Semester | No. | Subjects | Teaching hours | Total weeks |
|-----------------------------------|-----------------------------|--|----------------|----------------------|
| I | 1. | English | 52 | 30 Hrs / week |
| | 2. | Navigation | 38 | |
| | 3. | Electricity, Magnetism & Gyro-compass | 60 | |
| | 4. | Meteorology | 60 | |
| | Total Teaching Hours | | | 210 |
| II | 1. | Navigation | 50 | 30 Hrs / week |
| | 2. | Chart Work | 60 | |
| | 3. | Maritime Legislative Requirements | 60 | |
| | 4. | Remote Control and Engineering System | 40 | |
| | 5. | GSK (Cargo Handling & Stowage; Stability; Construction & Shipboard Operation) | 72 | |
| | 6. | COLREG '72, Visual Signalling & Oral | 18 | |
| | Total Teaching Hours | | | 300 |
| III | 1. | Practical Navigation | 70 | 30 Hrs / week |
| | 2. | GSK (Cargo Handling & Stowage) | 40 | |
| | 3. | GSK (Stability, Construction & Shipboard Operation) | 40 | |
| | 4. | COLREG '72, Visual Signalling & Oral | 60 | |
| | Total Teaching Hours | | | 210 |
| Grand Total Teaching Hours | | | 720 | (24) weeks |

**Guidance of Maritime Education, Training and Examination for
Marine Engineer Officer Class I (Chief Engineer Officer on a seagoing ships
powered by main propulsion machinery of 3,000 kW propulsion
power or more) Certificate of Competency.
(STCW Convention 1978, Regulation III/2)**

The Examination for certification of **Marine Engineer Officer Class I** (Chief Engineer Officer on a seagoing ship powered by main propulsion machinery of 3,000 KW propulsion power or more) consists of Oral only.

1. Every candidate for certification shall:
 - (A) hold the Marine Engineer Officer Class II Certificate of Competency;
 - (B) have approved seagoing service of not less than 12 months as Second Engineer on ships powered by main propulsion machinery of 3,000 kW propulsion power or more or not less than 24 months as an officer in charge of an engineering watch on ships powered by main propulsion machinery of 750 kW propulsion power or more;
 - (C) have successfully completed the continuous Assessment for following Marine Engineering Technology Subjects during the period of the approved Marine Engineer Officer Class I Refresher Course (13- weeks) at the respective Approved Training Centres:
 - (1) Marine Engineering Knowledge (General);
 - (2) Marine Engineering Knowledge (Motor);
 - (3) Marine Electro-technology; and
 - (4) Naval Architecture and Ship construction.
2. The candidates, who have successfully completed the Refresher Course, shall have to continue the Marine Engineer Officer Class I Oral Examination which shall be conducted by the Department of Marine Administration (DMA).
3. The Department of Marine Administration shall issue Marine Engineer Officer Class I Certificate of Competency to the candidates who have successfully completed the Oral Examination as well as holding the respective valid Certificates of Proficiency which are required by the STCW Convention Regulations and Codes.

**MODE AND MARKING SYSTEM FOR
MARINE ENGINEER OFFICER CLASS I CoC EXAMINATION**

| No. | Subjects | Mode of Examination | Given marks | Passed marks |
|------------|--|----------------------------|--------------------|---------------------|
| 1. | Marine Engineering Technology Subjects | Oral | 100 | 90 |

**SUMMARY OF TEACHING HOURS FOR
MARINE ENGINEER OFFICER CLASS I REFRESHER COURSE**

| No. | Subjects | Mode of Examination | Teaching hours | Total weeks |
|-----------------------------|---|----------------------------|-----------------------|--------------------|
| 1. | Marine Engineering Knowledge(General) | Assessment | 165 | - |
| 2. | Marine Engineering Knowledge(Motor) | Assessment | 62 | - |
| 3. | Marine Electro-technology | Assessment | 137 | - |
| 4. | Naval Architecture and Ship Construction | Assessment | 26 | - |
| Total Teaching Hours | | | 390 | 13 |

**Guidance of Maritime Education, Training and Examination for
Marine Engineer Officer Class II (Second Engineer Officer on a seagoing ship
powered by main propulsion machinery of 3,000 kW propulsion power or
more) Certificate of Competency.
(Under STCW Convention, Regulation III/2)**

The Examination for certification of **Marine Engineer Officer Class II** (Second Engineer Officer on a seagoing ship powered by main propulsion machinery of 3,000 KW propulsion power or more) consists of Written and Oral parts.

