

**ACT**

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*dated 29th July, 2010*

**WEIGHTS AND MEASURES ACT, 2010**

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SIGNED this 22nd day of July, 2010

DR. ERNEST BAI KOROMA,  
*President.*

LS

No. 5



Sierra Leone

2010

**THE WEIGHTS AND MEASURES ACT, 2010**

Short title.

**Being an Act to repeal and replace the Weights and Measures Act, 1961, to authorise and validate the use of the metric system of measurements based on the International System of Units, to provide for the comparison and verification of weights and measures and to provide for other related matters.**

[

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Date of commencement.

ENACTED by the President and Members of Parliament in this present Parliament assembled.

## PART I—PRELIMINARY

Interpretation and construction.

- 1.** (1) In this Act, unless the context otherwise requires—
- “Inspector” includes the Chief Inspector of Weights and Measures;
- “instrument for weighing” includes a balance scale, beam, steel meter, counterpoise and every machine for determining weight;
- “measure” includes any instrument for the measurement of length, area, volume, capacity, temperature, pressure or gravity;
- “Minister” means the Minister responsible for trade;
- “prescribed” means prescribed by regulations made under section 33;
- “Standards Bureau” means the Standards Bureau established by section 3 of the Standards Act, 1996 (Act No. 2 of 1996.)
- “trade” means any contract, bargain, sale or dealing made or had in Sierra Leone for any work, goods, wares or merchandise or thing which has been or is to be done, sold, delivered, carried or agreed for by weight or measure and the collection of tolls or duties charged or collected according to weight or measure.

(2) This Act shall be read and construed together, and accordingly every expression and word used in this Act to which a particular meaning is given by the Standards Act, 1996 for the purposes of this Act has the meaning so given.

## PART II—UNITS OF MEASUREMENT

International System of Units.

- 2.** (1) The units of measurement to be used throughout Sierra Leone shall be the units known as the International System of Units.
- (2) The International System of Units shall comprise—
- (a) the basic units set out in Part I of the First Schedule;

- (b) the supplementary and derived units set out in Part 2 of the First Schedule; and
- (c) the units which may be used in conjunction with the basic, supplementary and derived units as set out in Part 3 of the First Schedule.

(3) Multiples and sub-multiples of each of the units of the International System of Units shall be an integral power of ten (positive or negative) as set out in Part 4 of the First Schedule.

**3.** (1) All measurements shall be made by reference to the International System of Units or their multiples or sub-multiples.

Measurements to be made in International System of Units.

(2) No other units of measurement or their multiples or sub-multiples shall be used.

**4.** (1) The Minister may, authorise the Standards Bureau, as the circumstances may require, to procure or cause to be prepared and maintained a national prototype standards of weights and measure of the units of the International System of Units set out in Part I of the First Schedule.

Primary standards.

(2) The national prototype standards of mass and measure shall be verified and certified in terms of the international prototype standards of mass and measure, maintained and kept by the International Bureau of Weights and Measures, by such means and in such manner as the Minister may determine.

(3) When so verified and certified the national prototype standards shall be the Sierra Leonean Primary Standards of mass and measure by reference to which all standards of mass and measure shall be maintained in Sierra Leone.

(4) The Sierra Leonean Primary Standards of mass and measure shall be in such form and of such material as the Minister may direct and the form, material and place of keeping shall be such as to be, as far as practicable, proof against mechanical and atmospheric agencies and all other sources of error.

(5) The Minister shall also cause to be maintained such weighing machines and other articles as appear to him necessary for giving effect to this section.

Secondary standards.

5. The Minister shall authorise the Standards Bureau to procure or cause to be prepared and maintained, as he thinks fit, secondary standards of mass and measure consisting of all the weights and measures set out in the Second Schedule, and shall cause such secondary standards to be verified from the Sierra Leonean primary standards.

Tertiary standards.

6. The Minister shall authorise the Standards Bureau to procure or cause to be prepared and maintained, such copies of the secondary standards, as he may think fit, and shall cause such copies to be verified as tertiary standards of mass and measure.

Working standards.

