REPUBLIC OF THE MARSHALL ISLANDS

MARITIME ADMINISTRATOR

GUIDELINES FOR DECK OFFICER'S EXAMINATIONS (350 GROSS TON MASTER/500 GROSS TON MATE – YACHTS AND MASTER (YACHTS) – UNLIMITED)



Marshall Islands Maritime and Corporate Administrators, Inc. 11495 Commerce Park Drive Reston, Virginia 20191-1506, USA Telephone: +1-703-620-4880 Email: seafarers@register-iri.com Fax: +1-703-476-8522

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EXAM GUIDELINES (MI-319Y) REVISION HISTORY

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	9/14/2016	Updated to reflect changes to minimum score for Master (Yachts) – Unlimited Examination Structure (6 Modules); edits to minimum scores in Section IV (Examination Procedures), Master (Yachts) – Unlimited.	M. Sparks

CONTENTS

I.	INTRODUCTION	.1
II.	SYLLABUS – 350 TON MASTER/500 TON MATE – YACHTS	.2
III.	SYLLABUS –MASTER (YACHTS) – UNLIMITED	.4
IV.	EXAMINATION PROCEDURES	.6
V.	THE MULTIPLE-CHOICE EXAMINATION FORMAT: GENERAL ADVICE	.7
VI.	USING THE ANSWER SHEET	.9
VII.	SAMPLE QUESTIONS1	1
VIII.	EXAMINATION FEES1	7
ANNE	EX - PROCTOR GUIDE1	8

I. INTRODUCTION

The Republic of the Marshall Islands (RMI) Maritime Administrator's (the "Administrator") examination system reflects the provisions of the International Convention on Standards of Training, Certification, and Watchkeeping, 1978, as amended (STCW). Under this system, the examinations consist of multiple-choice questions randomly compiled from a database of questions, each appropriate for the competency being tested.

Certain training pre-requisites for certification apply. It is recommended that publication MI-118E, *Requirements for Seafarer Certification by Examination*, be consulted to determine what other examinations, certified training, or sea service may be required by the Administrator before an examination may be taken.

This booklet has been assembled to familiarize candidates for deck officers' examinations with the examination syllabus and format. It contains information on:

- a. the examination syllabus for both the 350 ton and unlimited examination;
- b. examination procedures and passmark requirements;
- c. examination answer sheet instructions; general advice on taking multiple-choice examinations;
- d. specimen examination questions, with an answer key;

350GT Yacht Master/500GT Yacht Mate Examination Structure (3 Modules)

Modules	Number of Questions	Time for Section	Minimum Score
1. Watchstanding Rules/RMI Regulations	20	1	90%
2. Navigational Problems	5	1	80%
3. Deck General	10	1	70%
Deck Safety/Environmental Protection	10		70%
 Practical Navigation 	10		70%
• Stability & Trim	5		70%
Total number of questions/Total hours	60	3	

Master (Yachts) – Unlimited Examination Structure (6 Modules)

Modules	Number of Questions	Time for Section	Minimum Score
1. Navigation Problems	20	1	80%
2. Practical Navigation	20	1	70%
3. Rules and Regulations	50	2	90%
4. Stability	10	1	70%
5. Oceans Winds and Weather	10	1	70%
6. Safety and Seamanship	30	1	70%
Total number of questions/Total hours	140	7	

II. SYLLABUS - 350 TON MASTER/500 TON MATE - YACHTS

The following is a list of the main parts and the subsections of the examination syllabus. Each of the six (6) parts of the syllabus corresponds to an examination paper (e.g., 1.0 is Watchkeeping, Rules and Regulations). Candidates' knowledge of each subsection will be tested.

