

NATIONAL METROLOGY ACT, 2003
ARRANGEMENT OF SECTIONS
NO. 23 OF 2003

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No. 23 of 2003

I assent,

(SIR COLVILLE N. YOUNG)
Governor-General

5th January, 2004.

AN ACT to make new and better provisions with respect to weights and measures; to repeal the Weights and Measures Act, Chapter 294 of the Laws of Belize, Revised Edition 2000; and to provide for matters connected therewith or incidental thereto.

(Gazetted 10th January, 2004.)

BE IT ENACTED, by and with the advice and consent of the House of Representatives and the Senate of Belize and by the authority of the same, as follows:-

PART I
PRELIMINARY

1. (1) This Act may be cited as the

Short title.

(2) This Act shall come into force on a day to be appointed by the Minister by Order published in the *Gazette*.

Interpretation.

2. In this Act, unless the context otherwise requires:-

“accuracy” means the degree of conformity with such one or more working, secondary, or national reference or international standards as the context demands;

Fourth
Schedule.

“authorized denomination” means the denomination of a weight or measure specified in the **Fourth Schedule**;

Third
Schedule.

“authorized units of measurement” means the units of measurement specified in the **Third Schedule**;

CAP. 295.

“Bureau” means the Belize Bureau of Standards established by the Standards Act;

“container” includes anything in or by which an article is cased, enclosed, contained or packed;

CAP. 295.

“Director” means the Director of Standards appointed under section 4 of Standards Act and includes a Weights and Measures Inspector;

“equipment” means a weight, measure, or a weighing or measuring instrument or sub-assembly of a weighing or measuring instrument;

“importer” means the person by whom or on whose behalf the package, container, or weighing or measuring equipment is entered for customs purposes on importation;

“initial verification” means the verification of a new or repaired weight, measure or weighing or measuring instrument prior to being placed in service;

“International Bureau of Weights and Measures” means the *Bureau International des poids et Mesures*, established under the *Convention du Metre, at Sévres* in France;

“International System of Units” means the metric system of units as defined by the General Conference of Weights and Measures and modified from time to time by the Minister by Order published in the Gazette for the purposes of this Act;

“in-service verification” means the periodic verification of a weight, measure or weighing, or measuring instrument which has been subject to initial verification and has been in service;

“measuring instrument” means an instrument used for the measurement of any physical attribute and includes instruments or objects for use in the measurement of weight, length, area, volume, capacity, dimension, gauge, number, time, electric current, temperature, light intensity and any combination thereof;

“Minister” means the Minister for the time being responsible for metrology;

“National Reference Standards” means an object which:

- (a) represents or reproduces a unit of measurement referred to in section 5(2) of this Act;
- (b) has been calibrated and certified to the satisfaction of the Bureau by reference to appropriate standards held, issued or certified by the International Bureau of Weights and Measures; and

(c) is or to be, used as a standard for determining the accuracy of a secondary standard;

“packer” means, in relation to a pre-package, the person who placed the goods in the container included in the pre-package;

“pattern approval” means the approval by the Director of a specific model of a weighing or measuring instrument for its intended use, after one or more instruments have been tested in accordance with the prescribed requirements;

“pre-package” means a container containing goods together with the container in a case where:

(a) the goods are placed for sale in the container otherwise than in the presence of a person purchasing the goods; and

(b) none of the goods can be removed from the container without opening it;

“prescribed” means prescribed by Regulations made by the Minister under this Act;

“prescribed mark of verification” means a mark prescribed by Regulations made by the Minister under this Act;

“Specified Standards laboratory” means the national standards laboratory of any country or an international standards laboratory specified by the Minister for the purposes of this Act by Order published in the *Gazette*;

“trade” means any contract, bargain, sale or dealing referred to in section 10 of this Act and includes the packing in Belize of any article in a container for purposes of sale;

“weight” means a body of determinate mass for use within a weighing instrument;

“weighing instrument” means an instrument for the measurement of mass or weight;

“Working Standard” means an object, being a copy of, or equivalent to, a Secondary Standard, which -

- (a) has been calibrated and certified to the satisfaction of the Bureau by reference to one or more Secondary Standards; and
- (b) is, or is to be, used as a standard for the purpose of determining the accuracy of measuring instruments other than National Reference or Secondary Standards.

PART II

LEGAL UNITS OF MEASUREMENT

The International System of Units to apply to Belize First Schedule.

3. (1) The International System of Units as set out and defined in the First Schedule, including the base, supplementary, derived and permitted units of measurement of that System, and the symbol applicable thereto, shall be the legal units of measurement of Belize.

Second Schedule.

(2) For the purposes of this Act, the multiples and submultiples of the units of measurements referred to in subsection (1) above are and shall be determined by the application of the prefixes set out and defined in the Second Schedule.

(3) The abbreviation “SI” shall be officially and judicially noticed and recognised in Belize as a legal reference to the International System of Units.

4. The British Imperial System of units as defined in Part II of the Third Schedule, are and shall be authorized units of measurement and may also be used concurrently with the International System of Units.

British Imperial Units to be legal as well Third Schedule.

(1) The Minister may, by Order publish in the *Gazette*, appoint a day from and after which the System of Units referred to in Part II of the **Third Schedule** shall cease to have legal force and validity in Belize, and the Minister may appoint different days for different undertaking or class of undertaking specified in the Order.

Power to revoke the British Imperial System Third Schedule.

(2) Notwithstanding subsection (1), the Minister may, by Order published in the *Gazette*, provide for the continued application in Belize of the American system of weights and measurements until such time as the Minister may, by a like Order appoint, and the Minister may appoint different days for different undertaking or class of undertaking on which the said weights and measurements shall cease to have legal effect in Belize."

PART III

STANDARDS OF THE UNITS OF MEASUREMENT

5. (1) For the purposes of this Act, the Minister shall procure and cause to be maintained National Reference Standards and from time to time such standards of other units of measurement as may be considered by him necessary.

National Reference Standards to be legal units.

(2) Every standard of any unit of measurement procured under subsection (1) above shall be the equivalent of a unit of measurement defined in the **First Schedule** of in Part II of the **Third Schedule** or any multiple or submultiple of any such unit of measurement, and shall be made of such materials and in such manner as to be, as far as practicable, proof against mechanical and atmospheric agencies and other sources of error.

First Schedule. Third Schedule.

Verification
and
declaration
of National
Reference
Standards.

6. (1) Every standard of any unit of measurement procured under section 6 above shall be calibrated and certified at a specified standards laboratory before such standard is brought into use in Belize.

(2) The Minister may, by Order published in the *Gazette*, declare that a standard of any unit of measurement which has been procured and verified under this section shall be brought into use in Belize and such standard shall, upon the commencement of such Order, become a National Reference Standard and shall for all purposes be deemed to be true and accurate.

(3) The Minister shall, at least once after every ten years, cause such National Reference Standards as he deems necessary to be verified at a specified standards laboratory:

Provided, however, that if any National Reference Standard is sent out of Belize for purposes of verification, the Minister shall, in its absence, cause a Secondary Standard of that unit of measurement to be verified by comparison with such National Reference Standard and authenticated in such manner as the Minister may direct, and thereafter placed in the custody of the Director, and such Secondary Standard shall, during such time as the National Reference Standard is out of Belize, be deemed to be a National Reference Standard.

Copies,
verification,
calibration
and
cancellation
of Secondary
Standards.

7. (1) The Minister may, for the purposes of this Act, cause such copies as he may consider necessary of any National Reference Standard to be made in such manner and to be of such material, form and specification as he may prescribe or Secondary Standards.

(2) Every Secondary Standard of any unit of measurement shall be kept and preserved in such manner as may be prescribed, at the office and in the custody of the Director, who shall, at least once every five years, cause such

standard to be compared with the National Reference Standard of that unit of measurement, and if necessary, to be corrected, adjusted or calibrated.

