

THE WEIGHTS AND MEASURES ACT, 1982
ARRANGEMENT OF SECTIONS

PART I
PRELIMINARY

- | Section | Title |
|---------|-------------------------------|
| 1. | Short title and commencement. |
| 2. | Interpretation. |

PART II
STANDARDS

- | | |
|-----|---|
| 3. | Units of measurement. |
| 4. | National Standards. |
| 5. | Procurement of Secondary Standards. |
| 6. | Custody of Secondary Standards. |
| 7. | Periodic Verification of Secondary Standards. |
| 8. | Cancellation of Secondary Standards. |
| 9. | Standard equipment. |
| 10. | Working Standards. |

PART III

USE OF WEIGHTS AND MEASURES IN TRADE

- | | |
|-----|---|
| 11. | Weights and measures permitted to be used in trade. |
| 12. | Sale by metric carat weight. |

PART IV

DISTINCTIVE MARKS

- | | |
|-----|---|
| 13. | Stamping of weights and measures with denomination. |
|-----|---|

PART V

ADMINISTRATIVE PROVISIONS

- | | |
|-----|----------------------------|
| 14. | Appointment of employees. |
| 15. | Functions of Commissioner. |
| 16. | Duties of Assizers. |

PART VI

INSPECTION OF WEIGHTS AND MEASURES

- | | |
|-----|---|
| 17. | Appointments of Weights and Measures Committee. |
| 18. | Testing facilities for approval of patterns. |
| 19. | Verification of weights and measures. |
| 20. | Limits of error. |
| 21. | Stamping of verification mark, etc. |
| 22. | Request by assizer to examine, test or retest weight, measure, etc. |

- | <i>Section</i> | <i>Title</i> |
|----------------|---|
| 23. | Rejection of weights, measures, etc. |
| 24. | Illegal stamping. |
| 25. | Restriction on assizer buying, selling or adjusting weights. measurm etc. |

PART VII

SALE OF GOODS BY WEIGHTS AND MEASURES

26. Sale by net weight only, etc.
27. Exceptions.
28. Assizer may weigh or measure pre-packed goods.
29. Presumption of nature of goods.
30. Weighing, etc.. operations to be m the presence of purchaser.
31. Safeguards to traders.

PART VIII

OFFENCES AND PENALTIES,

32. Falsely representing a pattern to be an approved pattern,
33. Offences in connection with the office of Assizer.
34. Forgery of stamps on weights and measures.
35. Use of unauthorized weights or measures m trade.
36. Use of false or unjust instrument.
37. Making or selling unjust weights. measures. etc.
38. Sale of unstamped instrument.
39. Fraud in, use of weight. measure, etc..
40. Obstructing assizers. etc.. in the performance of their duties.
41. prohibition of giving short weight, measure or number,
42. False declaration as to weight.
43. Sides by unauthorized denominations.
44. Attempt& and aiding or abetting.
45. General Penalty.
- 46, Power to compound Offences.

PART IX

MISCELLANEOUS AND SUPPLEMENTARY PROVISIONS

47. Evidence of possession.
48. Power of entry.
49. Judicial notice of document.
50. Forfeiture.
51. Acts of ommission by managers, agents or employees,
52. Burden of proof.
53. Saving of civil remedies.
- 54. Regulations.
55. Repeal and Savings.



No. 20 OF 1982

I ASSENT,

President

2nd OCTOBER, 1982

An Act to revise and consolidate the law relating to weights and measures and to provide for the introduction of the International System of Units (SI) and for related matters

[.....]

ENACTED by the Parliament of the United Republic of Tanzania.

PART I

PRELIMINARY

1. This Act may be cited as the Weight and Measures Act, 1982, and shall come into operation on such date as the Minister may, by notice published in the *Gazette*, appoint.

short title
and
commence-
ment

- I (1) In this Act, unless the context requires otherwise
- "approved pattern" means a pattern of any weighing or measuring instrument approved by the Minister;
- "assizer" means a Weights and Measure Officer appointed under section 14 of this Act, and also, means the Commissioner and the Assistant Commissioner
- "Commissioner" means the Commissioner of Weights and Measures appointed under section 14 of this Act;
- "Committee" means the Weights and Measures Committee appointed under section 17;
- "container" means any form of packaging of goods for sale as a single item, whether by way of wholly or partly enclosed the goods or by attaching the goods around some other articles, and includes a wrapper or confining band
- "correct" in relation to a weight, measure, weighing instrument, means correct within such limits of error and with such sensitiveness as may be prescribed;