1.0 Watchstanding, Rules and Regulations

- 1.1 <u>The International Regulations for Preventing Collisions at Sea</u>
- 1.2 The RMI Maritime Act and RMI Regulations (MI-107 and MI-108)
- 1.3 International Maritime Regulations and Ships' Operational Responsibilities

2.0 Navigation Problems

- 2.1 <u>Chartwork</u>
 - .1 Positioning
 - .2 Compass Error
 - .3 Buoyage Systems
 - .4 Passage Planning
 - .5 ETA
 - .6 Set and drift

3.0 Deck General

- 3.1 <u>Shiphandling</u>
 - .1 Anchoring and Mooring
 - .2 Distress Operations
 - .3 General Seamanship
 - .4 Shiphandling in Heavy Weather
 - .5 Towing
 - .6 Pilotage and Traffic Separation Schemes
- 3.2 Marine Engineering
 - .1 Main Propulsion Machinery
 - .2 Auxiliary Machinery

4.0 Deck Safety

- 4.1 Safety Legislation and Reference Materials
- 4.2 Life Saving Appliances
- 4.3 Fire Prevention and Firefighting
- 4.4 Emergency Medical Care and Emergency Procedures

5.0 Practical Navigation

- 5.1 Oceans, Winds, and Weather
 - .1 Tides and Currents
 - .2 The Atmosphere
 - .3 Winds and Waves
 - .4 Clouds and Precipitation
 - .5 Visibility
 - .6 Weather Systems, Including Tropical Revolving Storms

5.2 <u>Practical Navigation</u>

- .1 Terminology
- .2 Buoyage Systems
- .3 Piloting and Ocean Navigation
- .4 Chart Symbols and Construction

5.3 Applied Navigation

- .1 Navigation Problems
- .2 Compass Error
- .3 Passage Planning
- .4 Light Identification
- .5 Use of Reference Materials

6.0 Stability

- .1 Hydrostatic Principles and Data
- .2 Yacht Construction
- .3 Trim
- .4 Effects of Loading, Discharging, and Shifting Weights
- .5 The Inclining Experiment; The Trim and Stability Booklet
- .6 Miscellaneous Sources of Trim and Stability Guidance, Including Supplied Methods; Trials and Maneuvering Data
- .7 Metacentric Height; Stability at Large Angles of Heel
- .8 Damage Stability and Damage Control; Parallel Axes, Second Moment of Area, and Dry Docking

III. SYLLABUS -MASTER (YACHTS) - UNLIMITED

The following is a list of the main parts and the subsections of the examination syllabus. Each of the six (6) parts of the syllabus corresponds to an examination paper (e.g., 1.0 is Watchkeeping, Rules and Regulations). Candidates' knowledge of each subsection will be tested.

1.0 Navigation Problems

- 1.1 Chartwork Problems
 - .1 Positioning
 - .2 Compass Error
 - .3 Buoyage Systems
 - .4 Passage Planning
 - .5 ETA
 - .6 Set and drift
- 1.2 Applied Navigation
 - .1 Navigation Problems
 - .2 Compass Error
 - .3 Passage Planning
 - .4 Light Identification
 - .5 Use of Reference materials
 - .6 Celestial Navigation Problems

2.0 Practical Navigation

- 2.1 Terminology
- 2.2 Buoyage systems
- 2.3 Piloting and Ocean Navigation
- 2.4 Chart Symbols and Construction

3.0 Rules and Regulations

- 1.1 Convention on the International Regulations for_Preventing Collisions at Sea, 1972 (COLREG)
- 1.2 The RMI Maritime Act and RMI Regulations (MI-107 and MI-108)
- 1.3 International Maritime Regulations and Ships' Operational Responsibilities
- 1.4 International Convention for the Safety of Life at Sea, 1974/1978, as amended (SOLAS)
- 1.5 International Convention for the Prevention of Pollution from Ships, 1973, as amended (MARPOL)

4.0 Stability

- 4.1 Hydrostatic Principles and Data
- 4.2 Yacht Construction
- 4.3 Trim
- 4.4 Effects of Loading, Discharging, and Shifting Weights
- 4.5 The Inclining Experiment; The Trim and Stability Booklet
- 4.6 Miscellaneous Sources of Trim and Stability Guidance, Including Supplied Methods; Trials and Maneuvering Data
- 4.7 Metacentric Height; Stability at Large Angles of Heel
- 4.8 Damage Stability and Damage Control; Parallel Axes, Second Moment of Area, and Dry Docking

5.0 Oceans, Winds, and Weather

- 5.1 Tides and Currents
- 5.2 The Atmosphere
- 5.3 Winds and Waves
- 5.4 Clouds and Precipitation
- 5.5 Visibility
- 5.6 Weather Systems, Including Tropical Revolving Storms