(3) The Minister may, at any time by Order published in the *Gazette*, cancel any Secondary Standard and any standard so cancelled shall thereupon cease to be, or to used as, a Secondary Standard.

(4) The Director may from time to time for the purposes of this Act procure such copies as may be necessary of the Secondary Standards of any unit of measurement, and every such copy shall be made in such manner and shall be of such materials, form and specifications as may be prescribed for that purpose.

(5) The Director shall cause every such copy of a Secondary Standard to be verified, and, if found to be correct, to be authenticated, in the prescribed manner, and every copy so authenticated shall be a Working Standard for the purposes of this Act, and shall be deemed until the contrary is proved, to be true and accurate.

8. (1) Every Working Standard in the custody of the Director, a Weights and Measures Inspector or any other agency to which custody has been assigned, shall be verified at least once every two years by comparison against a Secondary Standard of that unit of measurement.

Periodic verification of Working Standards and verification in the event of damage.

(2) In the event of damage of a Working Standard, such standard shall not be used unless it has been compared with a Secondary Standard of that unit of measurement and found to be true and accurate, and authenticated by the Director in the prescribed manner.

9. Every court of competent jurisdiction shall take judicial notice of every National Reference Standard, Secondary Standard and Working Standard.

Judicial notice of standards.

Custodian of Standards.

10. The Director shall be the custodian of National Reference Standards Secondary Standards and Working Standards.

PART IV

USE OF THE AUTHORIZED UNITS OF MEASUREMENT

Use of authorized units for all purposes.

11. Every contract, bargain, sale or dealing made or had in Belize whereby any work, goods, wares, merchandise, or other thing is or are to be done, sold, hired, delivered, carried, measured, computed, paid for, or agreed to, by a unit of measurement, shall be made and had according to any one of the authorized units of measurement specified in the **Third Schedule**.

Third Schedule.

Use of authorized units for collection of fees and duties.

12. All fees and duties whatsoever charged or collected in Belize shall be based on the authorized units of measurement specified in the **Third Schedule**.

Packing of goods to be in authorized units.

Third Schedule.

13. The packing in Belize of any article or container for the purposes of sale shall be done according to any one of the authorized units of measurement specified in the **Third Schedule**.

Exemption of export goods.

14. The provisions of section 12 above shall not apply to goods which are intended for dispatch to a destination outside Belize.

PART V

USE OF WEIGHING AND MEASURING EQUIPMENT

Weighing and measuring equipment to be in authorized units.

Third Schedule.

15. All weighing and measuring equipment for use in trade in Belize shall be in the authorized units of measurement specified in the **Third Schedule**.

16.(1) No weight or measure other than a weight or measure of an authorized denomination specified in Part I or Part II of the **Fourth Schedule** shall be used for purposes of any trade.

Use of authorized denominations of weights and measures **Fourth Schedule.**

(2) No person shall use for the purposes of any trade, or have in his possession for use in any trade:-

- (a) any weight which purports to be of an authorized denomination, unless the denomination is indelibly marked on the top or side thereof in legible figures and letters;
- (b) any measure of length or volume which purports to be of a denomination equivalent to an authorized denomination, unless the denomination is marked indelibly on the outside thereof in legible figures and letters:

Provided that nothing in this section shall be deemed to require the marking of a denomination of any weight, if the small size of such weight renders such marking impracticable.

17. No person shall use for the purposes of any trade, or have in his possession for use in any trade, any weighing or measuring instrument which does not bear a stamp indicating the maximum weight or measure, as the case may be, which may be weighted or measured by means of such instrument.

Prohibition from using or possessing weighing or measuring instruments the capacity of which is not marked thereon.

18. No person shall sell or expose for sale any weight or measure or weighing or measuring instrument which has not been verified and stamped by a Weights and Measures Inspector with the prescribed mark of verification.

Prohibition on sale of weights, measures and measuring instruments not stamped by Inspectors.

Prohibition from using weights, measures or instruments not stamped by Inspectors.

19. No person shall use a weight, measure or weighing or measuring instrument which has not been verified and stamped by a Weights and Measures Inspector with the prescribed mark of verification for purposes of trade.

Seller to weigh or measure article if required.

20.(1) Every person who in any shop, warehouse, store, market or public place sells any goods by weight or measure, whether on his own behalf or on behalf of the owner of such goods, shall on demand made by the person to whom the goods are to be delivered:

- (a) if the goods are sold by weight, weigh the goods in a weighing instrument in the presence of that person;
- (b) if the goods are sold by volume or capacity, measure the goods in a measure of volume or capacity in the presence of that person; or
- (c) if the a goods are sold by linear measure, measure the goods using a measure of length in the presence of that person.

(2) The provisions of subsection (1) above shall not apply to the sale of pre-packaged goods.

PART VI
WEIGHING AND MEASURING EQUIPMENT
(INSPECTION, VERIFICATION AND STAMPING)

Verification of weighing and measuring equipment.

21.(1) All weighing and measuring equipment for use in trade and for any of the purposes prescribed in subsection (2) below shall be:

- (a) subject to pattern approval as specified in section 26 of this Act;

- (b) subject to initial verification in accordance with requirements prescribed by the Minister by Order published in the *Gazette*;
- (c) subject to in-service verification in accordance with requirements prescribed by the Minister by Order published in the *Gazette*;
- (d) subject to verification after repair or modification.

(2) Weighing and measuring equipment for use by and in the Government shall include the following:

- (a) specific prescribed weighing or measuring equipment for use in the field of public health;
- (b) specific prescribed weighing or measuring equipment for use in postal services;
- (c) specific prescribed weighing or measuring instruments for use in the sale of electricity and water;
- (d) specific prescribed weighing or measuring equipment for use in industry, engineering or any other field.

22.(1) The Director shall fix the time and the place for each district or area which a Weights and Measures Inspector shall examine and verify weights and measures and weighing instruments weighing and measuring instruments.

Periodical examination of weights, measures and instruments.

(2) Public notice of the time and place fixed under subsection (1) above for the examination and verification of weights and measures and weighing and measuring instruments shall be given by the Director by notice in two consecutive issues of the *Gazette*, a newspaper in general circulation in Belize, and on a radio and television network operating within Belize.

(3) Every Weights and Measures Inspector shall at the time and place fixed under subsection (1) above, attend and -

- (a) examine in the prescribed manner every weight or measure which is produced for that purpose and compare it with a Working Standard of that weight or measure; and
- (b) examine and test in the prescribed manner every weighing or measuring instrument which is produced for that purpose.

(4) Nothing in subsection (1) above shall be deemed to prevent a Weights and Measures Inspector from examining, comparing or testing any weight or measure or weighing or measuring instrument which is produced for examination at any time or place other than the time or place fixed under that subsection.

(5) No Weights and Measures Inspector shall examine any weight or measure or weighing or measuring instrument under this section, except upon payment of the prescribed fee.

23.(1) A Weights and Measures Inspector who, upon examination under section 23 above, finds any weight or measure or weighing or measuring instrument to be correct, and otherwise in all respects to comply with the provisions of this Act and of any Regulations made thereunder, shall stamp such weight, measure or instrument in the prescribed manner with the prescribed mark of verification.

Stamping of
mark of
verification.

(2) No Weights and Measures Inspector shall stamp with a mark of verification any weight or measure or weighing or measuring instrument which is not correct or which does not comply with any provisions of this Act or any applicable Regulations.

(3) No Weights and Measures Inspector shall stamp any weight or measure with a mark of verification -

- (a) unless such weight or measure is of an authorized denomination; and
- (b) unless he has tested it by comparison with a Working Standard of that weight or measure.

Weights etc., stamped by Inspectors to be legal weights etc., in Belize.