Interpreta-
tion

- "custodians" means the custodians of the secondary standards referred to in section 6;
- "error" in reference to means instrument included deficiency in sensitiveness;
- "General Conference" means the General Conference of Weights and Measures from time to time convened by the International Bureau of Weights and Measures;
- "International Bureau" means the International Bureau of Weights and Measures established by the Metric Convention-
- "International System of Units" -SI" means the system of units referred to in Section (3) of this Act;
- "human food" includes every article used for food or drink by man;
- "just" means any weight, measure, weighing or measuring instrument which does not have an error greater than the prescribed limits of error;
- "measuring instrument " includes any instrument for the measurement of length, capacity, volume, superficial area or and includes any measuring instrument constructed to calculate and indicate the value in mom-y-;
- "metric carat weight" has the meaning assigned to it in the Eighth Schedule;
- "metric System " means the base. supplementary, derived and special or permitted units of the International System of Units;
- "Minister" means the Minister for the time being responsible for trade;
- "National Standards" means the National Reference Standard, of weight and measure maintained by the Tanzania Bureau of Standards under section 4 of the Standards Act, 1975;
- "net weight" means the weight of any good excluding the weight of its container;
- "premises" includes any place whether open or enclosed, and any stall, vehicle, shop or aircraft;
- "pre-packed means made up in advance ready for or kept for or stored for retail sale in or on a containing
- "prescribed" means prescribed by regulations made under this Act;
- "purchaser" includes any person acting on behalf of the purchaser;
- "quantity" includes any measurement of distance, length, width, height. area, size, volume, capacity. mass or number,
- "Secondary Standards" means the Standards referred to in section 5 of this Act:
- "Sell" includes offer, advertise, expose, keep, have in possession, or prepare for sale and to exchange or dispose of for valuable consideration, and cognate expressions shall be construed accordingly;
- "Ship" includes any boat or any other description of vessel used on navigation;

"stamping" includes casting, engraving, etching, branding or otherwise marking, in such manner as to be, so far as practicable, indelible, and the expression "stamp" and other expressions relating to it shall be construed accordingly;

"Tanzania Bureau of Standards" means the Tanzania Bureau of Standards established under section 3 of the Standards Act, 1975;

Acts 1975
No. 3

"trade" includes any contract, bargain sale, dealing and generally any transaction for valuable consideration in pursuance of which goods are weighed, measured or counted but does not include any contract or bargain for sale of or dealing in land or interest in land;

"valid" in relation to stamp borne by any weight, measure, weighing or measuring instrument, means a stamp that is still in force according to any Period which may be prescribed and cognate expressions shall be construed accordingly;

"Verification." means examination testing, passing as fit for use for trade and stamping any weight, measure, weighing or measuring instrument;

"weighing or measuring instrument" means weight or measure, or any instrument for weighing or measuring in terms of units of mass, length, area, volume, capacity or number, whether or not the equipment is constructed to give an indication of the measurement made or other information determined by reference to that measurement;

"weight" means mass;

"working standards" means standards which, standardised by Comparison with secondary standards, are kept for the purpose of verifying trades, weighing or measuring instruments, weight or measure.

(2) The Minister may, by order published in the *Gazette* exempt any person, trade or industry from all or any of the application of this Act.

PART II

STANDARDS

3.-(1) Without prejudice to the powers of the Tanzania Bureau of Standards to set standards, the International System of Units (SI) shall be a system of measurement by reference to which any measurement in trade shall be made in the United Republic,

(2) The International System of Units shall consist of

(a) the base units set out and defined in the First Schedule;

(b) the supplementary units set out and defined in the Second Schedule;

(c) units derived from the base and supplementary units: and defined in the Third Schedule;

(d) any special and permitted units that may be used in conjunction with units mentioned in paragraph (a.) to (c) as adopted by the General Conference and referred to in the Fourth Schedule.

First
Schedule
Second
Schedule
Third
Schedule
Fourth
Schedule

| | |
|---|--|
| Fifth Schedule | (3) The SI prefixes for multiples and sub-multiples of the units referred to in subsection (2) are those set out and defined in the Fifth Schedule and include such prefixes for multiples and sub-multiples and defined by the General Conference from time to time. |
| Seventh Schedule | (4) Thus seventh Schedules shall have the effect for the purposes of defining the units of measurement set out in the schedule and for the purpose of any measurement of weight, that weight may be expressed, by reference to the unit of measurement set out in Part V of the Seventh Schedules in the same terms as its mass. |
| English Standards | (5) The Eighth Schedule shall have effect for the purpose of defining the physical weights and measures that shall be used for the purpose of trade in the United Republic. |
| National Schedule | (6) The Minister may, by order, amend any of the Schedules referred to in section 4. (1) The prototype copies of the International Standards of the KILOGRAMME and METRE together with any prescribed Standards representing SI Base units as defined in the First Schedule hereto procured and maintained by the Tanzania Bureau of Standards shall, for the procurers of the National Standards. (2) Without prejudice to the provisions of the Standards Act, 1975, the Tanzania Bureau of Standards shall for the purposes of this Act be the procurers National Standards. |
| Procurement of secondary standards | 5-(1) the Minister shall- (a) procure and cause to be maintained copies of national standards and the weight and measures specified in the Eighth Schedule; (b) provide for the initial verification of any copies so procured; and (c) cause the verified copies to be authenticated as secondary standards the manner he may prescribe from time to time. (2) A secondary Standard of linear or capacity measure may, as the Minister may think fit (a) provided either as a separate standard or by means of divisions on a larger standard measure; and (b) either marked in whole or in part with sub-divisions representing any smaller unit of measurement of multiples or sub-multiples of. unit or have no such markings. |
| Custody of secondary Standards | 6. The Commissioner shall be responsible for the proper care maintenance and custody of the Secondary Standards except that the conditions of their custody may be determined by the Minister |
| Periods verification of secondary standards | 7. Once in every two years the Minister shall cause each of the Secondary Standards referred to in subsection (1) of section 5 to (1) be compared with the National Standards and if necessary be corrected and adjusted by the Tanzania Bureaus of Standards |

or any other competent institution as the Minister may direct, but such reverification, shall be witnessed by two wardens appointed by him, one of whom shall be Commissioner; and

(2) bear a certificate of correctness signed by the wardens and the institution so appointed by the Minister.