1. Every candidate for certification shall:
 - (A) hold the Marine Engineer Officer Class III Certificate of Competency;
 - (B) have approved seagoing service of not less than 12 months as an officer in charge of an engineering watch on ships powered by main propulsion machinery of 3000 kW propulsion power or more;
 - (C) have successfully completed the Written Examination for the following Basic Marine Engineering Science Subjects at the respective Approved Training Centres:
 - (1) Mechanics & Hydro-Mechanics; and
 - (2) Thermodynamics & Heat Transmission(The Written Examination is administered, supervised and monitored by Department of Marine Administration.)
 - (D) have successfully completed the continuous Assessment for the following Marine Engineering Technology Subjects during the period of the approved Marine Engineer Officer Class I & II combined Course (30- weeks) at the respective Approved Training Centres:
 - (1) Marine Engineering Knowledge (General);
 - (2) Marine Engineering Knowledge (Motor);
 - (3) Marine Electro-technology; and
 - (4) Naval Architecture and Ship construction.
2. After successfully completed the Assessment, the candidates have to sit Written Examination for the following Marine Engineering Technology Subjects conducted by the Board of Examiner (BoE) (Officials from the Department of Marine Administration, the Myanmar Maritime University and the Myanmar Mercantile Marine College) designated by the Ministry of Transport at pre-determined place:
 - (A) Marine Engineering Knowledge (General);
 - (B) Marine Engineering Knowledge (Motor);
 - (C) Marine Electro-technology; and
 - (D) Naval Architecture and Ship construction.
3. The candidates who have failed in any subject of Written Examination conducted by (BoE) shall have to attempt for failed subject/s only in the subsequent Written Examination/s and shall be successfully completed all subjects within 2 year, which shall be counted at the beginning date of the attempt of Written Examination conduct by (BoE), otherwise shall have to attempt for the overdue subjects.
4. The candidates who have successfully completed the Written Examination have to continue the Marine Engineer Officer Class II Oral Examination which shall be conducted by the Department of Marine Administration (DMA).
5. The candidates shall successfully completed the following Training Courses after passing the Oral Examination:
 - (A) Design Features of High Voltage Installation Course; and
 - (B) Vessel Resources Management (VRM) Course.
6. The Department of Marine Administration shall issue Marine Engineer Officer Class II Certificate of Competency to the candidates who have successfully completed the Oral Examination as well as holding the respective valid Certificates of Proficiency which are required by the STCW Convention Regulations and Codes.

**SUMMARY OF TEACHING HOURS FOR
MARINE ENGINEER OFFICER CLASS II COURSE**

| No. | Subjects | Teaching hours | Total weeks |
|------------|--|-----------------------|--------------------|
| 1. | Marine Engineering Knowledge(General) | 247 | - |
| 2. | Marine Engineering Knowledge(Motor) | 109 | - |
| 3. | Marine Electro-technology | 260 | - |
| 4. | Naval Architecture and Ship Construction | 104 | - |
| 5. | Mechanics & Hydro-Mechanics | 90 | - |
| 6. | Thermodynamics & Heat Transmission | 90 | - |
| | | 900 | 30 |

**MODE AND MARKING SYSTEM FOR
MARINE ENGINEER OFFICER CLASS II CoC EXAMINATION**

| No. | Subjects | Mode of Examination | Time allowed | Given marks | Passed marks |
|------------|--|----------------------------|---------------------|--------------------|---------------------|
| 1. | Marine Engineering Knowledge(General) | Written (BoE) | 3 hours | 100 | 50 |
| 2. | Marine Engineering Knowledge(Motor) | Written (BoE) | 3 hours | 100 | 50 |
| 3. | Marine Electro-technology | Written (BoE) | 3 hours | 100 | 50 |
| 4. | Naval Architecture and Ship construction | Written (BoE) | 3 hours | 100 | 50 |
| 5. | Mechanics & Hydro-Mechanics | Written | 3 hours | 100 | 50 |
| 6. | Thermodynamics & Heat Transmission | Written | 3 hours | 100 | 50 |
| 7. | Marine Engineering Technology Subjects | Oral | - | 100 | 90 |

**Guidance of Maritime Education, Training and Examination for
Marine Engineer Officer Class III (Officer in charge of an engineering watch
on a seagoing ship powered by main propulsion machinery of 750 kW
propulsion power or more) Certificate of Competency.
(STCW Convention 1978 as amended, Regulation III/1)**

The Examination for certification of **Marine Engineer Officer Class III** (Officer in charge of an engineering watch on a seagoing ship powered by main propulsion machinery of 750 kW propulsion power or more) consists of Workshop Skills Training, Written and Oral parts.

**WORKSHOP SKILLS TRAINING
(The Examination for Marine Engineering Practical Subjects)**

1. The candidates shall have successfully completed Marine Engineering Practical Subjects (Workshop Skills Training) by the Assessment system during the training period of the approved Workshop Skills Training Course (**21-weeks**) at the respective Training Centres. The training Course is administered, supervised and monitored by the Department of Marine Administration (DMA).
2. The candidates holding Bachelor of Marine Engineering degree from the Myanmar Maritime University (MMU) shall be considered to have successfully completed the Marine Engineering Practical Subjects (Workshop Skills Training) during their education and training period. The training Course is Administered, Supervised and monitored by the Department of Marine Administration (DMA).
3. The candidates shall have successfully completed Marine Engineering Practical Subjects (Workshop skills Training) applying for the certification of Marine Engineer Officer Class III prior to the application.

**SUMMARY OF TEACHING HOURS FOR
MARINE ENGINEERING PRACTICAL SUBJECT
(Workshop Skill Training)**

| No. | Subjects | Examination | Teaching hours | Total weeks |
|-----|---------------------------------------|-------------|----------------|-------------|
| 1. | Marine Engineering Practical Subjects | Assessment | 630 | 21 |

**EXAMINATION SYSTEM FOR
MARINE ENGINEERING PRACTICAL SUBJECTS**

| No. | Subject | Examination System |
|-----|---------------------------------------|--|
| 1. | Marine Engineering Practical Subjects | Test and examination conducted with continuous assessment system during the workshop skill training course |

WRITTEN AND ORAL PARTS

(The examination for Basic Marine Engineering Science subjects and Marine Engineering Technology subjects)

The Examination for certification of **Marine Engineer Officer Class III** (Officer in charge of an engineering watch on a seagoing ship powered by main propulsion machinery of 750 kW propulsion power or more) consists of Written and Oral.