24. Every weight or measure or weighing or measuring instrument which has been duly stamped by a Weights and Measures Inspector under this Act with the prescribed mark of verification shall, unless it is found thereafter to be false or incorrect, be a legal weight, measure or instrument, as the case may be, in any part of Belize.

Pattern approval of weighing and measuring equipment.

25. (1) All weights, measures and weighing and measuring instruments used for purposes of trade and in the fields specified in section 22 (2) above shall be subject to pattern approval on the payment of the prescribed fee, by the Director in accordance with the specification and limits of error as may be specified by Regulations made by the Minister under this Act.

(2) Where on a subsequent examination of any weight, measure or weighing or measuring instrument which has been approved earlier by the Director it is found to be defective, the Director shall have the power to cancel such earlier approval and notify any affected person of such cancellation.

PART VII

PRODUCT QUANTITIES AND PRE-PACKAGED

Sale to be by net weight or measure.

26. (1) No person shall sell any goods by weight or measure unless he does so by net weight or measure.

(2) Subject to the provisions of section 28(2), any person who, in selling or purporting to sell any goods by weight or other measurement or by number, delivers or causes to be delivered to the buyer a lesser quantity than that purported to be supplied or than that which corresponds with the price charged, shall be guilty of an offence.

27.(1) The net weight or measure marked on a container of pre-packaged goods shall be subject to the tests and limits prescribed by Order made by the Minister in the *Gazette*.

Pre-packaged goods.

(2) No person shall sell or expose for sale any goods in a container or pre-package by weight or by measure unless such goods comply with the limits specified in the **Fifth Schedule**.

Fifth Schedule.

(3) Subject to such exemptions as may be prescribed by the Minister by Order in the *Gazette*, no person shall sell any pre-packaged goods by weight or measure unless the net weight or the net measure is marked on the container in the prescribed manner in terms of authorized units of measurement specified in the Third Schedule.

Third Schedule.

(4) Any person who supplies, sells or exposes for sale, goods in a container or pre-package which is so made, formed or filled as to be misleading as to the nature, weight or capacity of the contents thereof shall be guilty, of an offence.

(5) It shall be the duty of any person who is an importer, or a packer of pre-packaged goods, to ensure that such pre-package is marked in the prescribed manner with:

(a) a statement of the quantity contained in terms of authorized units of measurement specified in the Third Schedule;

Third Schedule.

(b) the name and address of the manufacturer, or the packer or the importer, or a mark which enables the manufacturer or the packer or the importer to be readily ascertained and identified.

PART VIII
MANUFACTURE, REPAIR AND SALE OF
WEIGHING AND MEASURING EQUIPMENT

Prohibition of sale, manufacture or repair of any weight, measure, etc., except under licence.

28.(1) No person shall sell, manufacture or repair any weight or measure or any weighing or measuring instrument except under the authority of a licence issued by the Director under this section.

(2) Every person who wishes to obtain a licence under subsection (1) above:-

(a) to repair any weight, measure or weighing instrument shall:

- (i) demonstrate to the satisfaction of the Director his ability or the ability of persons employed by him to repair the type of weight, measure or weighing or measuring instrument which he seeks to repair; and
- (ii) be in possession of such equipment, tools and other facilities as may be required for the proper execution of such repair;

(b) to manufacture any weight, measure or weighing or measuring instrument shall:

- (i) demonstrate to the satisfaction of the Director, his ability or the ability of persons employed by him to manufacture the type of weight, measure or weighing or measuring instrument which he seeks to manufacture;
- (ii) be in possession of such equipment, tools and other facilities as may be required for the manufacture or assembly of such weight, measure or weighing or measuring instrument; and

(iii) submit to the Director for pattern approval such drawings and samples as may be required of such weight, measure or weighing and measuring instrument which he intends to manufacture.

(3) No licence to sell, manufacture or repair weights, measures, and weighing and measuring instruments shall be issued to any person except upon payment of the prescribed fee.

(4) Every licence issued by the Director under this section shall be in the prescribed form, and subject to such conditions as may be attached thereto, shall be in force until such date as maybe specified in the licence.

(5) The Director may revoke any licence issued under this section if the holder of the licence is convicted of an offence under this Act.

(6) Regulations maybe made, prohibiting persons licensed under this section from demanding or accepting, in respect of the repair or adjustment of weights, measures, and weighing and measuring instruments, fees in excess of such maximum fees as may be prescribed by such Regulations.

PART IX

THE NATIONAL METROLOGY SERVICE

29.(1) It shall be the duty of the Bureau of Standards to perform the duties and functions of the National Metrology Service.

Bureau of Standards to perform duties of National Metrology Service.

(2) The Director of the Bureau of Standards appointed under section 4 of the Standards Act shall be the Director of the National Metrology Service for the purposes of this Act.

CAP. 295.

(3) The Minister may, on the advice of the Director, appoint an officer of the Bureau of Standards to be the Chief Inspector of Weights and Measures and such other officers to be Weights and Measures Inspectors (herein referred to as "Inspectors")

(4) The Director may delegate any or all powers conferred on him under this Act to the Chief Inspector of Weights and Measures or to an Inspector.

Use of
unstamped
standards,
etc. by
Inspectors.

30.(1) No Inspector shall use any Working Standard for the purposes of testing any weight or measure at any time after the expiry of a period of two years from the date on which that standard was last stamped as correct under section 7 of this Act.

(2) No Inspector shall use for the purposes of this Act a weighing or measuring instrument which is provided for his use unless that instrument has been verified in the prescribed manner.

Inspectors
not to derive
profit from
making or
selling
weights, etc.

31.(1) No Inspector shall derive any profit from or be employed in the making or selling of weights or measures or weighing or measuring instruments.

(2) Subject as hereinafter provided, no Inspector shall repair, alter or adjust any weight or measure or weighing or measuring instrument:

Provided, however, that where the Director is satisfied that it is desirable that an Inspector should be allowed to adjust weights and measures and weighing and measuring instruments within an area or any district as the case may be, the Director may authorize that Inspector to act in that area or district as adjuster of weights and measures and weighing and measuring instruments.

(3) No Inspector who is authorized under subsection (2) to act as an adjuster of weights and measures and weighing and measuring instruments shall adjust any weight or measure or weighing or measuring instrument except upon payment of the prescribed fee.

32. All fees paid under this Act shall be credited to the account of the Bureau of Standards.

Disposal of fees.

33. Every Inspector shall keep a register in the prescribed form and shall enter such particulars as may be prescribed relating to the performance of his duties under this Act and shall at such times as may be prescribed transmit the register to the Director for examination.

Registers to be kept by Inspectors.

34. Every person designated as an Inspector shall forthwith on his being designated give security in such sum as may be prescribed for the due discharge of the duties of his office, for the due payment of all fees received by him under this Act and for the safety of the Working Standards and stamps and other appliances under his custody and control:

Inspectors to give security.

Provided that the Minister may waive the requirement of provision of security as provided in this section.

PART X
AUTHORITY OF THE NATIONAL METROLOGY SERVICE

35. The Director or the Chief Weights and Measures Inspector or any Inspector may at any reasonable time enter any factory, shop, store, warehouse, shed, land, vehicle or premises in which any weight or measure or weighing or measuring instrument is or is suspected to be kept or used for the purpose of any trade, or any article or goods are offered or exposed for sale and may -

Powers of inspection of Director and officers.

- (a) search for, or require the person for the time being in charge thereof to produce for inspection, all or any weights and measures and weighing and measuring instruments kept therein;
- (b) inspect any weight or measure which is found therein or produced for examination, and compare it with a Working Standard of that weight or measure;
- (c) inspect and test any weighing or measuring instrument which is found therein or produced for examination;
- (d) seize and detain for the purpose of a prosecution for an offence under this Act or any other written law any weight or measure or weighing or measuring instrument which is found upon comparison or test to be incorrect, or which appears to have been, or likely to be, used in contravention of any provision of this Act or such other written law;
- (e) inspect and weigh or inspect and measure, any article or goods which are therein kept, or offered or exposed for sale, in order to ascertain whether the provisions of this Act are being complied with in respect of such article or goods, and seize and detain any article or goods in respect of which or in relation to which a contravention of any provision of this Act has been or is suspected to have been committed;
- (f) require the production of all books, accounts, or documents relating to goods therein and inspect and copy any of those books, accounts or documents; or

- (g) take such samples of any goods and articles therein as may reasonably be required by him for the proper performance of his duties.