8. The Minister may, on the advice of the Commissioner, cancel any Secondary Standard and direct that it be no longer used".

Cancellation
of secondary
standards

9. The Minister shall procure and cause to be maintained standard equipment which he may from time to time determine as being proper and necessary for the verification of standards of weight and measures

Standards
equipment

10.- (1) Every assizer shall be provided with proper and sufficient working standard of weight and measures which shall be used for assizing or re- assizing of weight or measures or instruments in use for purpose of trade

Working
standards

(2) Once at least in every twelve months an assizer shall compare the working standards, which have been in use during the past twelve months, with the Secondary Standards, and, if necessary be corrected and adjusted before signing a certificate prescribed in paragraph (b) of the Ninth Schedule to this Act.

(3) The Minister may at any time cancel any working standard and direct that it no longer be used.

(4) Judicial notice shall be taken of every working standard and each such standard shall be deemed to be true and accurate until the contrary is proved.

PART III

USE OF WEIGHTS AND MEASURES IN TRADE

11-(1) Unless otherwise permitted by this act, every contract, bargain sale or dealing made or had after the commencement of this Act whereby any work, goods, wares, merchandise or other thing is or are to be, or is or are done, sold, delivered carried measured, computed, paid for or agreed for by weight or measure, shall be made and had according to one of the relevant units or measurement specified in the First, Second, Third, Fourth, Sixth, Seventh and Eighth Schedule to this Act or to some multiple thereof, and if not so made or had, shall, so far as it is to be performed in the United Republic, be void:

Weights
and
measures
to be
used in
trade

Provided that a court may, in exceptional circumstances in the interest of justice, direct that a person who has received an advantage under such contract, bargain, sale or dealing so declared to be void shall restore it or make compensation for it to the person from whom it was received.

(2) All tolls and duties charged and collected according to weight or measure shall be charged and collected according to one of the relevant units of measurement specified in the First, Second, Third, Fourth, Sixth, Seventh and Eighth Schedules or to some multiple of the units.

(3) Such contract, bargain, sale, dealing and collecting of duties mentioned in this section are in this Act referred to under the term "trade".

Sale by
metric carat
weight

12.-(1) Subject to subsection (2), no person shall use the carat unit for purposes of trade except in transaction relating to precious stones or pearls.

(2) The restrictions set out in this section do not apply to any transaction affecting the export of goods to a country where a system of units of measurement other than those authorized by this Act is used for purposes of trade.

PART IV

DISTINCTIVE MARKS

Stamping
of weights
and
measures
with
denomina-
tion

13.-(1) No person shall at any time after the end of twelve months from the commencement of this Act use or have in his possession for use in trade-

- (a) any weight which, except where the small size of the weight renders it impracticable, does not have its denomination stamped on the top or side thereof in legible figures and letters; or
- (b) any measure or length or capacity which does not have its denomination stamped on the outside thereof in legible figures and letters.

(2) Any weight or measure mentioned in subsection (1) of this section shall not be stamped by an assizer with a prescribed verification mark.

(3) Any person who contravenes the provisions of subsection (1) shall be guilty of an offence

(4) Nothing of subsection (1) shall apply to any weight or measure where the user of such weight or measure, has applied and obtained an exemption from the Minister.

PART V

ADMINISTRATIVE PROVISIONS

Appoint-
ment of
employees

14. The Minister shall, by notice published in the *Gazette*, appoint any public officer to be the Commissioner of Weights and Measures and may appoint such number of Assistant Commissioners and Assizers of Weights and Measures as he may consider necessary for the proper administration of this Act.

15. The Commissioner shall be the chief executive officer of weights and measures and shall-

Functions
of Com-
missioner

- (a) have the general supervision and control of the work of assizers; and
- (b) be responsible for the verification or reverification of all weights, measures, weighing or measuring instruments used or intended to be used for trade in the United Republic.

16. The duties of an assizer shall be-

Duties of
Assizers

- (a) to carry out verification of weights, measures, weighing and measuring instrument;
- (b) to care for and maintain any working standards which may be entrusted to his care;
- (c) to keep records and make such reports as the Commissioner may require.
- (d) to give effect to the directions of the Commissioner-, and'
- (e), generally to exercise such other Powers and duties as may be conferred or imposed by this or any other Act or by regulations made under this Act.

PART VI

INSPECTION OF WEIGHT AND MEASURES

17.-(1) The Minister may, by order published in the Gazette-appoint a Weights and Measures Committee, consisting of not less than five and not more than seven persons.

Appoint-
ment of
Weight and
Measures
Committees

(2) Such Committee shall be convened as often as, may be necessary and the Minister. or some other person deputed by him, shall be the Chairman of the Committee.

(3) The duties of the Committee shall be to advise *the* Minister upon any matter arising out of the operation of the Act, which the Minister may refer to the Committee for advise.

18.-(1) The Minister shall provide and maintain adequate facilities for testing prototype weights, measures,, weighing or measuring instruments for use for trade.

Testing
facilities
for approval
of patterns

(2) No weight, measure, weighing or measuring instrument " be verified, stamped or authorized for use for trade unless--

- (a) it is of a pattern approved by the Minister. or
- (b) it is of a class or kind exempted by regulation from the provisions of this Act..