6.0 Safety and Seamanship

- 6.1 Safety
 - .1 Life Saving Appliances
 - .2 Fire Prevention and Firefighting
 - .3 Emergency Medical Care and Emergency Procedures
- 6.2 Seamanship
 - .1 Shiphandling
 - .1 Anchoring and Mooring
 - .2 Distress Operations
 - .3 General Seamanship
 - .4 Shiphandling in Heavy Weather
 - .5 Towing
 - .2 Pilotage and traffic separation schemes
- 6.3 Marine Engineering
 - .1 Main Propulsion Machinery
 - .2 Auxiliary Machinery

IV. EXAMINATION PROCEDURES

Examinations are administered after Administrator approval and upon successful completion of the appropriate course. The examination is closed book; that is, candidates may not use books, notes, or other reference materials, other than those supplied at the test center. They may use non-programmable calculators and their own English language dictionaries if they wish. Candidates must bring their own navigation instruments (parallel rules, dividers, etc.). Publications such as a Nautical Almanac, tide tables, SOLAS, MARPOL, RMI publications, reduction tables, etc. will be available in the examination room.

Candidates may not communicate with each other during the examination. Any candidate who communicates with an unauthorized person, or uses unauthorized materials, will be dismissed from the examination and will be considered to have failed the entire examination. Candidates failing under these circumstances will not be eligible for re-examination for a period of six (6) months.

Candidates will normally be advised of their results immediately after an examination grader has reviewed their examination. A passing grade will be considered as follows:

350 GT MASTER/500 GT MATE – YACHTS

Navigation Rules – 90% Chart Problems – 80% All other sections – 70%

Candidates who are not successful in one (1) of the exams must arrange to be re-examined in that section and obtain a passing grade in order to receive certification. Candidates who are not successful in two (2) or more sections must retake the entire course/examination.

MASTER (YACHTS) – UNLIMITED 70% Practical Navigation Stability Oceans Winds and Weather Safety and Seamanship

80% Navigation problems

90% Rules and Regulations

Candidates who are not successful in up to two (2) sections must arrange to be re-examined in those sections and obtain a passing grade in order to receive certification. Candidates who are not successful in more than two (2) sections must retake the entire examination. Figure 2 summarizes the re-examination procedure.

Up to two (2) re-examinations may be taken. A candidate may re-take the section(s) as soon as it has been determined that he/she has been unsuccessful in no more than two (2) sections; however, in no case shall this be permitted more than one (1) year from the date

of the initial examination.

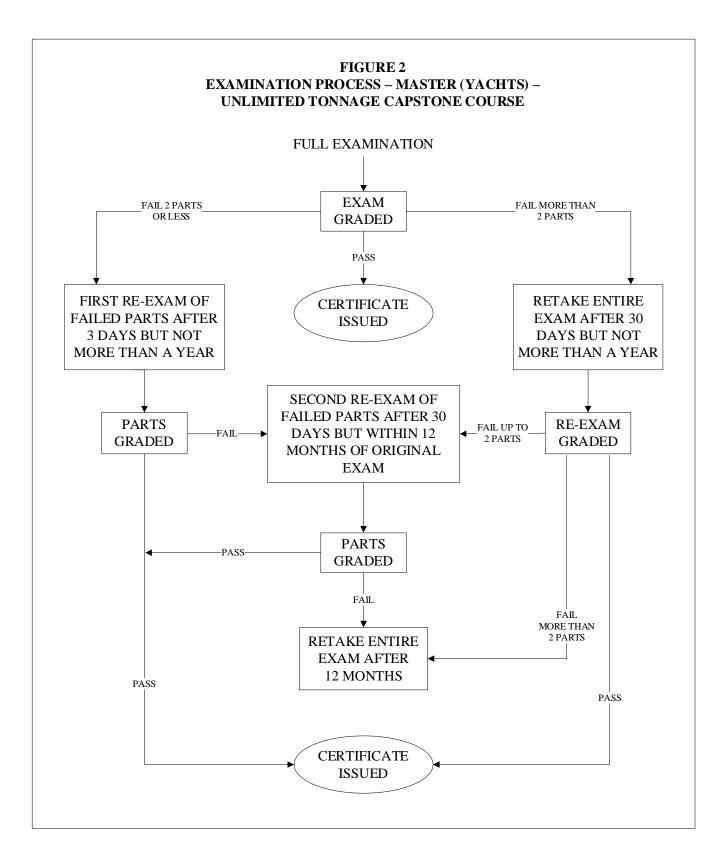
If the candidate has not been successful in more than two (2) sections, then he/she must wait at least 30 days to retake the entire examination but no more than one (1) year from the date of the initial examination.