7. (1) The Minister may, authorise the Standards Bureau, as he thinks fit, to procure or cause to be prepared and maintained, working standards of weights and measure in such form as may be recommended by the Sierra Leone Standards Bureau, which shall be the Custodian of Weights and Measures and shall verify the working standards by reference to the tertiary standards and cause an indelible mark to be made on such working standards.

(2) The working standards shall be used for the inspection, verification and authentication of all weights and measures as required by this Act, and for such other purposes as the Minister may direct.

Verification to be of standards.

8. (1) The Minister shall cause the primary standards verified at least once in every ten years at the International Bureau of Weights and Measures.

(2) Where the Primary Standards are to be sent out for such verification, the Minister shall cause to be deposited with the Sierra Leone Standards Bureau such secondary standards, as he may consider necessary, after having provided for them to be compared and verified with the primary standards in such manner as he may direct and such secondary standards shall be deemed to be the primary standards during such time as the primary standards are out of Sierra Leone.

(3) The secondary, tertiary and working standards shall be compared and verified by the Sierra Leone Standards Bureau at such intervals and in such manner as the Minister may determine.

(4) On being satisfied of the accuracy of the secondary, tertiary or working standards, as the case may be, the Sierra Leone Standards Bureau shall issue certificates of verification and such certificates shall be retained by the persons who have custody of the relevant standards.

(5) All secondary, tertiary and working standards which have been duly verified and certified shall, for all purposes, be conclusively deemed to be true and accurate and judicial notice shall be taken of every such standard.

(6) The Minister may at any time cancel any secondary, tertiary or working standard and shall by notification in the *Gazette* direct that such cancelled standard shall no longer be used for the purposes of this Act.

9. (1) The primary and secondary standards shall be kept in such place as the Minister may determine in the custody and under the control of the Sierra Leone Standards Bureau, which shall ensure their security in such manner as the Minister may direct. Keeping of standards.

(2) The tertiary standards shall be kept in the custody of the Sierra Leone Standards Bureau and in such manner as the Minister may direct.

(3) The working standards shall be kept in the custody of the Sierra Leone Standards Bureau and such other persons as the Minister may direct.

#### PART III—WEIGHTS AND MEASURES FOR TRADE AND INDUSTRY

10. (1) No person shall—

- (a) use for trade or industry any unit of measurement of length, area, volume, or mass or weight, which is not included in the First Schedule; or
- (b) use for trade or industry, or have in his possession for use for trade or industry, any linear, square or cubic measure which is not included in the Second Schedule or any weight which is not so included.

Weights and measures for use in trade and industry.

(2) Except as may be prescribed and subject to any regulations made under section 33 –

- (a) a linear measure specified in Part I of the Second Schedule may be marked in whole or in part with divisions and subdivisions representing any shorter length or lengths;
- (b) no cubic measure specified in Part 3 of the Second Schedule shall be used for trade or industry by means of any division or subdivision marked thereon as a cubic measure of any lesser quantity.

Marking of weights and measures with denomination.

**11.** (1) Every weight for use for trade or industry shall have the denomination of such weight marked on the top or side thereof in legible figures and letters by the manufacturer:

Provided that where the small size of a weight renders it impracticable to mark such a weight, a certificate shall be supplied by the manufacturer in respect of such weight and the certificate shall be produced to an Inspector on his request and shall contain sufficient particulars to enable the identification and denomination of such weight to be established.

(2) Every measure of capacity for use in trade or industry shall have the denomination thereof marked on the outside of such measure in legible figures and letters by the manufacturer.

(3) A weight or measure not in conformity with this section shall not be stamped with a stamp of verification under section 12.

Stamping, verification and issue of certificates.

**12.** (1) Subject to the provisions of this section, every weight, measure and instrument for weighing or measuring for use in trade or industry shall be verified and stamped by an Inspector with a stamp of verification, and the Inspector shall issue a certificate of verification at the time of stamping:

Provided that where the small size of a weight renders it impracticable for the Inspector to stamp it with his stamp of verification, he may on being satisfied with the identity and denomination of such weight, dispense with stamping and issue a certificate of verification.