(3) Any person who fails to comply with the provisions of " section shall be guilty of an offence.

19.-(1) (a) Not more than once in every twelve months in respect of an area of jurisdiction, an assizer shall by notice published in the Gazette, and where re it is necessary, by such other means as will in the opinion of the assizer, ensure the contents thereof coming to

Verifica-
tion of
weights
and
measures

the notice of those who are concerned specify such dates, times and places as he thinks fit, and require all persons who have in their possession any weight, measure, weighing or measuring instrument which is used or intended to be used in trade, to produce at such time and place within the area as he may appoint.

(b) Every such weight, measure, weighing or measuring instrument shall be examined and verified by the assizer.

(2) An assizer shall attend with his working standard at such times and places fixed and, on the prescribed fee being paid, shall examine and verify every weight, measure, weighing and measuring instruments brought to him for the purpose; except that an assizer may also verify a weight, measure, weighing or measuring instruments at any other time or place within his area of jurisdiction, or as may be authorized by the Commissioner.

(3) Where a weight, measure, weighing or measuring instrument is of delicate construction and or cannot conveniently be moved it shall be sufficient for the purposes of this section if the person who has the same in his possession for use or intended use in trade notifies the assizer in writing of its nature and position instead of producing it to the assizer.

(4) When a measure of capacity made of glass, earthenware or enamelled metal has been stamped it shall not be necessary to produce such measure, unless the original stamp is defaced or has become illegible or the measure has been chipped or cracked.

(5) Any person who contravenes or fails to comply with the provisions of any notice issued by an assizer under this section shall be guilty of an offence.

Limits
of error

20. Any weight or measure which is in accordance with the standard weight or measure which it represents or which has no greater error than the prescribed limit of error shall be deemed to be just and true unless it be shown to the satisfaction of the court that such weight, measure, weighing instrument or measuring instrument has been tampered with in such a way as to facilitate the commission of fraud.

Stamping
of verification
mark, etc.

21.—(1) Subject to the provisions of this Act, every weight, measure, weighing instrument or measuring instrument used or intended to be used in trade and found to be just shall, if not already stamped, be stamped with the prescribed verification mark in such manner so as to prevent fraud; except that an assizer may refuse to stamp weight cased with iron unless it is fitted with a plug of softer metal suitable for stamping.

(2) Where any dormant equipment which is required to be stamped only after it has been installed at the place where it is to be used for trade, if, after the equipment has been so stamped, is in any way removed or dismantled and re-installed whether in the same or some other place it shall not be used for trade after being so re-installed until it has been re-tested and re-stamped by an assizer.

22.-(1) An assizer may at any time request any person having in his possession or control any weight, measure, weighing instrument or measuring instrument which is used or intended to be used for trade to submit it to him at such time and place as the assizer may specify for the purpose of examination and testing or re-testing of that instrument.

Request by assizer to examine, test or re-test weight measure, etc

(2) Any person who fails to comply with the request of an assizer under this section shall be guilty of an offence.

23. An assizer who on test finds a weight, measure, weighing instrument or measuring instrument to be false, unjust or to be not in compliance with the provisions of this Act or any regulations made under this Act shall-

Rejection of weight, measure etc

- (a) reject it,
- (b) mark it with the prescribed rejection mark;
- (c) issue to the person in charge of such instrument a rejection note in the prescribed form to the effect that it has been rejected;

Provided that the assizer may in his discretion-

- (a) adjust it;
- (b) return it to the owner for adjustment; or
- (c) retain it with a view to proceedings being taken for its forfeiture

24. No assizer shall stamp with the Prescribed verification mark any weight or measure-

Illegal stamping

- (a) which is not just;
- (b) which does not comply with the provisions of this Act or any regulations made under this Act except -n so far as any discretion may be vested in the assizer or in any other person by the Act or regulations to waive such compliance;
- (c) which is not of the denomination of a weight or measure specified in the Eighth Schedule to this Act,
- (d) without testing by comparison with the appropriate working standard.

25. No assizer shall, while he holds office, be employed in or derive any profit from the making, buying, selling or adjusting of weights, measures, weighing instrument or measuring instruments; except that an assizer may while carrying out the duties of his office adjust weights, measures, weighing instrument and measuring instrument **and** for any such adjustment charge the prescribed fee for his service

Restriction on assizer buying, selling or adjusting weights measures etc.

PART VII

SALE OF GOODS BY WEIGHTS AND MEASURES

sale by net weight of measure only, etc.

26.-(1) Subject to the provisions of section 27. no person shall-

- (a) sell or offer, expose, keep on trade premises, carry or in any manner advertise, for sale, any of the goods specified in the Tenth Schedule to this Act otherwise than by net weight or measure and in a denomination specified in the Eighth Schedule. or in a multiple or aliquot part of any such denomination; or
- (b) sell or offer, expose, keep on trade premises. carry or in any manner advertise, for sale. any goods of the kinds and sold in the manner. if any, specified in the first column of the Eleventh Schedule otherwise than m weight or measure specified in relation to such goods in the second column of that Schedule; or
- (c) sell or offer, expose. keep an trade premises, carry or in any manner advertise, for sale pre-packed goods of the kinds specified n the Twelfth Schedule Unless the wrapper or container bears on it, or on label securely attached to it, a conspicuous and legible statement of the net weight or measure of such goods.