The second re-examination will be determined from the first re-examination date. The candidate must wait at least 30 days for the second re-examination. This will allow the candidate to better prepare for the retake. If the candidate is unsuccessful after two (2) attempts, the entire examination must be retaken but not within a year's time from the date of the last examination taken.

If the entire examination must be taken again due to failure to pass all sections in two (2) retake attempts, the entire examination fee will be collected.

V. THE MULTIPLE-CHOICE EXAMINATION FORMAT: GENERAL ADVICE

The examination format is multiple-choice. Each question has four (4) possible answers. The candidate must blacken the space on the answer sheet that corresponds to the letter of the answer that is considered to be the most appropriate. A candidate's score is determined by the number of questions that are answered correctly compared to the number of questions in that test part. All questions have the same value. Candidates are advised to answer each question as well as they can and not to spend too much time on any particular question. Candidates not knowing the answer to a question should leave it blank and go on to the next question. If time is left after finishing the rest of the questions, the candidate can then go back to the questions left blank to answer those that were skipped.



VI. USING THE ANSWER SHEET

A specimen of the examination answer sheet is shown in Figure 3. The candidate must mark all answers on a sheet similar to this. No credit will be given for anything marked in the examination booklet. The candidate should not make any notes, calculations, or extra marks on the answer sheet. The candidate must NOT fold the answer sheet.

The answer spaces are lettered a, b, c, and d to match the answers in the examination booklet. The candidate should use a No. 2 pencil to fill in the space marked with the letter corresponding to the letter of the answer that best answers the question. The candidate should be sure that the circle is filled in completely. IF THE CANDIDATE CHANGES THE ANSWER, THE FIRST CHOICE MUST BE ERASED COMPLETELY AND THE NEW ANSWER MARKED.

No credit will be given for questions with what would appear to have more than one (1) answer marked.