(2) A certificate of verification issued under subsection (1), shall remain in force for such period as may be prescribed and shall during that period authorize the use of the weight, measure or instrument for weighing or measuring in any part of Sierra Leone unless it is unjust.

(3) Every person who has in his possession for use for trade or industry any weight, measure or instrument for weighing or measuring shall retain in his possession the certificate of verification issued in respect thereof and shall produce the certificate for inspection whenever required to do so by an Inspector.

(4) Every weight, measure and instrument for weighing or measuring which has been stamped and verified under subsection (1), shall be authenticated within such intervals as the Minister may prescribe.

(5) The verification and stamping or authentication under this section shall be made by reference to a Working Standard.

(6) Where any weight, measure or instrument for weighing or measuring is of such a character as not to be capable of being readily or conveniently brought to an Inspector for the purpose of examination, such Inspector shall upon the written request of the person in possession of the weight, measure or instrument, and on payment by him of the prescribed fees, attend at the premises where it is located and there examine it.

(7) An Inspector shall not verify, stamp, certify or authenticate any weight, measure or instrument for weighing or measuring where–

- (a) it is not in conformity with subsection (1) of section 10 or subsection (2) of section 10; or

- (b) it presents unusual features which do not conform to such pattern or specifications as the Custodian of Weights and Measures may prescribe generally by notice published in the *Gazette*; or
- (c) it contravenes or fails to comply with any of the provisions of this Act or regulations made thereunder.

Lead, pewter and iron weights.

**13.** (1) A weight made of lead or pewter or any of the mixture thereof shall not be verified and stamped with a stamp of verification or certified or authenticated under section 12 nor shall such weight be used for trade:

Provided that this subsection shall not apply where such weight is wholly and substantially cased with brass, copper or iron and legibly marked "cased".

(2) Nothing in this section shall prevent the insertion into a weight of such plug of lead or pewter as is necessary for the purpose of adjusting the weight and affixing thereon the stamp of verification.

(3) An Inspector may refuse to stamp any iron weight or any weight cased with iron unless it has a plug of softer metal upon which to impress or affix the stamp.

Mode of filling measures of capacity.

**14.** (1) A measure of capacity having a portion made of metal or other suitable material, sufficient to bear the stamp of verification, extending from the lower end and having the upper portion made wholly or partially of glass or other transparent material so that the level of the surface of the contents may be clearly seen, and with the level line distinctly marked upon the transparent portion, may be used for measuring liquids and shall be filled to the level of the line so marked.

(2) All measures used for measuring liquids not constructed as described in subsection (1), shall be filled to the level of the brim.

(3) All measures of capacity used for any purpose other than measuring liquids shall either be stricken with a round stick or roller, straight and of the same diameter from end to end, or if the article sold cannot from its size and shape conveniently be stricken, shall be filled in all parts as nearly to the level of the brim as the size and shape of the article will permit.

#### PART IV – ADMINISTRATION

**15.** (1) The Sierra Leone Standards Bureau shall be Custodian of Weights and Measures for the purpose of carrying into effect the provisions of this Act. Custodian of Weights and Measures.

(2) The Minister may by regulations prescribe additional duties and powers of the Sierra Leone Standards Bureau.

**16.** (1) The Director of the Sierra Leone Standards Bureau shall be the Chief Inspector of Weights and Measures and shall be assisted by such number of Inspectors of Weights and Measures as may be necessary for carrying into effect the provisions of this Act. Inspectors of Weights and Measures.

(2) Every Inspector shall make such returns and furnish such information as the Chief Inspector may require and generally shall conform to the directions of the Chief Inspector.

(3) The powers and duties of the Chief Inspector may be exercised and discharged by any Inspector.

(4) The Council may from time to time give the Chief Inspector directions of a general character not inconsistent with the this Act and the Standards Act, 1996 and the Chief Inspector shall give effect to such directions. Act No. 2 of 1996.

**17.** (1) The Chief Inspector shall cause such working standards and instruments for weighing or measuring as he may think requisite to be procured and delivered to the Inspectors and every Inspector shall, at such times and places as the Chief Inspector shall by public notice appoint, attend with his working standards and instruments for weighing and measuring, and examine all weights, measures and instruments for weighing or measuring brought to him. Duties of Inspectors.