PART XI
OFFENCES AND PENALTIES

36. Any person who uses for any trade or have in his possession for use in any trade, any weight or measure which is unmarked with its denomination shall be guilty of an offence and shall on summary conviction be liable to a fine not exceeding one thousand dollars or to imprisonment for a term not exceeding three months or to both such fine and imprisonment.

Use of unmarked weights or measures.

37. Any person who sells or exposes for sale any weight or measure or weighing or measuring instrument which has not been stamped by an Inspector with the prescribed mark of verification shall be guilty of an offence and shall on summary conviction be liable to a fine not exceeding three thousand dollars or to imprisonment for a term not exceeding six months or to both such fine and imprisonment.

Sale of unstamped weights and measures.

38. (1) Any person who uses for the purposes of any trade or has in his possession for use in any trade, any weight or measure or weighing or measuring instrument which has not in the period of twelve months preceding such time been stamped by an Inspector with the prescribed verification mark shall be guilty of an offence and shall be liable on summary conviction to a fine not exceeding three thousand dollars or to imprisonment not exceeding six months or to both such fine and imprisonment.

Use and possession of unstamped weights.

(2) Any person who contravenes the provisions of section 22 in respect of weighing and measuring equipment for use in the fields specified in subsection (2) of that section is guilty of an offence and is liable on summary conviction to a fine not exceeding three thousand dollars or to imprisonment for a term not exceeding six months or to both such fine and imprisonment.

Forgery of stamp or mark used by Inspectors, and tampering with stamped weighing or measuring instruments.

39. Any person who-

- (a) forges or counterfeits any stamp or mark provided under this Act for the use by Inspectors in stamping weights or measures or weighing or measuring instruments; or
- (b) makes, uses, sells, exposes for sale, utters or otherwise disposes of any weight or measure or weighing or measuring instrument bearing any stamp or mark which he knows to be false, forged or counterfeited; or
- (c) removes any mark which has been stamped by an Inspector on any weight or measure or weighing or measuring instrument and inserts such mark on any other weight, measure or weighing or measuring instrument; or
- (d) increases or diminishes a weight or measure which has been stamped or certified by an Inspector under this Act, or tampers with a weighing or measuring instrument which has been so stamped, or uses, sells, exposes for sale, utters for sale, keeps in his possession for use in a trade or otherwise disposes of any weight or measure which he knows to be so increased, diminished or false, or any weighing or measuring instrument which he knows to be tampered with;

is guilty of an offence and is liable on summary conviction to a fine not exceeding three thousand dollars or to imprisonment for a term not exceeding six months or to both such fine and imprisonment.

Use or possession of incorrect weights and measures.

40. Any person who uses for the purposes of any trade, or has in his possession for use in any trade, any weight or measure or weighing or measuring instrument which is not correct, is guilty of an offence and is liable on summary conviction to

a fine not exceeding three thousand dollars or to imprisonment for a term not exceeding six months or to both such fine and imprisonment.

41. Any person who, in any place or area by any means whatsoever, whether direct or indirect, makes any false, incorrect or untrue declaration or statement knowing the same to be false, incorrect or untrue as the case maybe, in relation to the number, quantity, measure, gauge or weight of any goods or articles in connection with their purchase, sale, weighing or measurement, or in the computation of any charges for services rendered on the basis of weight or measure, or who sells, or causes to be sold, or delivers or causes to be delivered, to a purchaser anything by weight or measure short of quantity demanded of or represented by the seller, is guilty of an offence and shall, on summary conviction, be liable to a fine not exceeding three thousand dollars or to imprisonment for a term not exceeding six months or to both such fine and imprisonment.

False, incorrect or untrue declaration or statement.

42. Any person who supplies, sells or exposes for sale any goods in a container or pre-package which is so made, formed or filled as to be misleading as to the nature, weight or capacity of the contents, shall be guilty of an offence and shall on summary conviction be liable to a fine not exceeding three thousand dollars or to imprisonment for a term not exceeding six months or to both such fine and imprisonment.

Deceptive packaging.

43. Whosoever uses any false weight or measure of capacity, or uses any weight or any measure of length or capacity representing it to be a different weight or measure from what it is, is guilty of an offence and shall on summary conviction be liable to a fine not exceeding three thousand dollars or to imprisonment for a term not exceeding six months or to both such fine and imprisonment.

Use of false weight or measure.

44. Any person who is an importer or a packer of pre-packaged goods:

Importing or packing of pre-packaged goods.

- (a) who imports or packs pre-packaged goods in contravention of the requirements of section 27(2); or
- (b) who fails to mark in authorized units on any pre-packaged goods the number and net weight or measure it contains; or
- (c) who fails to indicate the name and address of the manufacturer or the importer or to mark enabling identification of such name and address;

is guilty of an offence and shall on summary conviction be liable to a fine not exceeding three thousand dollars or to imprisonment for a term not exceeding six months or to both such fine and imprisonment.

Selling of unmarked pre-packaged goods.

Third Schedule.

45. Any person who sells or exposes for sale a pre-package or container of pre-packaged goods of which the number, the net weight or measure is not marked on the pre-package or the container in terms of units specified in the **Third Schedule** is guilty of an offence and shall, on summary conviction, be liable to a fine not exceeding three thousand dollars or to imprisonment for a term not exceeding six months or to both such fine and imprisonment.

Repair or manufacture of weights of instrument.

46. Any person who:-

- (a) except under the authority of a licence issued in that behalf under this Act manufacturers or repairs any weight or measure or weighing or measuring instrument; or
- (b) being the holder of such licence, commits a breach of any condition lawfully inserted in the licence;

is guilty of an offence and shall, on summary conviction, be liable to a fine not exceeding one thousand dollars

or to imprisonment for a term not exceeding three months or to both such fine and imprisonment.

47. Any person who refuses to produce a weight or measure or weighing or measuring instrument when required to do so by the Director, the Chief Weights and Measures Inspector or an Inspector lawfully acting in accordance with this Act or who resists or obstructs that person in the lawful exercise of his duties is guilty of an offence and shall, on summary conviction, be liable to a fine not exceeding three thousand dollars or to imprisonment for a term not exceeding six months or to both such fine and imprisonment.

Refusal to produce weight etc., for inspection.

48. Any Inspector who commits a breach of any provision of Part IX or Part X, or of any Regulations relating to the examination, verification or stamping of weights or measures or weighing or measuring instruments is guilty of an offence and shall, on summary conviction, be liable to a fine not exceeding one thousand dollars or to imprisonment for a term not exceeding three months or to both such fine and imprisonment.

Breach by Inspectors.

49. Any person who commits a breach of any provision of this Act or any Regulations made thereunder shall, where no penalty is expressly provided for such breach, be guilty of an offence and be liable to a fine not exceeding five thousand dollars or to a term of imprisonment not exceeding one year, or to both such fine and imprisonment.

General Penalty.

50. Any court may, on the conviction of any person of an offence under this Act relating to any weight or measure or weighing or measuring instrument, make an order declaring that such weight or measure or weighing or measuring instrument shall be forfeited, and every weight or measure or weighing or measuring instrument which is so forfeited shall be disposed of in such manner as may be prescribed by Regulations.

Forfeiture of weights etc.