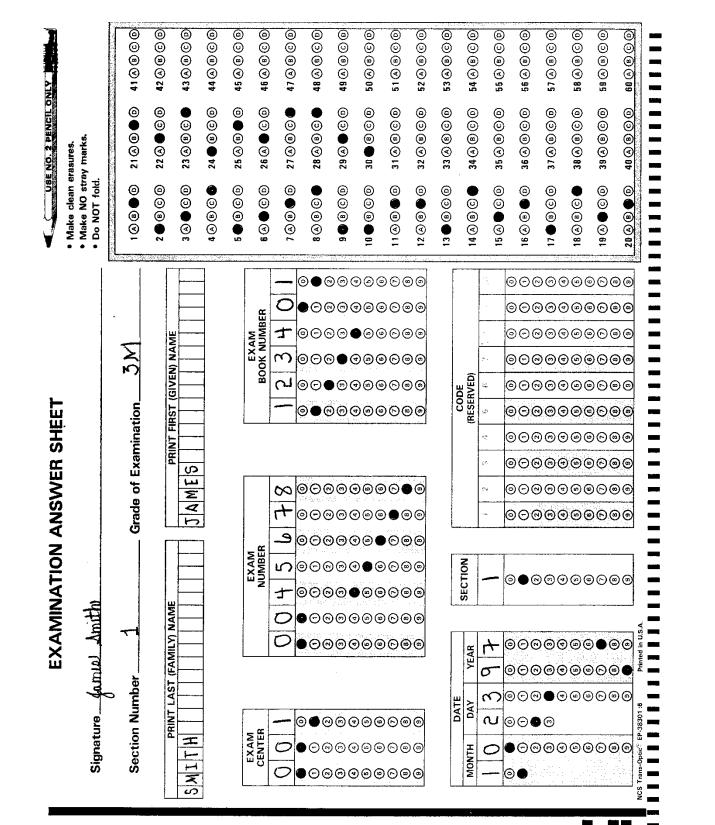


FIGURE 3

VII. SAMPLE QUESTIONS

1.0 Watchstanding Rules and Regulations

- .1 All of the following are distress signals under the Rules EXCEPT_____.
 - a. International Code Signal "AA"
 - b. orange-colored smoke
 - c. red flares
 - d. the repeated raising and lowering of out stretched arms
- .2 The operation of Republic of the Marshall Islands (RMI) registered vessels is governed at all times and places by_____.
 - a. the national law of the Master and crew.
 - b. the RMI Maritime Act.
 - c. the American General Maritime Law.
 - d. the law of the port country, if the ship is in port, and the RMI Maritime Act when the ship is in international waters.
- .3 You are in charge of a power-driven vessel making way in dense fog. You observe what appears to be another vessel on radar half a mile distant on your port bow and closing. You must _____.
 - a. sound the danger signal
 - b. exchange passing signals
 - c. sound one prolonged blast
 - d. sound one short, one prolonged, and one short blast
- .4 In which situation would risk of collision definitely exist?
 - a. A vessel is 22 degrees on your port bow, range increasing, bearing changing slightly to the right.
 - b. A vessel is broad on your starboard beam, range decreasing, bearing changing rapidly to the right.
 - c. A vessel is 22 degrees abaft your port beam, range increasing, bearing is constant.
 - d. A vessel is on your starboard quarter, range decreasing, bearing is constant.
- .5 Which situation would be a "special circumstance" under the Rules?
 - a. Vessel at anchor
 - b. More than two vessels meeting
 - c. Speed in fog
 - d. Two vessels crossing

2.0 Deck General

- .1 You are on a single-screw vessel with a left-handed propeller making no way in the water. How will your vessel react when you apply right rudder?
 - a. Bow will kick to starboard
 - b. Bow will kick to port
 - c. Rudder alone has no effect on the vessel
 - d. Stern will kick to port, then slowly swing to starboard
- .2 What are reef points used for?
 - a. Reduce the area of a sail
 - b. Keep the sail taut in light airs
 - c. Reduce the draft if the boat runs aground
 - d. Increase the strength of the mast
- .3 Your vessel is port side to a pier with a spring line led aft from the bow. In calm weather, putting the engines ahead with the rudder hard to port should bring _____.
 - a. the bow in and the stern out
 - b. both the bow and stern in
 - c. the bow out and the stern in
 - d. both the bow and stern out
- .4 What is required to be stenciled at the heel of a cargo winch/boom?
 - a. Maximum angle of elevation permitted
 - b. Date of the last quadrennial test
 - c. Safe working load
 - d. Manufacture's name
- .5 A proper look-out must be kept _____.
 - a. only in fog
 - b. only between the hours of sunset and sunrise
 - c. only when entering and leaving port
 - d. at all times

3.0 Deck Safety and Environmental Protection

- .1 Radiation spreads a fire by _____.
 - a. transferring heat across an unobstructed space
 - b. heated gases flowing through ventilation systems
 - c. burning liquids flowing into another space
 - d. transmitting the heat of a fire through the ship's metal
- .2 The major cause of shock in burn victims is the _____.
 - a. high level of pain
 - b. emotional stress
 - c. increase in body temperature and pulse rate
 - d. massive loss of fluid through the burned area

.3 Hand holds or straps on the underside of an inflatable liferaft are provided _____.

- a. to right the raft if it capsizes
- b. to carry the raft around on deck
- c. for crewmen to hang on to
- d. to hang the raft for drying
- .4 A person has fallen overboard and is being picked up with a rescue boat. If the person appears in danger of drowning, the rescue boat should be maneuvered to make_____.
 - a. an approach from leeward
 - b. an approach from windward
 - c. an approach across the wind
 - d. the most direct approach
- .5 How often should the line throwing equipment be demonstrated to the crew on an RMI registered ship?
 - a. every three months.
 - b. every voyage.
 - c. monthly.
 - d. weekly.

4.0 Navigation General

.1 On a mercator chart, 1 nautical mile is equal to _____.

- a. 1 minute of longitude
- b. 1 degree of longitude
- c. 1 minute of latitude
- d. 1 degree of latitude
- .2 While taking weather observations, you determine that the wind is blowing from the northeast. You would record the wind direction in the logbook as _____.
 - a. 045°
 - b. 090°
 - c. 300°
 - d. 225°

.3 The revision date of a chart is printed on which area of the chart?