(2) Any person who contravenes or fails to comply with the provisions of paragraphs (a), (b) or (c) of sub-section. (1) shall be guilty of an offence.

Exceptions

27. Nothing in section 26 shall apply to-

- (a) the sale of human food for consumption on or at the premises of the seller; or
- (b) the sale of any goods in quantities not exceeding 50 grams or 50 mililtre, or at a price, not excelling five shillings

Provided that the Minister may by order vary the quantity of goods to be sold and the price specified m paragraph (b) of this section.

Assizer may weigh or measure, pre-packed

28. Where any person has in his possession for ale or delivery any goods of a kind required by the provisions of this Act to be sold by weight or measure, or any goods m respect of which any representation of weight or measure is made, he shall-

- (a) cause such goods to be weighed or measured in the presence of the assizer or permit the assizer to weigh or measure them-,
- (b) if necessary for this purpose, break open or permit the assizer to break open any wrapper or container in which such goods are packed; and
- (c) if so requested by the assizer sell such goods to the assizer

29.-(1) In any proceedings under this Act, the description of any goods in any complaint, charge or information shall be prima-facie evidence that the goods were, at the time of the offence and subsequently, so as described, and the burden of proving the contrary shall lie upon the accused. Presumption
of nature
of goods

(2) Where any goods are found on any trade Premises such goods shall be presumed to be for sale or to be carried for sale and the burden of proving the contrary shall lie upon the accused.

30.(1) Any person who contravenes or fails to comply with the provisions for the purpose of retail sale of any goods to a purchaser shall-

- (a) cause the weighing or measuring instrument used for that purpose to be so placed; and
- (b) conduct the operation of weighing or measuring as to permit the purchaser a clear and unobstructed view of such weighing instrument or measuring instrument and all the indications of weight or measure pertaining to such operation.

weighing
etc,
operations
to be in the
presence of
purchaser

(2) Any person who contravenes or fails to Comply With the provisions of this section shall be guilty of an offence and shall be liable on conviction to a fine not exceeding two thousand shillings.

31.-(1) In any proceedings under this Act in respect of an alleged deficiency of weight or measure of any goods mentioned in this Act or any Order made under this Act, it shall be a defence for the person charged to prove to the satisfaction of the court that--

safeguards
to traders

- (a) the commission of the offence was due to a mistake or to an accident or some other cause beyond his control; and
- (b) all reasonable steps were taken by him to prevent the occurrence of such deficiency of those goods by himself or any person under his control*

provided that it shall not be a defence under this subsection for the person charged to prove that the commission of the offence was due to some cause beyond his control if that cause could reasonably have been foreseen.

(2) In any proceedings Under this Act or order made under this Act, in respect of an alleged deficiency of weight or measure of any goods, the court shall disregard any inconsiderable variation in the weight or measure of a single article, and shall have regard to the average weight or measure of other articles of the same kind if any sold or delivered by the accused or in his possession for the purpose of sale or delivery on the same occasion and generally to all the circumstances of the case.

(3) In any Proceedings under this Act, the weight or measure of any article shall be deemed to be correct if it is within the permitted limits of error prescribed for such article by regulations made under this Act.

PART VIII

OFFENCE AND PENALTIES

Falsely
representing
be an
approved
pateem of

32. Any person who falsely represents, either directly or indirectly, that a pattern Of weight, Measure, weighing or measuring instrument is a pattern approved to be suitable for use for trade, shall be guilty of an offence.

offences In
connection
with the
office of
assizer

33.-(1) Any assizer who--

- (a) stamps any weighing or measuring instrument in contravention of any provisions of this Act or of any order made under the Act or without duly testing it; or
- (b) knowingly commits any breach of duty imposed on him by or under this Act or otherwise misconducts himself in the execution of his office,

shall be guilty of an offence.

- (2) If any person who is not an assizer acts as or purports to act as an assizer he shall be guilty of an offence.

IF-gory of
stamps on
weights and
measures

34.-(1) Any person who, in the case of any weighing or measuring instrument used or intended to be used for trade--

- (a) not being an assizer or a person acting under the instructions of an assizer, marks in any manner any plug or seal used or designed for use for the reception or a stamp; or
- (b) forges, counterfeits or, except as permitted by or under this Act.- in any way alters or defaces any stamp; or
- (c,) removes any stamp and inserts it into any other such instrument; or
- (d) makes any alteration in the instrument after it has been stamped such as to make it false or unjust,

shall be guilty of an offence:

Provided that paragraphs (a) and (b) of this subsection shall not apply to the destruction or obliteration of any stamp, plug or seal in the course of the adjustment or repair of weighing or measuring instrument by a licensed repairer-

(2) Any person who uses for trade, sells or exposes or offers for sale any weighing or measuring instrument which to his knowledge-

- (a) bears a stamp which is a forgery or counterfeit, or which has been transferred from other instrument, or which has been altered or defaced, otherwise than as permitted under this Act; or
- (b) is false or unjust as a result of an alteration made in the instrument after it has been stamped,

shall be guilty of an offence.

(3) Any weighing or measuring instrument in respect of which an offence under this section is committed, and any stamp or stamping implement used in connection with the offence, shall be liable to be forfeited.