51. For the purposes of this Act, any weight or measure or weighing or measuring instrument which is found in the possession

Evidence of possession.

of any person who carries on any trade shall be deemed, until the contrary is proved, to be in the possession of that person for use in trade.

Authority for commencing prosecutions.

52. No prosecution shall be instituted against a person for an offence under this Act except by or with the written consent of the Director or the Director of Public Prosecutions.

Principal liable for offences for servants and agents.

53. Where an offence under this Act is committed by an agent or servant of a manufacturer or trader, such offence shall be deemed to have been committed by that manufacturer or trader unless he proves that the offence was committed without his knowledge.

Offence committed by body corporate.

54. Where an offence under this Act is committed by a body of persons, whether corporate or unincorporate, then:-

- (a) if the body of persons is a body corporate, every person who at the time of the commission of the offence was a director, secretary or other officer of that body corporate; or
- (b) if the body of persons is a body other than a body corporate, every person who at the time of the commission of the offence was a member of that body; shall be deemed to be guilty of the offence until he proves that the offence was committed without his knowledge or consent or that he exercised due diligence to prevent the commission of the offence.

PART XII

GENERAL PROVISIONS

Police assistance.

55.(1) The Director, Deputy Director, an Inspector or other person authorised by the Director may request the assistance of a police officer in uniform in the enforcement of the provisions of this Act.

(2) A police officer who is requested to give assistance under subsection (1) shall give such assistance.

56.(1) The Minister may make Regulations for the more Regulations.
effectual working of this Act in respect of the following:-

- (a) the exemption in whole or in part from the provisions of this Act of any undertaking or class of undertaking specified in the Regulations;
- (b) the verification and stamping of weights, measures, weighing or measuring instruments, including the prohibition of stamping in cases where the nature, denomination, material or principles of construction of the weight, measure, weighing or measuring instrument appears likely to facilitate the perpetration of fraud;
- (c) the tests to be applied for the purpose of ascertaining the accuracy and efficiency of weights, measures, and weighing or measuring instruments;
- (d) the limits of error to be allowed on verification and to be tolerated either generally or in respect to any trade;
- (e) the fees that may be paid for examining, verifying or stamping with a stamp of verification any weight, measure, and weighing or measuring instrument;
- (f) the manner in which the value expressed in terms of any weight or measure other than in terms of standard mass or measures may be converted;
- (g) the enabling of Inspectors to carry out their duties under this Act;

- (h) the enforcement of the requirements that relate to weighing or measuring equipment for use for purposes of trade;
- (i) the materials and principles of construction of weighing or measuring equipment which are used for the purposes of trade;
- (j) the purposes for which particular types of weighing or measuring equipment may be used in trade;
- (k) the manner for erecting, sitting or using weighing or measuring equipment for the purposes of trade;
- (l) the quantities in which prescribed pre-packaged goods may be sold;
- (m) the prescribing of anything that is by this Act authorized or required to be prescribed; and
- (n) the carrying out of the provisions of this Act.

(2) Regulations made by the Minister under this section shall be published in the *Gazette* and shall come into operation on the date of such publication or on such later date as may be specified in the Regulations.

Amendment
of
Schedules.

57. The Minister may, by Order published in the *Gazette*, amend the Schedules of this Act by adding or removing any unit of measurement specified therein.

Settlement
of disputes.

58.(1) If any dispute arises between an Inspector and any other person as to the meaning or construction of any regulation or as to the methods to be adopted in testing any weight, measure or weighing or measuring instrument, such dispute shall, be brought to the attention of the Director by either party.

(2) The Director shall consider and investigate the matter and make a decision which decision shall be final and conclusive on questions of fact.

59. A certificate, purporting to be issued by the Director or the Chief Weights and Measures inspector, regarding the condition of any examined weight, measure or weighing or measuring instrument shall, without further proof be admissible in evidence in any court of competent jurisdiction and shall be *prima facie* proof of the facts stated therein.

Certificate of Director or Chief Inspector to be *prima facie* evidence.

60. From the day this Act comes into force, the Weights and Measures Act shall stand repealed.

Repeals. CAP. 295.

FIRST SCHEDULE (Sections 3 and 6)**PART I**
BASE UNIT

<i>Physical Quantity</i>	<i>Name of Unit</i>	<i>Unit Symbol</i>	<i>Definition</i>
Length	Metre	m	The unit for the measurement of length equal to 1 650 763.73 wavelengths in vacuum of the radiation corresponding to the transition between the levels $2p_{10}$ and $5d_5$ of the Krypton-86 atom.
mass	Kilogram	Kg	The unit for the measurement of mass, being a mass, being a mass of the international prototype of the kilogram established in the year 1889 by the first General Conference of weights and Measures deposited at the International Bureau of Weights and Measures.
time	Second	s	The unit for the measurement of time, being the duration of 9 192 631 770 periods of the radiation corresponding to the transition between the two hyperfine levels of the ground state of the caesium-133 atom.
electric current	Ampere	A	The unit for the measurement of electric current, being that constant current, which, if maintained in two straight parallel conductors of infinite length, of negligible circular cross-section and placed one metre apart in vacuum, would produce between these two conductors a force equal to 2

<i>Physical Quantity</i>	<i>Name of Unit</i>	<i>Unit Symbol</i>	<i>Definition</i>
			$\times 10^{-7}$ newton per metre of length.
thermodynamic temperature	Kelvin	K	The unit for the measurement of thermodynamic temperature, being the fraction $1/273.16$ of the thermodynamic temperature of the triple point of water
luminous intensity	Candela	cd	The unit of measurement of luminous intensity, being the luminous intensity, in a given direction of a source which emits monochromatic radiation of frequency 540×10^{12} hertz having a power flux in that direction of $1/683$ watt per steradian.
amount of substance	mole*	mol	The unit for the measurement of the amount of substance of a system which contains as many elementary entities as there are atoms in 0.012 kilogram of carbon 12.

PART II**SUPPLEMENTARY****UNITS**

<i>Physical Quantity</i>	<i>Name of Unit</i>	<i>Unit Symbol</i>	<i>Definition</i>
plane angle	Radian	rad	The unit for the measurement of plane angle, being the angle with its vertex at the centre of a circle and subtended by an arc of the circle that is equal in length to its radius.

* Note: When the mole is used, the elementary entities must be specified and may be atoms, molecules, ions, electrons, the particles or specified groups of such particles.

Physical Quantity	Name of Unit	Unit Symbol	Definition
solid angle	steradian	sr	the unit for the measurement of solid angle, being the angle with its vertex at the centre of a sphere and subtended by an area on the spherical surface equal to that of a square with sides equal in length to the radius.

PART III

SI DERIVED UNITS EXPRESSES IN TERMS OF BASE UNITS

area	square metre	m^2
volume	cubic metre	m^3
speed, velocity	metre per second	$m/s, ms^{-1}$
acceleration	metre per second squared	$m/s^2, ms^{-2}$
wave number	1 per metre	m^{-1}
density, mass density	kilogram per cubic metre	$kg/m^3, kgm^{-3}$

current density	Ampere per square metre	$A/m^2, Am^{-2}$
magnetic field strength	ampere per meter	$A/m, Am^{-1}$
concentration (of amount of substance)	mole per cubic metre	$mol/m^3, mol m^{-3}$
specific volume	cubic meter per kilogram	$m^3/kg, m^3kg^{-1}$
luminance	candela per square metre	$cd/m^2, cdm^{-2}$

PART IV

SI DERIVED UNITS WITH SPECIAL NAMES

Quantity	SI Unit Name	Symbol	Expression in terms of other units	Expression in terms of SI base units
frequency	hertz	Hz	-	s^{-1}
force	newton	N	-	$mkgs^{-2}$
pressure, stress	pascal	Pa	N/m^2	$m^{-1}kgs^{-2}$