- a. top center
- b. lower-left corner
- c. part of the chart title
- d. any clear area around the neat line
- .4 Which term refers to the direction a current is flowing?
 - a. Set
 - b. Drift
 - c. Vector direction
 - d. Stand

.5 Solid green arrows on the main body of a pilot chart indicate ______.

- a. prevailing wind directions
- b. prevailing ocean current directions
- c. probable surface current flow
- d. shortest great circle routes

5.0 Stability and Trim

- .1 When the height of the metacenter is the same as the height of the center of gravity, the metacentric height is equal to _____.
 - a. the height of the metacenter
 - b. the height of the center of gravity
 - c. half the height of the metacenter
 - d. zero
- .2 The waterplane area is described as the intersection of the surface of the water in which a vessel floats and the _____.
 - a. baseline
 - b. vertical reference plane
 - c. hull
 - d. horizontal reference plane

.3 A tank which is NOT completely full or empty is called _____.

- a. pressed
- b. slack

_____•

- c. inertial
- d. elemental

.4 You must shift a large tender (weight) from an upper deck to a lower hold. This shift will

- a. make the vessel more tender
- b. make the vessel stiffer
- c. increase the rolling period
- d. decrease the metacentric height
- .5 Forces within a vessel have caused a difference between the starboard and port drafts. This difference is called _____.
 - a. list
 - b. heel
 - c. trim
 - d. flotation

Answer Key

Section 1 – Watchstanding Rules and Regulations

1. a

- 2. b
- 3. c
- 4. d
- 5. b

Section 2 – Deck General

- 1. c
- 2. a
- 3. a
- 4. c
- 5. d

Section 3 – Deck Safety and Environmental Protection

- 1. a
- 2. d
- 3. a
- 4. d
- 5. a

Section 4 – Navigation General

- 1. c
- 2. a
- 3. b
- 4. a
- 5. b

Section 5 – Stability and Trim

- 1. d
- 2. c
- 3. b
- 4. b
- 5. a

VIII. EXAMINATION FEES

i.	Examination fees	JSD \$300
ii.	Each re-take of failed officer examination	JSD \$150

Remittances

- i. All fees remitted by check or money order must be in United States (US) dollars, drawn on a US bank or the US branch of an international bank and made payable to *The Trust Company of the Marshall Islands, Inc.*
- ii. Fees may also be paid online by credit card at <u>https://www.tcmi-inc.com/miPayments/</u>.
- iii. Candidates should send checks (**no cash**) with the application.
- iv When not applying in person through a filing agent, the application with payment should be sent by **courier**.

ANNEX - PROCTOR GUIDE

Proctors for Marshall Islands examinations must ensure a secure examination room. To ensure security:

- the examinee cannot leave the examination room while an examination is being taken until they have completed a specific part, comfort calls must be made prior to the examination;
- examinees cannot speak to anyone but the proctor during the examination;
- examinees cannot use any material other than that supplied in the examination room and allowed by the Administrator for a given part of the examination; and
- examinees must turn in any electronic devices that are capable of communicating outside of the examination room, recording, or taking photographs (e.g. cellular telephones).

Examinees may bring the following personal items into the examination room to aid them:

- A non-programmable calculator
- Writing instruments
- Navigation plotting instruments
- Star finder

Proctors should ensure the following are made available to the examinee:

- Writing instruments
- Scratch Paper
- Appropriate publications (as required by exam type)
 - o SOLAS
 - o MARPOL
 - MI-108 Maritime Regulations (available at <u>www.register-iri.com</u>)
 - MI-107 Maritime Law (available at <u>www.register-iri.com</u>)
 - Reduction tables for Latitudes 15 to 45 degrees
 - Examination Administration Booklet (supplied by the Administrator)
- Critique sheet for each part of the examination
- Answer sheet for each part of the examination (must not write in booklet)

The duration of each part of the examination and the entire examination cannot exceed the scheduled time. Examinees may, however, take as many parts in one day as they can complete, taking less time overall to complete the entire examination.

At the end of each section the proctor must collect all scratch paper, the examination booklet, the critique sheet, and the answer sheet and return them to the Administrator for review and correction. The results will be sent to the facility proctoring the examination and to the sponsor for the examinee.

The Administrator has no objection to third party facilities that provide proctoring services for Marshall Islands examinations to recoup their expenses by charging examinees a fee not to exceed USD 150.00.