1. The Examination shall be conducted with the continuous Assessment system during the approved education and training period.
2. The Written Examination shall be held at the Training Institutions and the Approved Training Centers in accordance with the Regulation I/6 of the STCW Convention 1978, as amended.
3. The Written Examination consists of the following Basic Marine Engineering Science Subjects and Marine Engineering Technology Subjects:
 - (A) Basic Marine Engineering Science Subjects are:
 - (1) Mechanics;
 - (2) Thermodynamics;
 - (3) Mathematics; and
 - (4) Basic Engineering Drawing.
 - (B) Marine Engineering Technology Subjects are:
 - (1) Marine Engineering Knowledge (General);
 - (2) Marine Engineering Knowledge (Motor);
 - (3) Marine Electro-technology; and
 - (4) Naval Architecture and Ship Construction.
4. The candidates holding B.E (Marine Engineering) degree from the Myanmar Maritime University (MMU) for certification shall:
 - (A) have successfully completed the Written Examination for the following Basic Marine Engineering Science Subjects during their education and training period at the MMU:
 - (1) Mechanics;
 - (2) Thermodynamics;
 - (3) Mathematics; and
 - (4) Basic Engineering Drawing.(The Written Examination is administered, supervised and monitored by Department of Marine Administration.)
 - (B) have successfully completed the Assessment for the following Marine Engineering Technology Subjects during their education and training period at the MMU:
 - (1) Marine Engineering Knowledge (General);
 - (2) Marine Engineering Knowledge (Motor);
 - (3) Marine Electro-technology and
 - (4) Naval Architecture and Ship Construction.
 - (C) have successfully completed the Written Examination for the following Marine Engineering Technology Subjects conducted by the Board of Examiner (BoE) (Officials from the Department of Marine Administration, the Myanmar Maritime University and the Myanmar Mercantile Marine College) designated by the Ministry of Transport at the MMU:
 - (1) Marine Engineering Knowledge (General);
 - (2) Marine Engineering Knowledge (Motor);
 - (3) Marine Electro-technology; and
 - (4) Naval Architecture and Ship Construction.

- (D) The candidates who have failed in any subject of Written Examination conducted by (BoE) shall have to attempt for failed subject/s only in the subsequent Written Examination/s and shall be successfully completed all subjects within 2 years, which shall be counted at the beginning date of attempt of the Written Examination conduct by (BoE), otherwise shall have to attempt for the overdue subjects.
 - (E) have successfully completed the Marine Engineering Practical Subjects (Workshop Skills Training) during their education and training period.
 - (F) have approved seagoing service of not less than 9 months (have performed not less than 6 months for Engine-room Watch-keeping duty under the supervision of chief engineer officer or qualified engineer officer) with the approved Training Record Book (TRB).
 - (G) The candidates who have completed the approved seagoing service shall have to continue the Marine Engineer Officer Class III Oral Examination conducted by the Department of Marine Administration (DMA).
 - (H) The candidates who have failed in the Oral Examination shall have to attempt for the Oral Examination in the subsequent Oral Examination/s.
 - (I) The candidates shall successfully completed the following Training Courses after passing the Oral Examination:
 - (1) Operational Principles of High Voltage Installation Course; and
 - (2) Engine Room Resources Management (ERM) Course.
 - (J) The Department of Marine Administration shall issue Marine Engineer Officer Class III Certificate of Competency to the candidates who have successfully completed the Oral examination as well as holding the respective valid Certificates of Proficiency which are required by the STCW Convention Regulations and Codes.
5. The candidates holding **B.E** degrees other than B.E (Marine Engineering) degree for certification shall:
- (A) Have successfully completed the Marine Engineering Practical Subjects (Workshop Skills Training). The training Course is administered, supervised and monitored by the Department of Marine Administration (DMA).
 - (B) have approved seagoing service of not less than 9 months (have performed not less than 6 months for Engine-room Watch-keeping duty under the supervision of chief engineer officer or qualified engineer officer) with the approved Training Record Book (TRB).
 - (C) have successfully completed the Written Examination for the following Basic Marine Engineering Science Subjects during the period of the approved Marine Engineering Science Course for 10 weeks at Approved Training Centres:
 - (1) Mechanics;
 - (2) Thermodynamics ;
 - (3) Mathematics; and
 - (4) Basic Engineering Drawing.
 (The Written Examination is administered, supervised and monitored by Department of Marine Administration.)
 - (D) have successfully completed the Assessment for the following Marine Engineering Technology Subjects during their education and training period of the approved marine Engineering Knowledge Course for 30 weeks at approved Training Centres:
 - (1) Marine Engineering Knowledge (General);
 - (2) Marine Engineering Knowledge (Motor);
 - (3) Marine Electro-technology and
 - (4) Naval Architecture and Ship Construction.
 - (E) have successfully completed the Written Examination for the following Marine Engineering Technology Subjects conducted by the Board of Examiner (BoE) (Officials from the Department of Marine Administration, the Myanmar Maritime

University and the Myanmar Mercantile Marine College) designated by the Ministry of Transport at pre-determined place:

- (1) Marine Engineering Knowledge (General);
 - (2) Marine Engineering Knowledge (Motor);
 - (3) Marine Electro-technology; and
 - (4) Naval Architecture and Ship Construction.
- (F) The candidates who have failed in any subject of Written Examination conducted by (BoE) shall have to attempt for failed subject/s only in the subsequent Written Examination/s and shall be successfully completed all subjects within 2 years, which shall be counted at the beginning date of attempt of the Written Examination conduct by the Board of Examination (BoE), otherwise shall have to attempt for the overdue subjects.
- (G) The candidates who have successfully completed the Written Examination shall have to continue Marine Engineer Officer Class III Oral Examination conducted by the Department of Marine Administration (DMA).
- (H) The candidates who have failed in the Oral Examination shall have to attempt for the Oral Examination in the subsequent Oral Examination/s.
- (I) The candidates shall successfully completed the following Training Courses after passing the Oral Examination:
- (A) Operational Principles of High Voltage Installation Course; and
 - (B) Engine Room Resources Management (ERM) Course.
- (J) The Department of Marine Administration shall issue Marine Engineer Officer Class III Certificate of Competency to the candidates who have successfully completed the Oral examination as well as holding the respective valid Certificates of Proficiency which are required by the STCW Convention Regulations and Codes.
6. The candidates holding Diploma in Maritime Technology from the Myanmar Mercantile Marine College (MMMC) for certification shall:
- (A) have successfully completed the Written Examination for the following Basic Marine Engineering Science Subjects during their education and training period at the MMMC:
 - (1) Mechanics;
 - (2) Thermodynamics;
 - (3) Mathematics; and
 - (4) Basic Engineering Drawing.(The Written Examination is administered, supervised and monitored by Department of Marine Administration.)
 - (B) have successfully completed the Assessment for the following Marine Engineering Technology Subjects during their education and training period at the MMMC:
 - (1) Marine Engineering Knowledge (General);
 - (2) Marine Engineering Knowledge (Motor);
 - (3) Marine Electro-technology; and
 - (4) Naval Architecture and Ship Construction.
 - (C) have successfully completed the Marine Engineering Practical Subjects (Workshop Skills Training). The training Course is administered, supervised and monitored by the Department of Marine Administration (DMA).
 - (D) have approved seagoing service of not less than 9 months (have performed not less than 6 months for Engine-room Watch-keeping duty under the supervision of chief engineer officer or qualified engineer officer) with the approved Training Record Book (TRB).
 - (E) after completed the approved seagoing service, have successfully completed the Written Examination for the following Marine Engineering Technology Subjects conducted by the Board of Examiner (BoE) (Officials from the Department of

Marine Administration, the Myanmar Maritime University and the Myanmar Mercantile Marine College) designated by the Ministry of Transport at pre-determined place:

- (1) Marine Engineering Knowledge (General);
 - (2) Marine Engineering Knowledge (Motor);
 - (3) Marine Electro-technology; and
 - (4) Naval Architecture and Ship Construction.
- (F) The candidates who have failed in any subject of Written Examination conducted by (BoE) shall have to attempt for failed subject/s only in the subsequent Written Examination/s and shall be successfully completed all subjects within 2 years, which shall be counted at the beginning date of attempt of the Written Examination conduct by the Board of Examination (BoE), otherwise shall have to attempt for the overdue subjects.
- (G) The candidates who have successfully completed the Written Examination shall have to continue the Marine Engineer Officer Class III Oral Examination conducted by the Department of Marine Administration (DMA).
- (H) The candidates who have failed in the Oral Examination shall have to attempt for the Oral Examination in the subsequent Oral Examination/s.
- (I) The candidates shall successfully completed the following Training Courses after passing the Oral Examination:
- (1) Operational Principles of High Voltage Installation Course; and
 - (2) Engine Room Resources Management (ERM) Course.
- (J) The Department of Marine Administration shall issue Marine Engineer Officer Class III Certificate of Competency to the candidates who have successfully completed the Oral examination as well as holding the respective valid Certificates of Proficiency which are required by the STCW Convention Regulations and Codes.
7. The candidates holding **GTC** diploma or **B.Tech**: degree for certification shall:
- (A) have successfully completed the Marine Engineering Practical Subjects (Workshop Skills Training). The training Course is administered, supervised and monitored by the Department of Marine Administration (DMA).
 - (B) have approved seagoing service of not less than 9 months (have performed not less than 6 months for Engine-room Watch-keeping duty under the supervision of chief engineer officer or qualified engineer officer) with the approved Training Record Book (TRB).
 - (C) have successfully completed the Written Examination for the following Basic Marine Engineering Science Subjects during the period of the approved Marine Engineering Science Course for 20 weeks at Approved Training Centres :
 - (1) Mechanics;
 - (2) Thermodynamics;
 - (3) Mathematics; and
 - (4) Basic Engineering Drawing.(The Written Examination is administered, supervised and monitored by Department of Marine Administration.)
 - (D) have successfully completed the Assessment for the following Marine Engineering Technology Subjects during their education and training period of the approved marine Engineering Knowledge Course for 30 weeks at approved Training Centres:
 - (1) Marine Engineering Knowledge (General);
 - (2) Marine Engineering Knowledge (Motor);
 - (3) Marine Electro-technology; and
 - (4) Naval Architecture and Ship Construction.
 - (E) have successfully completed the Written Examination for the following Marine Engineering Technology Subjects conducted by the Board of Examiner (BoE) (Officials from the Department of Marine Administration, the Myanmar Maritime