Quantity	SI Unit Name	Symbol	Expression in terms of other units	Expression in terms of SI base units
energy, work quantity of				
heat	joule	J	Nm	$\text{m}^2\text{kg}\text{s}^{-2}$
power	watt	W	J/s	$\text{m}^2\text{kg}\text{s}^{-3}$
quantity of electricity charge	coulomb	C	-	SA
electric potential, volts, potential difference electro- motive force	volt	V	W/A	$\text{m}^2\text{kg}\text{s}^{-3}\text{A}^{-1}$
capacitance	farad	F	C/V	$\text{m}^{-2}\text{kg}^{-1}\text{s}^4\text{A}^{-1}$
electric resistance	ohms	Ω	V/A	$\text{m}^2\text{kg}\text{s}^{-3}\text{A}^{-2}$
conductance	seimens	S	A/V	$\text{m}^{-2}\text{kg}^{-1}\text{s}^3\text{A}^2$
magnetic flux	weber	Wb	Vs	$\text{m}^2\text{kg}\text{s}^{-2}\text{A}^{-1}$
magnetic flux density	tesla	T	Wb/m ²	$\text{kg}\text{s}^{-2}\text{A}^{-1}$
inductance	henry	H	Wb/A	$\text{m}^2\text{kg}\text{s}^{-2}\text{A}^{-2}$
luminous flux	lumen	lm	-	cdsr
illuminance	lux	lx	Lm/m ²	m^{-2}cdsr
absorbed dose, specified energy imparted, kerma	Gray	Gy	J/kg	m^2s^{-2}
absorbed dose index	Degree	°C	-	K
celsius temperature	Celsius			

PART V

EXAMPLES OF SI DERIVED UNITS EXPRESSED BY MEANS OF SPECIAL NAMES AND BASE UNITS

Quantity	SI Unit Name	Symbol	Expression in terms of SI base Units
dynamic viscosity	pascal second	Pas	$\text{m}^{-1}\text{kg}\text{s}^{-1}$
moment force	metre newton	Nm	$\text{m}^2\text{kg}\text{s}^{-2}$
surface tension	newton per metre	N/m	kgs^{-2}
Power density, heat flux density, inadiance	wattpersquaremetre	W/m	kgs^{-3}
heat capacity, entropsyh	joule per kelvin	J/K	$\text{m}^2\text{kg}\text{s}^{-2}\text{k}^{-1}$
specific heat capacity, specific entropy	joule per kilogram kelvin	J/(kg.K)	$\text{m}^2\text{s}^{-2}\text{K}^{-1}$
specific energy	joule per kilogram	J/kg	ms^{-2}
thermal conductivity	wattpermetrekelvin	W/(mK)	$\text{mkg}\text{s}^{-3}\text{k}^{-1}$
energy density	joulepercubicmetre	J/m ³	$\text{m}^{-1}\text{kg}\text{s}^{-2}$
electric field strength	volt per metre	V/m	$\text{mkg}\text{s}^{-3}\text{A}^{-1}$
electric charge density	coulombpercubicmetre	C/m ³	m^{-3}As
electric flux density	coulombpersquaremetre	C/m ²	m^{-2}As
permittivity	farad per metre	F/m	$\text{m}^{-3}\text{kg}^{-1}\text{s}^4\text{A}^2$
permeability	henry per metre	H/m	$\text{m}\text{kg}\text{s}^{-2}\text{A}^{-2}$
molar energy	joule per mole	J/mol	$\text{m}^2\text{kg}\text{s}^{-2}\text{mol}^{-1}$
molar entropy, molar heat capacity	joule per molekelvin	J/(mol.K)	$\text{m}^2\text{kg}\text{s}^2\text{K}^{-1}\text{mol}^{-1}$
Exposure (X and Y rays)	coulombperkilogram	C/kg	Kg^{-1}As
Absorbed dose rate	gray per second	Gy/s	M^2s^{-3}

PART VI**PERMITTED UNITS**

Physical Quantity	Name of Unit	Unit Symbol	Definition
time	minute hour day week calendar year	min h d wk yr	1 min = 60 s 1 h = 60 min 1 d = 24 h 1 wk = 7 d 1 yr = 365 d or 366 d (leap year)
plane angular measure	degree minute second	° ' "	1° = $\pi/180$ radian 1' = 1/60 1" = 1'/60
volume of capacity	litre	L	1 L = 1 dm ³
mass	tonne	t	1 t = 1,000 kg
pressure	bar standard atmosphere	bar atm	1 bar = 100 kPa 1 atm = 101.325 kPa
area	are hectare	a ha	1 are = 100 m ² 1 hectare = 10,000 m ²
temperature	degree Celsius	°C	1°C = 1 K (temperature interval)
marine and aerial	nautical mile	nautical mile	1 nautical mile = 1825 m
navigation	knot	knot	1 knot = 1 nautical mile per hour

PART VII**UNITS USED WITH SI IN SPECIALIZED SCIENTIFIC FIELDS**

Name of Unit	Unit Symbol	Value in SI Units
Electron volt	eV	1eV = 1.602 19 x 10 ⁻¹⁹ J
unified atomic mass	u	1u = 1.660 57 x 10 ⁻²⁷ kg
astronomical unit	AU	1AU = 149 597. 87 x 10 ⁶ m
parsec	pc	1 pc = 30 857 x 10 m
angstrom	Å	1Å = 10 ⁻¹⁰ m
barn	b	1b = 10 ²⁸ m ²
curie	Ci	1Ci = 3.7 x 10 ¹⁰ s ⁻¹ (Exactly)
gal	Gal	1 Gal = 4.546 09 dm ³
metric carat*	-	1 metri carat = 200mg*
rontgen	R	1R = 2.58 x 10 ⁻⁴ Ckg ⁻¹

SECOND SCHEDULE (SECTION 3)**PREFIXES * FOR MULTIPLES AND SUBMULTIPLES OF BASE, SUPPLEMENTARY AND DERIVED UNITS OF MEASUREMENT**

Prefix	Symbol	Definition
exa	E	10 ¹⁸
peta	P	10 ¹⁵
tera	T	10 ¹²
giga	G	10 ⁹
mega	M	10 ⁶
kilo	k	10 ³
hecto	h	10 ²
deca	da	10 ¹
deci	d	10 ⁻¹
centi	c	10 ⁻²

Prefix	Symbol	Definition
milli	m	10^{-3}
micro	μ	10^{-6}
nano	n	10^{-9}
pico	p	10^{-12}
femto	f	10^{-15}
atto	a	10^{-18}

* Note: Not to be confused with the carat to expressed the fineness of gold or other precious minerals.

THIRD SCHEDULE (SECTIONS 2, 4, 5, 6, 12, 13, 16, 28 AND 46)

AUTHORIZED UNITS FOR USE IN TRADE

PART I

THE INTERNATIONAL SYSTEM OF UNITS AND OTHER METRIC UNITS

1.1 MEASUREMENT OF LENGTH

1.1.1 SI UNITS

Kilometre (km)	=	1 000 metres
Meter (m)	=	as defined in Part 1 of the First Schedule
Millimetre (mm)	=	1/1 000 meters
Micrometre (m)	=	1/1 000 000 meters

1.1.2 OTHER METRIC UNITS

Nautical mile	=	1 852 metres
Centimetre	=	1/100 metres

1.2 MEASUREMENT OF AREA

1.2.1 SI UNITS

Square metre (m ²)	=	as defined in Part III of the First Schedule
Square kilometre (km ²)	=	1 000 000 square metres
Square millimetre ((mm) ²)	=	1/1 000 000 th of square metre

1.2.2 OTHER METRIC UNITS

Hectare (ha)	=	10 000 square metres
Are (a)	=	100 square metres
Square centimetre ((cm ²))	=	1/10 000 th of a square metre