(2) An Inspector shall examine every weight and measure which is brought to him for the purpose of verification, and shall compare it with the corresponding working standard.

(3) If he finds it to be just, and not already stamped or marked, he shall stamp or mark it in the prescribed manner.

(4) An Inspector shall also stamp and mark in the prescribed manner any instrument for weighing or measuring brought or submitted to him for examination which he finds to be just and accurate and not already stamped or marked.

(5) Whenever an Inspector stamps, marks, or verifies any weight, measure or instrument for weighing or measuring, he shall enter in a book kept by him particulars of the stamping, marking or verification.

Powers of entry and seizure.

**18.** (1) Every Inspector may, subject to the production if so requested of a certificate of his appointment, at all reasonable times enter any shop, store, warehouse, stall, yard or other place, in which he has reasonable cause to believe that goods are bought, sold, exposed, or kept for sale, or weighed or measured for conveyance or carriage, and may require the production of, and may examine, any weight, measure or instrument for weighing or measuring that may be there.

(2) If on the examination the Inspector has reasonable cause to believe that any such weight, measure or instrument for weighing or measuring is made or used contrary to any of the provisions of this Act or of any statutory instrument made thereunder, he may seize, carry away, and detain it for the purpose of comparing it with a working standard.

#### PART V – OFFENCES

Offences relating to trade and industry.

**19.** Any person who uses in trade or industry, or has in his possession for use in trade or industry, any weight, measure or instrument for weighing or measuring—

- (a) which is false or unjust; or

(b) which is not authorized to be used under section 10; or

(c) which is not marked or certified in conformity with section 11; or

(d) which is not verified, stamped, certified or authenticated in conformity with section 12 or section 13; or

(e) in respect of which, a certificate of verification is not in force,

commits an offence and shall be liable on summary conviction to a fine not exceeding Le5, 000,000.00 or to imprisonment not exceeding twelve months.

**20.** (1) Any person who sells goods, whether on his own behalf or on behalf of another shall, if the goods are packaged or put into containers or are similarly prepared for exhibition or sale, cause both the gross and the net weights or measures to be declared on the package or container.

Offences relating to packaged goods.

(2) Any person required under this section to have the weight or measure of goods declared on the package or container who refuses or neglects to do so as required by this section commits an offence and shall be liable on summary conviction to a term of imprisonment not exceeding two years or to a fine not exceeding Le5,000,000.00.

**21.** (1) Any person who sells goods, whether on his own behalf or on behalf of another, by weight or measure, shall upon being so required by the person to whom the goods are delivered and in the presence of that person –

Failure of seller to weigh or measure.

(a) if the goods are sold by weight, weigh the goods, or

(b) if the goods are sold by measure, measure the goods.

(2) Any person required under this section to weigh or measure any goods who refuses or neglects to do so as required by this section commits an offence and shall be liable on summary conviction to a fine not exceeding Le500,000.00.

Trading without required weights, measures.

**22.** Where in any trade the transaction or dealing is to be determined by weight or measure, a trader in respect of such trade is not in possession of the weights, measures or instruments for weighing or measuring necessary for such trade, commits an offence and shall be liable on summary conviction to a fine not exceeding Le1,000,000.00.

Fraud, forgery, etc.

**23.** Any person who—

- (a) knowingly makes, sells or uses, or knowingly causes to be made, sold or used, any unjust weight, measure, or instrument for weighing or measuring; or
- (b) forges or counterfeits, or causes or procures to be forged or counterfeited, or knowingly assists in forging or counterfeiting, any stamp or mark used for stamping or marking any weight, measure or instrument for weighing or measuring; or
- (c) knowingly sells, disposes of or exposes for sale any weight, measure or instrument for weighing or measuring with any forged or counterfeit stamp or mark thereon; or
- (d) with intent to defraud, alters any weight, measure or instrument for weighing or measuring stamped or marked in accordance with this Act; or
- (e) commits any fraud involving any weight, measure or instrument for weighing or measuring in use for trade or industry,

commits an offence and shall be liable on summary conviction to a term of imprisonment not exceeding five years or to a fine not exceeding Le20,000,000.00.