University and the Myanmar Mercantile Marine College) designated by the Ministry of Transport at pre-determined place:

- (1) Marine Engineering Knowledge (General);
 - (2) Marine Engineering Knowledge (Motor);
 - (3) Marine Electro-technology; and
 - (4) Naval Architecture and Ship Construction.
- (F) The candidates who have failed in any subject of Written Examination conducted by (BoE) shall have to attempt for failed subject/s only in the subsequent Written Examination/s and shall be successfully completed all subjects within 2 year, which shall be counted at the beginning date of attempt of the Written Examination conduct by (BoE), otherwise shall have to attempt for the overdue subjects.
- (G) The candidates who have successfully completed the Written Examination shall have to continue the Marine Engineer Officer Class III Oral Examination conducted by the Department of Marine Administration (DMA).
- (H) The candidates who have failed in the Oral Examination shall have to attempt for the Oral Examination in the subsequent Oral Examination/s.
- (I) The candidates shall successfully completed the following Training Courses after passing the Oral Examination:
- (1) Operational Principles of High Voltage Installation Course; and
 - (2) Engine Room Resources Management (ERM) Course.
- (J) The Department of Marine Administration shall issue Marine Engineer Officer Class III Certificate of Competency to the candidates who have successfully completed the Oral Examination as well as holding the respective valid Certificates of Proficiency which are required by the STCW Convention Regulations and Codes.
8. The candidates who have passed the Basic Educational High School (**BEHS**) examination with Mathematics and Physics subjects' combination, for certification shall:
- (A) have approved seagoing service of not less than 36 months of which not less than 30 months in Engine Department.
 - (B) have successfully completed the Marine Engineering Practical Subjects (Workshop Skills Training). The training Course is Administered, Supervised and monitored by the Department of Marine Administration (DMA).
 - (C) have successfully completed the Written Examination for the following Basic Marine Engineering Science Subjects during the period of the approved Marine Engineering Science Course for 20 weeks at Approved Training Centres:
 - (1) Mechanics;
 - (2) Thermodynamics;
 - (3) Mathematics; and
 - (4) Basic Engineering Drawing.(The Written Examination is administered, supervised and monitored by Department of Marine Administration.)
 - (D) have successfully completed the Assessment for the following Marine Engineering Technology Subjects during the training period of the approved marine Engineering Knowledge Course for 30 weeks at approved Training Centres:
 - (1) Marine Engineering Knowledge (General);
 - (2) Marine Engineering Knowledge (Motor);
 - (3) Marine Electro-technology; and
 - (4) Naval Architecture and Ship Construction.
 - (E) have successfully completed the Written Examination for the following Marine Engineering Technology Subjects conducted by the Board of Examiner (BoE) (Officials from the Department of Marine Administration, the Myanmar Maritime University and the Myanmar Mercantile Marine College) designated by the Ministry of Transport at pre-determined place:
 - (1) Marine Engineering Knowledge (General);
 - (2) Marine Engineering Knowledge (Motor);

- (3) Marine Electro-technology; and
 - (4) Naval Architecture and Ship Construction.
 - (F) The candidates who have failed in any subject of Written Examination conducted by (BoE) shall have to attempt for failed subject/s only in the subsequent Written Examination/s and shall be successfully completed all subjects within 2 years, which shall be counted at the beginning date of attempt of the Written Examination conduct by (BoE), otherwise shall have to attempt for the overdue subjects.
 - (G) The candidates who have successfully completed the Written Examination shall have to continue the Marine Engineer Officer Class III Oral Examination conducted by the Department of Marine Administration (DMA).
 - (H) The candidates who have failed in the Oral Examination shall have to attempt for the Oral Examination in the subsequent Oral Examination/s.
 - (I) The candidates shall successfully completed the following Training Courses after passing the Oral Examination:
 - (A) Operational Principles of High Voltage Installation Course; and
 - (B) Engine Room Resources Management (ERM) Course.
 - (J) The Department of Marine Administration shall issue Marine Engineer Officer Class III Certificate of Competency to the candidates who have successfully completed the Oral Examination as well as holding the respective valid Certificates of Proficiency which are required by the STCW Convention Regulations and Codes.
9. The candidates for certification of **Naval / ex. Naval Engineer Officers** shall:
- (have approved seagoing service of not less than 36 months;
- (A) have successfully completed the Written Examination for the following Basic Marine Engineering Science Subjects during the period of the approved Marine Engineering Science Course for 10 weeks at Approved Training Centres:
 - (1) Mechanics;
 - (2) Thermodynamics;
 - (3) Mathematics; and
 - (4) Basic Engineering Drawing.
 (The Test Examination is administered, supervised and monitored by Department of Marine Administration.)
 - (B) have successfully completed Assessment for the following Marine Engineering Technology Subjects during the period of the approved Marine Engineering Knowledge Course for 30 weeks at approved Training Centres:
 - (1) Marine Engineering Knowledge (General);
 - (2) Marine Engineering Knowledge (Motor);
 - (3) Marine Electro-technology; and
 - (4) Naval Architecture and Ship Construction.
 - (C) have successfully completed the Written Examination for the following Marine Engineering Technology Subjects conducted by the Board of Examiner (BoE) (Officials from the Department of Marine Administration, the Myanmar Maritime University and the Myanmar Mercantile Marine College) designated by the Ministry of Transport at pre-determined place:
 - (1) Marine Engineering Knowledge (General);
 - (2) Marine Engineering Knowledge (Motor);
 - (3) Marine Electro-technology; and
 - (4) Naval Architecture and Ship Construction.
 - (D) The candidates who have failed in any subject of Written Examination conducted by (BoE) shall have to attempt for failed subject/s only in the subsequent Written Examination/s and shall be successfully completed all subjects within 2 years, which shall be counted at the beginning date of attempt of the Written Examination conduct by (BoE), otherwise shall have to attempt for the overdue subjects.
 - (E) The candidates who have successfully completed the Written Examination shall have to continue the Marine Engineer Officer Class III Oral Examination conducted by the Department of Marine Administration (DMA).
 - (F) The candidates who have failed in the Oral Examination shall have to attempt for the Oral Examination in the subsequent Oral Examination/s.