1.3 MEASUREMENT OF PLANE AND SOLID ANGLE**1.3.1 PLANE ANGLE**

Radian (rad)	=	as defined in Part II of the First Schedule
Degree (°)	=	/180 radians
Minute (')	=	1°/60
Second (")	=	1'/60

1.3.2 SOLID ANGLE

Steradian (sr)	=	as defined in Part II of the First Schedule
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1.4 MEASUREMENT OF SPEED**1.4.1 SI UNITS**

Metre per second (m/s)	=	as defined in Part III of the First Schedule
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1.4.2 OTHER METRIC UNITS

Kilometer per hour	=	10/36 metres per second
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1.5 MEASUREMENT OF VOLUME OR CAPACITY**1.5.1 SI UNITS**

Cubic metre	=	as defined in Part III of the First Schedule
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1.5.2 OTHER METRIC UNITS

Hectoliter (hL)	=	100 litres
Litre (L)	=	1/1 000 th of a cubic metre
Cubic centimetre ((cm ³))	=	1/1 000 000 th of a cubic metre
Decilitre (dL)	=	1/10 th of a litre
Centiliter (cL)	=	1/100 th of a litre
Millilitre (mL)	=	1/1 000 th of a litre

1.6 MEASUREMENT OF MASS**1.6.1 SI UNITS**

Kilogram (kg)	=	as defined in Part I of the First Schedule
Gram (g)	=	1/1000 th of kilogram
Milligram (mg)	=	1/1000 000 th of a kilogram
Microgram (μ g)	=	1/1000 000 000 th of a kilogram

1.6.2 OTHER METRIC UNITS

Tonne (t)	=	1 000 kilogram
Metric carat	=	1/5 th part of a gram

1.7 MEASUREMENT OF DENSITY (MASS DENSITY)**1.7.1 SI UNITS**

Kilogram per cubic metre	=	as defined in Part III of the First Schedule
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1.7.2 OTHER METRIC UNITS

Tonne per cubic metre	=	1 000 kilograms per cubic metre
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1.8 MEASUREMENT OF FORCE**1.8.1 SI UNITS**

Meganewton (MN)	=	1 000 000 newtons
Kilonewton (kN)	=	1 000 newtons
Newton (N)	=	as defined in Part IV of the First Schedule
Millinewton (mN)	=	1/1 000 of a newton

1.9 MEASUREMENT OF PRESSURE AND STRESS**1.9.1 SI UNITS**

Megapascal (MPa)	=	1 000 000 pascals
Kilopascal (kPa)	=	1 000 pascals
Pascal (Pa)	=	as defined in Part IV of the First Schedule

1.10 MEASUREMENT OF LINER DENSITY OF TEXTILES**1.10.1 OTHER METREIC UNITS**

Tex (tex)	=	the mass in grams of one kilometre of yarn
1 g/1 km	=	10^{-6} kg/m
Millitex (mtex)	=	1/1 000 th of a tex
Decitex (dtex)	=	1/10 th of a tex
Kilotex (Ktext)	=	1 000 tex

1.11 MEASUREMENT OF TIME AND FREQUENCY**1.11.1 TIME**

minutes (min)	=	60 s
hour (h)	=	60 mins
day (d)	=	24 h
week	=	7 d
year	=	365 d or 366 d (leap year)

1.11.2 FREQUENCY

Gigahertz (GHz)	=	1 000 000 000 hertz
Megahertz (MHZ)	=	1 000 000 hertz
Kilohertz (kHz)	=	1 000 hertz
Hertz (Hz)	=	as defined in Part IV of the First Schedule

1.12 MEASUREMENT OF TEMPERATURE**1.12.1 SI UNITS**

Kelvin (k)	=	as defined in Part I of the First Schedule
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1.12.2 OTHER METRIC UNITS

degree celsius ($^{\circ}\text{C}$)	=	one kelvin (K)
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The celsius temperature scale is defined by the following equation:

$$t = T - T_0 \text{ where: -}$$

- (i) t – temperature in degree celsius,
- (ii) T – temperature in kelvins
- (iii) $T_0 = 273.15 \text{ K}$.

1.13 MEASUREMENT OF ENERGY AND POWER**1.13.1 ENERGY, WORK AND QUANTITY OF HEAT**

Joule (J)	=	as defined in Part IV of the First Schedule-
Kilojoule (kJ)	=	1 000 joules
Megajoule (MJ)	=	1 000 000 joules and all other multiples and sub-multiples as defined in the Second Schedule
Watt-hour (Wh)	=	3.6×10^3 joules
Kilo watt-hour (kWh)	=	1 000 watt-hour
Electron volt (eV)	=	The energy acquired by an electron in passing through a potential difference of 1 volt in vacuum.

1.13.2 POWER ENERGY FLOW RATE AND HEAT FLOW RATE

Milliwatt (mW)	=	1/1 000 of a watt
Watt (W)	=	as defined in Part IV of the First Schedule-
Kilowatt (kW)	=	1 000 watts
Megawatt (MW)	=	1 000 000 watts and all other multiples and sub-multiples as defined in the Second Schedule

1.14 SPECIFIC ENERGY**1.14.1 SI UNITS**

Kilojoules per kilogram (kJ/Kg)	=	1 000 joules per kilogram
Joule per kilogram (J/Kg)	=	1 joule per kilogram

1.14.2 OTHER UNITS

Joule per gram (J/g)	=	1/1 000 th joules per kilogram
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1.15 ELECTRIC CURRENT**1.15.1 SI UNITS**

Ampere (A)	=	as defined in Part I of the First Schedule
Milliampere (mA)	=	1/1 000 th of ampere
Microampere (μ A)	=	1/1 000 000 th of ampere

1.16. ELECTRIMOTIVE FORCE AND POTENTIAL DIFFERENCE**1.16.1 SI UNITS**

Kilovolt (kV)	=	1 000 volts
Volt (V)	=	as defined in Part IV of the First Schedule
Millivolt (mV)	=	1/1 000 th of a volt
Microvolt (iV)	=	1/1 000 000 th of a volt

1.17 ELECTRIC CAPACITANCE**1.17.1 SI UNITS**

Henry (H)	=	as defined in Part IV of the First Schedule
Millihenry (mH)	=	1/1 000 the of a henry
Microhenry (iH)	=	1/1 000 000 th of a henry

1.18 ELECTRIC REISTANCE**1.18.1 SI UNITS**

Megaohm (MÙ)	=	1 000 000 ohms
Kiloohm (KÙ)	=	1 000 ohms
Ohm (Ù)	=	as defined in Part IV of the First Schedule
Milliohm (MÙ)	=	1/1 000 th of an ohm
Microohm (iÙ)	=	1/1 000 th of an ohm

1.19 QUANTITY OF ELECTRICITY**1.19.1 SI UNITS**

Coulomb (C)	=	as defined in Part IV of the first Schedule
Millicoulomb (mC)	=	1/1 000 th of a coulomb
Microcoulomb ((iC)	=	1/1 000 000 th of a coulomb

1.19.2 other units

Amperehour (Ah)	=	3600 coulombs
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1.20 LUMINOUS INTENSITY**1.20.1 SI UNITS**

Candela (cd)	=	as defined in Part I of the First Schedule
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1.21 ILLUMINATION**1.21.1 SIUNITS**

lux (lu) = as defined in Part IV of the first Schedule

1.22 LUMINOUS FLUX**1.22.1 SIUNITS**

Lumen (lm) = as defined in Part IV of the First Schedule

1.23 ACTIVITY**1.23.1 SIUNITS**

becquerel (Bq) = as defined in Part IV of the First Schedule

Millibecquerel (mBq) = 1/1 000 of a becquerel

1.24 ABSORBED DOSE**1.24.1 SIUNIT**

gray (Gy) = as defined in Part IV of the First Schedule

milligray (mGy) = 1/1 000 of a gray

1.25 EXPOSURE**1.25.1 SIUNITS**

coulomb per kilogram
(C/kg) = as defined in Part IV of the First Schedule

PART 2**THE BRITISH IMPERIAL SYSTEM OF UNITS****1. MEASUREMENT OF LENGTH**

yard	=	0.9144 metre
mile	=	1760 yards
furlong	=	220 yards
chain	=	22 yards
foot	=	$1/3^{\text{rd}}$ of a yard
inch	=	$1/36^{\text{th}}$ of a yard