**24.** Any person who –

- (a) neglects or refuses to produce for examination by an Inspector when lawfully required to do so any certificate, weight, measure, or instrument for weighing or measuring in his possession or custody or on his premises; or
- (b) willfully obstructs or hinders an Inspector in the performance of his duties under this Act,

Obstruction, etc. of Inspectors.

commits an offence and shall be liable on summary conviction to a term of imprisonment not exceeding twelve months or to a fine not exceeding Le5,000,000.00.

**25.** Any Inspector who—

- (a) stamps, marks or certifies any weight or measure without duly verifying it by comparison with the proper Working Standard; or
- (b) repairs, alters or adjusts any weight, measure or instrument for weighing or measuring examined by him,

Offences by Inspectors.

commits an offence and shall be liable on summary conviction to a term of imprisonment not exceeding five years or to a fine not exceeding Le20,000,000.00.

**26.** (1) Where an offence under this Act or under any statutory instrument made thereunder is committed by a body of persons—

Offences by bodies of persons.

- (a) where the body of persons is a body corporate, every director or officer of that body corporate shall be deemed to have committed that offence; and
- (b) where the body of persons is a firm, every partner of that firm shall be deemed to have committed that offence.



(2) No person shall be deemed to have committed an offence under subsection (1), if he proves that the act in respect of which he is charged was committed by some other person without his consent or connivance and that he exercised all such diligence to prevent the commission of that act as he ought to have exercised having regard to all the circumstances.

Seizure and forfeiture.

**27.** (1) Where an Inspector has reasonable cause to believe that an offence under this Act has been committed in respect of any weight, measure or instrument for weighing or measuring he may seize and detain that weight, measure or instrument.

(2) Where the owner of such weight, measure or instrument cannot be found within thirty days after the seizure, that weight, measure or instrument shall be forfeited to the Republic of Sierra Leone.

(3) Subject to subsection (2), any weight, measure or instrument for weighing or measuring in respect of which any offence is committed under this Act may be forfeited to the Republic of Sierra Leone by order of the court.

(4) Any weight, measure or instrument for weighing or measuring which is forfeited to the Republic of Sierra Leone shall be destroyed or otherwise disposed of in such manner as the Chief Inspector may direct.

Evidence as to possession.

**28.** Where any weight, measure or instrument for weighing or measuring is found in the possession of any person carrying on trade or industry, or in or upon the premises of any person, whether in a building or in the open air, and whether open or enclosed, are used for trade or industry, that person shall be deemed for the purposes of this Act, unless the contrary is proved, to have that weight, measure or instrument for weighing or measuring in his possession for use in trade or industry.

#### PART VI—GENERAL

**29.** (1) No weight, measure or instrument for weighing or measuring shall have a greater error than the limits of error prescribed by any regulation made under this Act. Permissible margin of error.

(2) Any weight, measure or instrument for weighing or measuring which is within the prescribed limits of error shall be deemed to be just and true for the purposes of this Act.

**30.** (1) For the purpose of expressing the values of the units of the International System of Units in terms of the values of other units of measurements, Part 1 of the Third Schedule shall have effect. Conversion.

(2) For the purpose of expressing the values of the units of measurement in terms of the values of the units of the International System of Units, Part 2 of the Third Schedule shall have effect.

**31.** (1) Any reference to units of measurement contained in any enactment in force on the commencement of this Act shall be construed by reference to the appropriate units of the International System of Units in accordance with the rates of conversion set out in the Third Schedule. References to units in other enactments.

(2) Without prejudice to the provisions of subsection (1), the Minister may by statutory instrument adapt, amend, convert or modify the provisions of any enactment in order to replace references to units of measurement contained therein by references to the units of the International System of Units in accordance with the rates of conversion set out in the Third Schedule or in such approximation thereto as the Minister may consider necessary or desirable.

**32.** Nothing in this Act shall—

- (a) prevent the sale or subject any person to a penalty under this Act for the sale of anything in any vessel where the vessel is not represented as containing any amount of a measure authorized under this Act, or

Vessels not authorized represented as measures, etc.