35.-(1) Any person who uses or has in his possession for use in trade any weight, measure, weighing or measuring instrument the Use of which for such trade is not authorized by this Act or is in contravention of the provision of this Act or any regulations made under this Act, or which is false or unjust or which is not stamped with the prescribed verification mark, shall be guilty of an offence.

Use of unauthorized weights or measuring in trade

(2) Notwithstanding the provisions of subsection (1), the Commissioner may, where he is satisfied that in any area of the United Republic insufficient staff or facilities exist for the testing of weights, measures, weighing or measuring instruments in accordance with the provisions of this Act, in writing in such form as may be prescribed and on such term, and subject to such conditions as he may think fit, authorize any person in such area to use or have in his possession for use in trade any weight, measure, weighing or measuring instrument which is not stamped with the prescribed verification mark for a period not exceeding six months or until such weight, measure, weighing or measuring instrument is verified in accordance with the provision of this Act, whenever is the less.

36. Any person who uses or has in his possession for use in trade, or hires out, permits or condones the use for trade of any weight, measure, weighing or measuring instrument which is false or unjust, shall be guilty of an offence, and any such instrument shall be liable to be forfeited.

Use of false or unjust instrument

37. Any person who willfully or knowingly makes or sets or causes to be made or sold, any false or unjust weight, measure, weighing or measuring instrument, shall be guilty of an offence.

Making or selling unjust weights, measures etc

38.-(1) Any person who uses, exposes or has in his possession for sale any weight, measure, weighing or measuring instrument which does not bear a valid verification stamp of a date not earlier than one year previous to such use, sale or exposure or possession for sale, shall be guilty of an offence:

Sale of unstamped instrument

Provided that this subsection shall not apply to weighing or measuring instrument which when made, were not intended or designed for use for trade and which were permanently and clearly marked on a conspicuous part thereon with the words "NOT FOR TRADE USE".

(2) Any weight, measure, weighing or measuring instrument made or sold in contravention of the provisions of this section shall be liable to be forfeited.

Fraud in use of weight, measure, etc,

39. Where fraud is knowingly committed in the use of a weight, weighing or measuring instrument, the person committing the fraud and every person who is a part to the fraud is guilty of an offence and in addition to any penalty the court imposes, the weight, measure, weighing or measuring instrument shall be liable to be forfeited.

Prohibition assizers, etc in the Performance of their duties

40. A person who-

- (a) assaults, resist, hinders or obstructs an assizer entering any place mentioned in section 48; or
- (b) hinders or obstructs an assizer in the performance of his duties under this Act; or
- (c) fails to comply with any request made by an assizer in the performance of his duties under, this Act; or
- (d) bribes or attempts to bribe an assizer = connection with any matter arising from the exercise on. performance of his duties under this Act. or
- (e) being an assizer, accepts or attempts to solicit any bribe in connection with any matter arising in the performance of his duties under this Act; or
- (f) uses indecent, abusive or insulting language to an assizer in the exercise of his duties under this Act,

shall, be guilty of an offence.

Prohibition of giving short weight, measure or number

41. Any person who-

- (a) in selling any article by weight, measure or number delivers or causes to be delivered to the purchaser a less weight measure or number, as the case may be, than is purported to be sold; or
- (b) in trade dealing by means of words, writing or conduct makes any false representation as to the number, gauge, weight, measure or quantity of any goods or things,

shall be guilty of an offence.

42.-(1) Any person who by means of words, description or other indication, direct or indirect, makes any false declaration or statement or misleads any person as to the true weight, measure, gauge, class or grade of any article sold by him, shall be guilty of an offence.

(2) Where an article is purchased by weight or measure the weight or measure of it is determined by the purchaser at or before the time of sale and the purchaser by means of words, description or other indication, direct or indirect, makes to the seller or his agent

a, false declaration or statement or, misleads the seller or his agent to the true: weight or measure of the article the purchaser" shall be guilty of an Offence.

43. Any person who sells or exposes for sale by any denomination of weight or measure other than the denominations Of Weight measure authorized by section 3 shall be quilty of an offence.

sales by
unauthorized
denomina-
tion

44. Any person who attempts to commit or who aids or abets an Offence against this Act shall, himself be guilty of the same offence.

Attempts
and aiding or
abetting

45.-(1) Any person who contravenes the provisions of this Act or regulation made tinder this Act shall be guilty Of an offence and Shall be liable on conviction in the case of a first offence to a tine not exceeding ten thousand shillings or to imprisonment for a term not exceeding three years, or to both such tine and imprison. ment; and in the case of a second or subsequent offence to a fine not exceeding twenty thousand shillings or to Imprisonment for a term not exceeding seven years or to both such fine and imprisonment.

General
Penalty

(2) Where any person is convicted of any offence against this Act and the court by which he is convicted is of the opinion that Such offence was committed with intent to defraud, such person shall no I able in addition to or m lieu Of any, penalty to imprison- ment for a term not exceeding three years.