2. MEASUREMENT OF AREA

Square mile	=	640 acres
Acre	=	4840 square yards
Rood	=	1210 square yards
Perch or square pole	=	$121/4$ square yards
square yard	=	the superficial area equal to that of a square each side of which measures 1 yard.
Square foot	=	$1/9^{\text{th}}$ of a square
Square inch	=	$1/144^{\text{th}}$ of a square

3. MEASUREMENT OF VOLUME OR CAPACITY**3.1 VOLUME IN GENERAL**

Cubic yard	=	a volume equal to that of a cube each edge of which measures 1 yard
Cubic foot	=	$1/27^{\text{th}}$ of a cubic yard
Cubic inch	=	$1/1728^{\text{th}}$ of a cubic foot

3.2 LIQUID MEASURE

Gallon	=	the space occupied by 10 pounds weight of distilled water of density 0.998859 gram per millilitre weighed in air of density 0.001217 grams per millilitre against weights of density 8.136 grams per millilitre.
Quart	=	$1/4$ gallon
Pint	=	$1/2$ quart

Gill	=	¼ pint
Fluid ounce	=	1/20 pint
Fluid drachm	=	1/8 fluid ounce
Minim	=	1/60 fluid drachm
Bushel	=	8 gallons
Peck	=	2 gallons
Chaldron	=	288 gallons

3.3 MEASUREMENT OF MASS OR WEIGHT

Ton	=	2240 pounds
Hundred weight	=	112 pounds
Quarter	=	28 pounds
Stone	=	14 pounds
Pound	=	0.453 592 37 kilogram
kilogram		
Ounce	=	1/16 pound
Dram	=	1/16 ounce
Grain	=	1/7000 pound
Ounce troy	=	480 grains

FOURTH SCHEDULE (SECTIONS 2 and 17)**WEIGHTS AND MEASURES LAWFUL FOR USE IN TRADE****PART I****THE INTERNATIONAL SYSTEM OF UNITS AND OTHER METRIC UNITS****1.1 LINEAR MEASURES**

Measure of	-	100 metres
		50 metres
		30 metres
		20 metres
		10 metres
		5 metres
		3 metres
		2 metres
		1 metre
		1 centimetre
		1 millimetre
		1 micro metre

1.2 SQUARE MEASURES

Measures of, or any multiple of, square decimetre.

1.3 CUBIC MEASURES

Measures of, or any multiple of 1, the cubic decimetre = 0.001 m³

1.4 CAPACITY MEASURES

Measures of 10 litres or any multiple of 10 litres:

5 litres
2 ½ litres
2 litres
1 litre
500 millilitres
250 millilitres

200 millilitres

100 millilitres

50 millilitres

25 millilitres

20 millilitres

10 millilitres

5 millilitres

2 millilitres

1 millilitre

1.5 WEIGHTS

1.5.1 Weights of –

50 kilograms

20 kilograms

10 kilograms

5 kilograms

2 kilograms

1 kilogram

500 grams

200 grams

100 grams

50 grams

20 grams

10 grams

5 grams

2 grams

1 gram

500 milligrams

200 milligrams

100 milligrams

50 milligrams

20 milligrams

10 milligrams

5 milligrams

2 milligrams

1 milligram

1.5.2 weights of –

500 carats (metric)

200 carats (metric)

100 carats (metric)

50 carats (metric)

20 carats (metric)

10 carats (metric)

5 carats (metric)

2 carats (metric)

1 carat (metric)

0.5 carats (metric)

0.25 carats (metric)

0.2 carats (metric)

0.1 carat (metric)

0.05 carats (metric)

0.02 carats (metric)

0.01 carat (metric)

PART 2**THE BRITISH IMPERIAL SYSTEM****2.1 LINEAR MEASURES**

Measures of –

100 feet
66 feet
50 feet
33 feet
20 feet
10 feet
8 feet
6 feet
5 feet
4 feet

1 yard	=	1/10 th of an inch
2 feet	=	1/16 th of an inch
1 foot	=	1/32 of an inch
6 inches	=	1/64 of an inch
1 inch	=	1/100 th of an inch
-----	=	1/128 th of an inch
-----	=	1/256 th of an inch
-----	=	1/1 000 th of an inch

2.2 SQUARE MEASURES

Measures of, or any multiple of, 1 square foot

2.3 CUBIC MEASURES

Measures of, or any multiple of 1/4th cubic yard.

2.4 CAPACITY MEASURES

Measures of –

1 gallon or any multiple of 1 gallon
1/2 gallon

1 quart
1 pint
 $\frac{1}{2}$ pint
8 fluid ounces
6 fluid ounces
4 fluid ounces
1 fluid ounce or sub-multiples of 1 fluid ounce

4 fluid drachms
2 fluid drachms
1 fluid drachm

60 minims
30 minims
10 minims
1 bushel
 $\frac{1}{2}$ bushel
1 peck

2.5 WEIGHTS

2.5.1 Weights of —

56 pounds
50 pounds
28 pounds
20 pounds
14 pounds
10 pounds
7 pounds
5 pounds
4 pounds
2 pounds
1 pound
8 ounces
4 ounces
2 ounces
1 ounce
8 drams
4 drams
2 drams
1 dram
 $\frac{1}{2}$ dram
100 grains
50 grains

30 grains
20 grains
10 grains
5 grains
3 grains
2 grains
1 grain
0.5 grains
0.3 grains
0.2 grains
0.1 grain
0.05 grains
0.03 grains
0.02 grains
0.01 grain

2.5.2 Weights of —

500 ounces troy
400 ounces troy
300 ounces troy
200 ounces troy
100 ounces troy

50 ounces troy
40 ounces troy
30 ounces troy
20 ounces troy
10 ounces troy

5 ounces troy
4 ounces troy
3 ounces troy
2 ounces troy
1 ounce troy

FIFTH SCHEDULE (SECTION 28)**MAXIMUM PERMISSIBLE ERROR IN RELATION TO PACKAGED COMMODITIES****1. Maximum permissible error on net quantity declared by weight or volume**

(a) The maximum permissible error, in excess or in deficiency, in the net quantity by weight or volume of any commodity, is specified in the table below:

TABLE I**Maximum permissible errors on net quantity declared by weight or by volume-**

SI Declared quantity No. g or ml		Maximum permissible error in excess or in deficiency	
		As percentage of declared quantity	g or ml
(i)	up to 50	9	..
(ii)	50 to 100	..	4.5
(iii)	100 to 200	4.5	..
(iv)	200 to 300	..	9
(v)	300 to 500	3	..
(vi)	500 to 1 000	..	15
(vii)	1 000 to 10 000	1.5	..
(viii)	10 000 to 15 000	..	150
(ix)	more than 15 000	1.0	..

(b) The maximum permissible error specified as a percentage shall be rounded off to the nearest one-tenth of a g or ml, for declared quantities less than or equal to 1 000 g or ml, and to the next whole g or ml for declared quantities above 1 000g or ml.

2. Maximum permissible error, in excess or in deficiency, in the net quantity declared in terms of length, area or number of any commodity is specified in Table II below:-

TABLE I

Maximum permissible errors on net quantity declared by length, area or number

SINo. Quantity declared	Maximum permissible error in excess or in deficiency
() in units of length	2% of declared quantity up to 10 meters and thereafter 1% of declared quantity
() in units of area	4% of declared quantity up to 10sq. meters and thereafter 1% declared quantity
() by number	2% of declared quantity