- (G) The candidates shall have successfully completed the following Training Courses after passing the Oral Examination:
- (1) Operational Principles of High Voltage Installation Course; and
 - (2) Engine Room Resources Management (ERM) Course.
- (H) The Department of Marine Administration shall issue Marine Engineer Officer Class III Certificate of Competency to the candidates who have successfully completed the Oral Examination as well as holding the respective valid Certificates of Proficiency which are required by the STCW Convention Regulations and Codes.

**SUMMARY OF TEACHING HOURS FOR
BASIC MARINE ENGINEERING SCIENCE SUBJECTS**

Basic Marine Engineering Science Course for 10 weeks

| No. | Subjects | Teaching Hours | Total week |
|-----|---------------------------|----------------|------------|
| 1. | Mechanics | 75 | - |
| 2. | Thermodynamics | 75 | - |
| 3. | Mathematics | 30 | - |
| 4. | Basic Engineering Drawing | 60 | - |
| 5. | English | 30 | - |
| 6. | Industrial Chemistry | 30 | - |
| | | 300 | 10 |

Basic Marine Engineering Science Course for 20 weeks

| No. | Subjects | Teaching Hours | Total week |
|-----|---------------------------|----------------|------------|
| 1. | Mechanics | 150 | - |
| 2. | Thermodynamics | 150 | - |
| 3. | Mathematics | 105 | - |
| 4. | Basic Engineering Drawing | 120 | - |
| 5. | English | 30 | - |
| 6. | Industrial Chemistry | 45 | - |
| | | 600 | 20 |

**MODE AND MARKING SYSTEM FOR
BASIC MARINE ENGINEERING SCIENCE SUBJECTS EXAMINATION**

| No. | Subjects | Mode of Examination | Time allowed | Given marks | Passed marks |
|-----|---------------------------|---------------------|--------------|-------------|--------------|
| 1. | Mechanics | Written | 3 hours | 100 | 50 |
| 2. | Thermodynamics | Written | 3 hours | 100 | 50 |
| 3. | Mathematics | Written | 3 hours | 100 | 50 |
| 4. | Basic Engineering Drawing | Written | 3 hours | 100 | 50 |
| 5. | English | Assessment | | | |
| 6. | Industrial Chemistry | Assessment | | | |

**SUMMARY OF TEACHING HOURS FOR
MARINE ENGINEERING TECHNOLOGY SUBJECTS**

| No. | Subjects | Teaching hour | Total week |
|-----|--|---------------|------------|
| 1. | Marine Engineering Knowledge(General) | 291 | - |
| 2. | Marine Engineering Knowledge(Motor) | 152 | - |
| 3. | Marine Electro-technology | 348 | - |
| 4. | Naval Architecture and Ship Construction | 109 | - |
| | | 900 | 30 |

**MODE AND MARKING SYSTEM FOR
MARINE ENGINEERING TECHNOLOGY SUBJECTS EXAMINATION**

| No. | Subjects | Mode of Examination | Time allowed | Given marks | Passed marks |
|-----|--|---------------------|--------------|-------------|--------------|
| 1. | Marine Engineering Knowledge(General) | Written (BoE) | 3 hours | 100 | 50 |
| 2. | Marine Engineering Knowledge(Motor) | Written (BoE) | 3 hours | 100 | 50 |
| 3. | Marine Electro-technology | Written (BoE) | 3 hours | 100 | 50 |
| 4. | Naval Architecture and Ship construction | Written (BoE) | 3 hours | 100 | 50 |
| 5. | Marine Engineering Technology Subjects | Oral | - | 100 | 90 |

ANNEX (I)

Guidance of Maritime Education, Training and Examination for Marine Engineer Officer Class IV (Chief Engineer on a seagoing ships powered by main propulsion machinery of between 750 kW and 3,000 kW Propulsion power) Certificate of Competency. (STCW Convention 1978, as amended, Regulation III/3)

The Examination for certification of **Marine Engineer Officer Class IV** (Chief Engineer Officer on a seagoing ship powered by main propulsion machinery of between 750 kW and 3,000 KW propulsion power) consists of Oral only.