- (b) subject a person to a penalty under this Act for the possession of any vessel where it is shown that that vessel is not intended for use as a measure.

Regulations. **33.** The Minister may by statutory instrument make Regulations—

- (a) prescribing the fees to be charged for stamping, marking or verifying weights, measures and instruments for weighing or measuring;
- (b) modifying, amending or revoking any of the provisions of the Schedules to this Act;
- (c) otherwise for carrying into effect the principles and purposes of this Act.

Repeal of Act No. 22 of 1961 and savings.

**34.** (1) The Weights and Measures Act, 1961 is hereby repealed.

(2) Notwithstanding the repeal of the Weights and Measures Act, 1961, the use of any weight or measure authorized by that Act shall be lawful up to the 1st day of January, 2012:

Provided that on and after the 2nd day of January, 2012 only the International System of Units as provided by this Act shall be used.

Act No. 22 of 1961.

## FIRST SCHEDULE

### Part 1

#### S.I. UNITS OF MEASUREMENT—THE BASIC UNITS

<i>Quantity</i>	<i>Name of unit</i>	<i>Unit symbol</i>
Length	metre	m
Time	second	s
Mass	kilogram	kg
Electric current	ampere	A
Thermodynamic temperature	kelvin	K
Luminous intensity	candela	cd

### Part 2

#### SUPPLEMENTARY AND DERIVED UNITS

Plane angle	radian	rad
Solid angle	steradian	sr
Area	square metre	m <sup>2</sup>
Volume	cubic metre	m <sup>3</sup>
Angular velocity	radian per second	rad/s
Angular acceleration	radian per second squared	rad/s <sup>2</sup>
Velocity	metre per second	m/s
Acceleration	metre per second squared	m/s <sup>2</sup>
Frequency	hertz	Hz (1Hz=1s <sup>-1</sup> )
Rotational frequency	reciprocal second	s <sup>-1</sup>
Density	kilogram per cubic metre	kg/m <sup>3</sup>
Momentum	kilogram metre per second	kg.m/s
Angular momentum	kilogram metre squared per second	kg.m <sup>2</sup> /s
Moment of inertia	kilogram metre squared	kg.m <sup>2</sup>
Force	newton	N (N=kg.m/s <sup>2</sup> )
Moment of force	newton metre	Nm
Pressure, stress	newton per square metre	N/m <sup>2</sup>
Kinematic viscosity	metre squared per second	m <sup>2</sup> /s
Dynamic viscosity	newton second per metre squared	Ns/m <sup>2</sup>
Surface tension	newton per metre	N/m
Work, energy	joule	J (J=Nm)
Power	watt	W (W=J/s)
Impact strength	joule per square metre	J/m <sup>2</sup>

<i>Quantity</i>	<i>Name of unit</i>	<i>Unit symbol</i>
Temperature ... ..	degree Celsius ... ..	°C
Temperature interval ...	Kelvin degree Celsius ...	K, °C
Quantity of heat ... ..	joule ... ..	J
Linear expansion co-efficient	reciprocal Kelvin ... ..	K <sup>-1</sup>
Heat flow rate ... ..	watt ... ..	W
Density of heat flow rate ...	watt per square metre ...	W/m <sup>2</sup>
Thermal conductivity..	watt per metre kelvin ...	W/(mK)
Co-efficient of heat transfer ...	watt per square metre ...	W/m <sup>2</sup> K
Heat Capacity ... ..	joule per kelvin ... ..	J/K
Specific heat capacity ...	joule per kilogram kelvin	J/kg K
Entropy ... ..	joule per kelvin ... ..	J/K
Specific entropy ... ..	joule per kilogram kelvin	J/kg K
Specific energy, specific latent heat ... ..	joule per kilogram ... ..	J/kg
Quantity of electricity, electric Charge ... ..	coulomb ... ..	C=As
Volume density of charge, charge density ...	coloumb per cubic metre...	C/m <sup>3</sup>
Surface density of charge ...	coulomb per square metre	C/m <sup>2</sup>
Electric field strength ...	volt per metre ... ..	V/m
Electric tension, potential difference, electromotive force ...	volt ... ..	V=W/A
Displacement (electric) ...	coulomb per square metre	C/m <sup>2</sup>
Electric flux, flux of displacement	coulomb ... ..	C
Electric capacitance ... ..	Farad ... ..	F
Electric permittivity ... ..	farad per metre ... ..	F/m
Electric polarization ... ..	coulomb per square metre	C/m <sup>2</sup>
Electric dipole moment ... ..	coulomb metre ... ..	Cm
Current density ... ..	ampere per square metre	A/m <sup>2</sup>
Linear current density ...	ampere per metre ... ..	A/m
Magnetic field strength ...	ampere per metre ... ..	A/m
Magnetic potential difference	ampere ... ..	A
Magnetic flux density, magnetic induction ... ..	tesla ... ..	T (IT= 1 Wb/m <sup>2</sup> )
Flux of magnetic induction, magnetic flux ... ..	weber ... ..	Wb (1Wb=IVs)
Magnetic vector potential ..	weber per metre ... ..	Wb/m
Self inductance, mutual inductance ... ..	henry ... ..	H (1H= 1Vs/A)
Permeability ... ..	henry per metre ... ..	H/m