46.-(1) The Commissioner or Assistant Commissioner may, where he is satisfied that any person has committed an offence under sections 22 (2). 26 (1) (a), 34 (J), (2). 36, 41 and 42 or under any regulations made under this Act, by order, compound such offence by requiring such person to make payment of a sum money, except that-

power to
compounds
offences

- (a) such sum of money shall not be less than five hundred shillings
- (b) the Commissioner or Assistant Commissioner shall give to the Person from whom he receives such sum of money, a receipt;
- (c) the Commissioner or Assistant Commissioner may- ask the court to forfeit any weight or measure or weighing or measuring instrument or other item for which the offence was committed as directed by or under this Act or any regulations made under this AM

(2) Where an offence is compounded with the provi. sion of subsection (1) and any proceedings are brought against the offender for 04-, same offence, it shall be a good defence for such offender to, prove to the satisfaction of the court that the offence with which he is charged has been compounded under section (1).

(3) Where any person is aggrieved by any order made under sub- section (1), he may. within thirty days of such order being made, appeal against such order to a higher court and the Provision of

Part X of the Criminal Procedure code shall apply with the necessary changes, to every such appeal as if it were an appeal against a sentence passed by a district court in the exercise of its original jurisdiction.

PART IX

MISCELLANEOUS AND SUPPLEMENTARY PROVISIONS

Evidence of
possession

47. Where any weight, measure, weighing or measuring instrument is found-

- (a) in the possession of a person carrying on trade; or
- (b) on the premises used for trade, of any person-
 - (i) whether or not such premises are a building or in the open air; or
 - (ii) whether or not such premises are open or enclosed,

that person shall be deemed for the purposes of this Act until the contrary is proved, to have such weight, measure, weighing or measuring instrument in his possession for use for the purposes of trade.

Power of
possession

48.-(1) An assizer, may at all reasonable times-

- (a) enter into premises where he has reasonable cause to believe there is any weight, measure, weighing or measuring instrument which is in use for trade and may inspect such weight, measure, weighing or measuring instrument or part of such equipment which he has reasonable cause to believe is used contrary to the provisions of this Act;
- (b) seize and detain any weight, measure, weighing or measuring instrument or part of such equipment which he has reasonable cause to believe is used contrary to the provisions of this Act;
- (c) enter any premises in which he has reasonable cause to believe any goods are being sold or kept for sale, delivery and may inspect and weigh or measure any of such goods;
- (d) order any person delivering any goods to stop and may inspect and weigh or measure such goods;
- (e) for the purposes of paragraph (a) and (b) use any verified or re-verified instrument, weight or measure available at the premises where such goods are being inspected;
- (f) order the seller or purchaser of any goods to produce for inspection, and if he thinks it necessary, seize and detain any invoice, delivery note or other record kept by such seller or purchaser;
- (g) order any person mentioned in subsection (d) to-
 - (i) provide sufficient labour for handling and weighing of any goods under this section;

(d) give his name and address or his employers' name and address, if any.

(2) Any person who fails to comply with any order made in terms of this section shall be guilty of an offence.

(3) When exercising any powers conferred by this section, an assizer shall, produce a written authority from the Commissioner.

49. A document purporting to be signed by an assizer and certifying that a weighing or measuring instrument specified therein was inspected or examined and compared with the standard by him on a specified date and the finding of his examination or inspection shall be received in any court on production by any person and without further proof as *prima facie* evidence of the facts therein stated.

Judicial
notice of
documents

50. All weights, measures, weighing or measuring instruments forfeited under this Act shall be dismantled and the material thereof may be sold or otherwise disposed of as the court may direct.

Forfeiture

51.-(1) Whenever any manager, agent or employee of any person (herein referred to as principal) does or omits to do an act which could be an offence under this Act for such principal to do or omit to do, then, unless notice is given to the Commissioner that all reasonable steps were taken by the principal to prevent that act or omission of the kind in question, the principal shall be presumed to have done or omitted to do that act and, be liable to be convicted and sentenced in respect thereof.

Acts or
omission
managers
agents or
employees

(2) Whenever any manager, agent or employee of a principal does or omits to do any act which would be an offence under this Act to do or omit to do, he shall be liable to be convicted and sentenced in respect thereof as if he were the principal.

52.-(1) In any proceedings under this Act in which it is necessary in order to establish the charge against a person to prove that a notice or any other means, under section 19 (1) in respect of any weighing or measuring instrument, has been complied with, such instrument, shall be presumed, unless the contrary is proved, at all relevant times to have been used in trade by that person in the area to which the notice in question relates.

Burden of
proof

(2) Where any goods are found on any premises which are used by any person for trade those goods shall, unless the contrary is proved, be deemed, for the purpose of this Act, to be in or on that place or vehicle for sale.

53. No proceedings or conviction under this Act shall affect any right or remedy under any other written law.

Saving of
civil
remedies

Regulations

54.-(1) The Minister may make regulations prescribing all matters that by this Act are required or permitted to be prescribed or are necessary or convenient to be prescribed for carrying out or giving effect to this Act, including, in particular provisions for, or with respect to-