1. Every candidate for certification shall:
 - (A) hold the Marine Engineer Officer Class V Certificate of Competency;
 - (B) have approved seagoing service of not less than 12 months as Second Engineer on a seagoing ship powered by main propulsion machinery of between 750 kW and 3,000 kW propulsion power; and
 - (C) have successfully completed the continuous Assessment for the following Marine Engineering Technology Subjects during the period of the approved Marine Engineer Officer Class IV course (12- weeks) at the respective Approved Training Centres:
 - (1) Marine Engineering Knowledge (General);
 - (2) Marine Engineering Knowledge (Motor);
 - (3) Marine Electro-technology; and
 - (4) Naval Architecture and Ship construction.
2. The candidates, who have successfully completed the Marine Engineer Officer Class IV course, shall have to continue the Marine Engineer Officer Class IV Oral Examination which shall be conducted by the Department of Marine Administration (DMA). The candidates who have failed in the Oral Examination shall have to attempt for the Oral Examination in the subsequent Oral Examination/s.
3. The Department of Marine Administration shall issue Marine Engineer Officer Class IV Certificate of Competency to the candidates who have successfully completed the Oral Examination as well as holding the respective valid Certificates of Proficiency which are required by the STCW Convention Regulations and Codes.

MODE AND MARKING SYSTEM FOR MARINE ENGINEER OFFICER CLASS IV CoC EXAMINATION

| No. | Subjects | Mode of Examination | Given marks | Passed marks |
|------------|--|----------------------------|--------------------|---------------------|
| 1. | Marine Engineering Technology Subjects | Oral | 100 | 90 |

**SUMMARY OF TEACHING HOURS FOR MARINE ENGINEER OFFICER CLASS IV
(Oral only)**

| No. | Subjects | Examination | Teaching hours | Total weeks |
|-----------------------------|--|--------------------|-----------------------|--------------------|
| 1. | Marine Engineering Knowledge(General) | Assessment | 210 | - |
| 2. | Marine Engineering Knowledge(Motor) | Assessment | 36 | - |
| 3. | Marine Electro-technology | Assessment | 72 | - |
| 4. | Naval Architecture and Ship Construction | Assessment | 42 | - |
| Total teaching hours | | | 360 | 12 |

**Guidance of Maritime Education, Training and Examination for
Marine Engineer Officer Class V (Second Engineer on a seagoing ships
powered by main propulsion machinery of between 750 kW and
3,000 kW Propulsion power) Certificate of Competency.
(STCW Convention 1978, as amended, Regulation III/3)**

The Examination for certification of **Marine Engineer Officer Class V** (Second Engineer Officer on a seagoing ship powered by main propulsion machinery of between 750 kW and 3,000 KW propulsion power) consists of Oral only.

1. Every candidates for certification shall:
 - (A) hold the Marine Engineer Officer Class III Certificate of Competency;
 - (B) have approved seagoing service of not less than 12 months as Officer in charge of an engineering watch on ships powered by main propulsion machinery of 750 kW propulsion power or more;
 - (C) have successfully completed the continuous Assessment the for following Marine Engineering Technology Subjects during the period of the approved Marine Engineer Officer Class V course (12- weeks) at respective Approved Training Centres:
 - (1) Marine Engineering Knowledge (General);
 - (2) Marine Engineering Knowledge (Motor);
 - (3) Marine Electro-technology; and
 - (4) Naval Architecture and Ship construction.
2. The candidates, who have successfully completed the approved Marine Engineer Officer Class V course, shall have to continue the Marine Engineer Officer Class V Oral Examination which shall be conducted by the Department of Marine Administration (DMA).The candidates who have failed in the Oral Examination shall have to attempt for the Oral Examination in the subsequent Oral Examination/s.
3. The candidates shall have successfully completed the following Training Courses after passing the Oral Examination:
 - (A) Design Features of High Voltage Installation Course; and
 - (B) Vessel Resources Management (VRM) Course.
4. The Department of Marine Administration shall issue Marine Engineer Officer Class V Certificate of Competency to the candidates who have successfully completed the Oral Examination as well as holding the respective valid Certificates of Proficiency which are required by the STCW Convention Regulations and Codes.

**MODE AND MARKING SYSTEM FOR
MARINE ENGINEER OFFICER CLASS V CoC EXAMINATION**

| No. | Subjects | Mode of Examination | Given marks | Passed marks |
|------------|--|----------------------------|--------------------|---------------------|
| 1. | Marine Engineering Technology Subjects | Oral | 100 | 90 |

**SUMMARY OF TEACHING HOURS FOR MARINE ENGINEER OFFICER CLASS V
(Oral only)**

| No. | Subjects | Examination | Teaching hours | Total weeks |
|-----------------------------|--|-------------|----------------|-------------|
| 1. | Marine Engineering Knowledge(General) | Assessment | 210 | - |
| 2. | Marine Engineering Knowledge(Motor) | Assessment | 36 | - |
| 3. | Marine Electro-technology | Assessment | 72 | - |
| 4. | Naval Architecture and Ship Construction | Assessment | 42 | - |
| Total teaching hours | | | 360 | 12 |

**Guidance of Maritime Education, Training and Examination for
Electro – Technical Officer (ETO) (serving on a seagoing ships powered by
main propulsion machinery of 750 kW propulsion power or more)
Certificate of Competency. (STCW Convention 1978, Regulation III/6)**

The Examination for certification of **Electro – Technical Officer** serving on a seagoing ship powered by main propulsion machinery of 750 kW propulsion power or more consists of written and oral parts.