<i>Quantity</i>	<i>Name of unit</i>	<i>Unit symbol</i>
Electromagnetic moment, magnetic moment ... ..	ampere metre squared ... ..	A/m <sup>2</sup>
Magnetization ... ..	ampere per metre ... ..	A/m
Magnetic polarization ... ..	tesla ... ..	T
Quantity ... ..	Name of unit... ..	Unit symbol
Magnetic dipole moment ...	Newton metre squared ...	Nm <sup>2</sup> /A
	per ampere or weber metre	Wbm
Impedance, reactance, modulus of impedance ... ..	ohm ... ..	$\Omega$ (=V/A)
Admittance, susceptance, conductance ... ..	reciprocal ohm ... ..	$\Omega^{-1}$
Apparent power ... ..	volt ampere ... ..	$\tilde{V}A$
Reactive power ... ..	Var ... ..	Var
Diffusion coefficient ... ..	square metre per second	m <sup>2</sup> /s
Thermal diffusion co-efficient	square metre per second	m <sup>2</sup> /s
Luminous flux ... ..	lumen ... ..	lm(1 lm=1cdsr)
Luminance ... ..	candela per square metre...	cd/m <sup>2</sup>
Illumination ... ..	lux ... ..	lx (1 lx=lm/m <sup>2</sup> )
Activity of radionuclides ...	reciprocal second ... ..	s <sup>-1</sup>

### Part 3

#### UNITS WHICH MAY BE USED IN CONJUNCTION WITH BASIC UNITS AND SUPPLEMENTARY AND DERIVED UNITS

<i>Quantity</i>	<i>Name of unit</i>	<i>Unit symbol</i>
Time	minute ... ..	min.
	hour ... ..	h
	day ... ..	d
	week .. ..	week
	month .. ..	month
	year ... ..	year
Mass	tonne ... ..	t
	Carat .. ..	carat
Radian	grade .. ..	g
	second .. ..	''
	minute .. ..	'
	degree .. ..	°
Area	hectare ... ..	ha
	are ... ..	a
Volume	litre ... ..	l
Velocity	kilometer per hour ... ..	km/h

Quantity	Name of unit	Unit symbol
Rotational frequency	.. revolution per minute	... r.p.m.
Pressure, stress	... bar	... bar
Viscosity;		
Kinematic	... centistokes	... cSt
Quantity	... Name of unit...	... Unit symbol
Dynamic	... centipoises	... cP
Work, energy...	... kilowatt hour	... kWh
	... Electron volt...	... eV
Activity of radionuclide	... curie	... ci

#### Part 4

#### MULTIPLES AND SUBMULTIPLES OF UNITS OF MEASUREMENT

The names of the multiples and sub-multiples of the units of measurement are formed by means of the following prefixes:

Factor by which the units multiplied	prefix	symbol
10 <sup>12</sup>	tera	T
10 <sup>9</sup>	giga	G
10 <sup>6</sup>	mega	M
10 <sup>3</sup>	Kilo	k
10 <sup>2</sup>	hecto	h
10	deca	da
10 <sup>-1</sup>	deci	d
10 <sup>-2</sup>	centi	c
10 <sup>-3</sup>	milli	m
10 <sup>-6</sup>	micro	μ
10 <sup>-9</sup>	nano	n
10 <sup>-12</sup>	pico	p
10 <sup>-15</sup>	femto	f
10 <sup>-15</sup>	femto	f
10 <sup>-18</sup>	atto	a

#### APPENDIX

##### (i) Definition of Basic Units

*The metre (m):* unit of length. The metre is the length equal to 1,650,763.73 wavelength in vacuum of the radiation corresponding to the transition between the levels 2p<sub>10</sub> and 5d<sub>5</sub> of the krypton -86 atom.

*The second(s):* unit of time interval. The second is the duration of 9,192,631,770 periods of the radiation corresponding to the transition between two hyperfine levels of the ground state of the caesium – 133 atom.

*The kilogram (kg):* unit of mass. The kilogram is equal to the mass of the international prototype of the kilogram.

*The ampere (A):* unit of electric current. The ampere is that constant current which, if maintained in two straight parallel conductors of infinite length, of negligible circular cross-section, and placed 1 metre apart in a vacuum would produce between these conductors a force equal to  $2 \times 10^{-7}$  newton per metre of length.

*The Kelvin (K):* unit of thermodynamic temperature. The Kelvin is the fraction <sup>1/273.16</sup> of the thermodynamic temperature of the triple point of water.

*The candela (cd):* unit of luminous intensity. The candela is the luminous intensity, in the perpendicular direction, of a surface of 1/600,000 square metre of a black body at the temperature of freezing platinum under a pressure of 101,325 newtons per square metre.

##### (ii) Definition of Supplementary Units

*The Radian (rad):* unit of plane angle. The angle between two radii of a circle which cut off on the circumference an arc equal in length to the radius.

*The Steradian (sr):* unit of solid angle. The solid angle which, having its vertex in the centre of a sphere, cuts off an area of the surface of the sphere equal to that of a square having sides of length equal to the radius of the sphere.

#### SECOND SCHEDULE

#### WEIGHTS AND MEASURES FOR USE FOR TRADE AND INDUSTRY

##### Part 1

#### LINEAR MEASURES

Measures of –  
 20 metres  
 10 metres  
 3 metres  
 2 metres  
 1 metre  
 1 decimetre  
 1 centimetre

**Part 2****SQUARED MEASURES**

Any measures of, or of any multiple of, 1 square decimetre.

**Part 3****CUBIC MEASURES**

Measures of –

Any multiple of 10 cubic decimetres

10 cubic decimetres

5 cubic decimetres

2.5 cubic decimetres

2 cubic decimetres

1 cubic decimetre

1,000 cubic centimetres

250 cubic centimeters

200 cubic centimetres

100 cubic centimetres

50 cubic centimetres

25 cubic centimetres

20 cubic centimetres

10 cubic decimetres

5 cubic decimetres

2 cubic decimetres

1 cubic decimetre

**Part 4****WEIGHTS**

(a) For dealings in articles or things other than precious metals and precious stones.

Measures of –

20 kilograms

10 kilograms

5 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

(b) For dealings involving precious metals and precious stones.

Weights of –

500 carats (metric)

200 carats (metric)

100 carats (metric)

50 carats (metric)

20 carats (metric)

5 carats (metric)

2 carats (metric)

1 carat (metric)

0.5 carat (metric)

0.25 carat (metric)

0.2 carat (metric)

0.1 carat (metric)

0.05 carat (metric)

0.02 carat (metric)

0.01 carat (metric)

Note: -1 carat (metric) = 0.2 gm. (exactly)

Passed in Parliament this *10th* day of *June*, in the year of our Lord two thousand and ten.

VICTOR A. KAMARA,  
*Clerk of Parliament.*

THIS PRINTED IMPRESSION has been carefully compared by me with the Bill which has passed Parliament and found by me to be a true and correct printed copy of the said Bill.

VICTOR A. KAMARA,  
*Clerk of Parliament.*