WORKSHOP SKILLS TRAINING

1. Every candidate for certification shall:
 - (A) hold the B.E degree in Marine Electrical systems & Electronics or Electrical or Electronics; (or) hold the diploma or technology degree (GTC or B. Tech) in electrical or electronics subjects and have served approved seagoing service for 12 months as Electro – Technical Rating (ETR) with ETR proficiency certificate;
 - (B) have completed approved ETO workshop skills training course conducted in approved training centres with continuous assessment system for the following Marine Electro Technology and Supporting Knowledge Practical Subjects:
 - (1) Electrical, Electronics and Control Engineering
 - (2) Maintenance and repair
 - (3) General Engineering knowledge
 - (4) Controlling the operation of the ship and care for persons on board
2. The candidates shall have successfully completed Marine Electro Technology and Supporting Knowledge Practical Subjects (Workshop Skills Training) by the continuous assessment system during the training period of approved Workshop Skills Training Course at the respective Training Centres. The training Course shall be administered, supervised and monitored by the DMA.

SUMMARY OF TEACHING HOURS

| No. | Subjects | Examination | Teaching hours | Total weeks |
|-------------|--|-------------|----------------|-----------------|
| 1. | Electrical , Electronics and Control Engineering | Assessment | 292 | 9.7 |
| 2. | Maintenance and Repair | Assessment | 115 | 3.9 |
| 3. | General Engineering Knowledge | Assessment | 100 | 3.3 |
| 4. | Controlling the operation of ship and care for persons | Assessment | 12 | 0.4 |
| Total weeks | | | | 17.3 (4 months) |

**EXAMINATION SYSTEM FOR MARINE ELECTRO TECHNOLOGY AND
SUPPORTING KNOWLEDGE PRACTICAL SUBJECTS**

| No. | Subject | Examination | Maximum marks | Pass marks |
|-----|--|-----------------------|---------------|------------|
| 1. | Electrical, Electronics and Control Engineering | continuous assessment | 100 | 70 |
| 2. | Maintenance and Repair | continuous assessment | 100 | 70 |
| 3. | General Engineering Knowledge | continuous assessment | 100 | 60 |
| 4. | Controlling the operation of ship and care for persons | continuous assessment | 100 | 60 |

WRITTEN AND ORAL PARTS

**(The examination for Marine Electro Technology and
Supporting Knowledge subjects)**

1. have approved onboard training seagoing service for not less than 6 months as ETO trainee; (or) have not less than (36) months of approved seagoing service;
2. have successfully completed the continuous Assessment the for following Marine Electro Technology and Supporting Knowledge subjects during the period of Electro-Technical Officer (ETO) course at the approved Training Centres:
 - (A) Electrical, Electronics and Control Engineering;
 - (B) Maintenance and repair;
 - (C) General Engineering knowledge; and
 - (D) Controlling the operation of the ship and care for persons on board.
3. have successfully completed the Written Examination for the following Marine Electro Technology subjects conducted by the Board of Examiner (BoE) (Officials from the Department of Marine Administration, the Myanmar Maritime University and the Myanmar Mercantile Marine College) designated by the Ministry of Transport at pre-determined place:
 - (A) Electrical, Electronics and Control Engineering; and
 - (B) Maintenance and repair.
4. The candidates who have failed in any subject of Written Examination conducted by (BoE) shall have to attempt for failed subject/s only in the subsequent Written Examination/s and shall be successfully completed all subjects within 1 year, which shall be counted at the beginning date of attempt of the Written Examination conduct by (BoE), otherwise shall have to attempt for the overdue subjects.
5. The candidates who have successfully completed in Written Examination shall have to sit the Oral Examination conducted by the Department of Marine Administration (DMA). The candidates who have failed in the Oral Examination shall have to attempt for the Oral Examination in the subsequent Oral Examination/s.
6. The candidates shall have successfully completed the following Training Courses after passing the Oral Examination:
 - (A) Operate and Maintain High-Voltage power systems Course; and
 - (B) Vessel Resources Management (VRM) Course.
7. The Department of Marine Administration shall issue Electro-Technical Officer Certificate of Competency to the candidates who have successfully completed the Oral Examination as well as holding the respective valid Certificates of Proficiency which are required by the STCW Convention Regulations and Codes.

**SUMMARY OF TEACHING HOURS FOR MARINE ELECTRO TECHNOLOGY
AND SUPPORTING KNOWLEDGE SUBJECTS**

| No. | Subjects | Teaching hours | Total weeks |
|------------|--|-----------------------|--------------------|
| 1. | Electrical , Electronics and Control Engineering | 250 | - |
| 2. | Maintenance and Repair | 170 | - |
| 3. | General Engineering Knowledge | 69 | - |
| 4. | Controlling the operation of ship and care for persons | 30 | - |

EXAMINATION SYSTEM FOR SUPPORTING KNOWLEDGE SUBJECTS

| No. | Subject | Mode of Examination | Duration of Examination | Maximum marks | Pass marks |
|------------|--|----------------------------|--------------------------------|----------------------|-------------------|
| 1. | General Engineering Knowledge | Written | 2 Hours | 100 | 50 |
| 2. | Controlling the operation of ship and care for persons | Written | 2 Hours | 100 | 50 |

WRITTEN EXAMINATION FOR MARINE ELECTRO TECHNOLOGY SUBJECTS

| No. | Subject | Mode of Examination | Duration of Examination | Maximum marks | Pass marks |
|------------|--|----------------------------|--------------------------------|----------------------|-------------------|
| 1. | Electrical , Electronics and Control Engineering | Written (BoE) | 3 Hours | 100 | 50 |
| 2. | Maintenance and Repair | Written (BoE) | 3 Hours | 100 | 50 |