- (a) the exemption in whole or part from the provisions specified in the regulations;
- (b) the procedure for examination or verification or stamping of weights, measures, weighing or measuring instrument, including the prohibition of stamping in cases when the nature, denomination, materials or principle of construction, of the weight, measure, weighing or measuring instrument appears likely to facilitate the perpetration of fraud;
- (c) the general specifications for instruments suitable for use for trade including prohibition of approved patterns that are unsuitable for further use in trade;
- (d) the manner of identification of any instrument by its approved pattern;
- (e) the manner or marking of any, instrument suitable for use in trade
- (f) the test to be applied for the purpose of ascertaining the accuracy and efficiency of weights, measures or measuring instruments;
- (g) the limits of error, to be allowed verification and tolerated either generally or with respect to any trade or goods;
- (h) the fees that may be demanded by assizers for examining, verifying or stamping with a stamp of verification on any weight, measure, weighing or measuring instrument
- (G) the manner in which the value expressed in terms of any weight or measure other than in terms of standard weight or measure may be converted;
- (k) the enabling of assizers to carry out their duties under this Act; and prohibiting any person while so employed by the Weights and Measures Bureau from deriving any personal profits from adjusting, buying, selling, repairing, overhauling or installing any weights, measures, weighing or measuring instruments;
- (i) the purpose for which particular types of weighing or measuring instrument may be used for purpose of trade;
- (m) the manner of erecting, or using weights, measures. measures of capacity, weighing or measuring instrument used-for purposes of trade;

- (n) the circumstances in which, conditions under which and manner in which stamp or marks placed on weights, measures weighing or measuring instrument may be obliterated or defaced;
- (o) the registration of public weigh-bridges and their weighmen;
- (p) the procedure to be followed before issuing a certificate for pattern approval;
- (q) the manner or quantities in which pre-packed goods, *food* stuffs may be packed; or sold in the market. or shops;
- (r) the system of regulating and authorizing persons proposing, to engage themselves in the repairing, overhauling and installation of any weights, measures, weighing or measuring instruments and the fee to be charged for such registration, examination or authorization;
- (s) the manner under which weights or measures, weighing or measuring instruments used in industries may be checked and stamped;
- (t) the specifications, forms, and manner in which verification stamps, rejection stamps, date stamps and other forms of stamps may be made, used and maintained by the assizer;
- (u) the specifications of standard equipment necessary to carry out the provisions of this Act; and the manner in which standard equipment shall be used and verified *by* the assizer;
- (v) the exemption from the provisions of this Act to any contract made or effected with a view to the exportation of any goods from the United Republic of Tanzania;
- (w) the period of the validity of verification stamps on various types of weighing or measuring instrument;
- (x) prescribing the manner in which indications of weights or measures shall be marked on pre-packed goods required by the provisions of. this Act to be so marked;
- (y) making additions to or removals from or otherwise vary the items contained in the Tenth, Eleventh and Twelfth Schedules to this Act;
- W prescribing the permitted limits of error in the weight or measure of any goods specified in the Tenth, Eleventh and Twelfth Schedules-
- (aa) requiring all or any weights and measures to be constructed with distinctive shape or appearance;

- (ab) conferring .-, upon assizer or upon a particular assizer or assizers any of the powers and duties which are by this Act conferred or imposed upon the Commissioner;
- (ac) prescribing anything that is by this Act authorized- or required to be prescribed generally for better carrying into effect any of the purposes of this Act.

(2) Regulations made under this section may fix penalties for the breach of such regulations not exceeding the penalties contained in section 45 of this Act.

Repeal and savings

55.-(1) The following enactments are repealed

- (a) The Weights and Measures Ordinance, 1960;
- (b) The Sale of Goods (Weights and Measures) Ordinance, 1960;
- (c) The Weights and Measures (Metric System) Act, 1968; and
- (d) The Metric System (Amendment of Written Laws) Act, 1969.

(2) Notwithstanding the provisions of subsection (1) of this section.

- (a) where, prior to the date upon which this Act comes into operation, any weight or measure has been stamped by an inspector with a verification mark under the provisions of the Weights and Measures Ordinance hereby repealed. such weight or measure as the case may be, shall be stamped with a prescribed verification mark for the purposes of this Act; and
- (b) any standards procured or provided by the Minister under the provisions of the Weights and Measures Ordinance hereby repealed, being standards which the Minister is authorized or required to procure or provide under the provisions of this Act, shall be deemed to have been procured and verified or provided and authenticated, as the case may be, under the provisions of this Act;
- (c) any subsidiary legislation made under any of the enactments repealed by this Act and in force immediately prior to the coming into operation of this Act shall, so far as it is not inconsistent with the provisions of this Act. continue in force as if made under this Act;
- (d) any orders, directions, appointments and other acts lawfully made or done under a provision of the enactments repealed and, in force immediately before the commencement of this Act shall be deemed to have been made or done under the corresponding provision of this Act and shall continue to have effect accordingly.

FIRST SCHEDULE

BASE UNIT OF SI

The base units of the SI are defined as follows:—

| <i>Physical Quantity</i> | <i>Name of unit</i> | <i>Unit symbol</i> | <i>Definition</i> |
|------------------------------------|---------------------|--------------------|---|
| 1. 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. |
| 2. mass ... | ... kilogram ... | kg ... | the unit for the measurement of mass, being a mass of the international prototype of the kilogram established in the year 1889 by the First General Conference and deposited at the International Bureau. |
| 3. time ... | ... second ... | s ... | the unit for the measurement of time, being the duration of 9 192 631 770 periods of the radiation corresponding to transition between the two hyperfine levels of the ground state of caesium—133 atom. |
| 4. electric current | ampere ... | A ... | the unit for the measurement of electric current, being constant current, that, 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 conductors a force equal to 2×10^{-7} newton per metre of length. |
| 5. 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. |
| 6. luminous intensity | ... candela ... | cd ... | is the unit of measurement of luminous intensity, in a given direction of a source that emits monochromatic radiation of frequency 540×10^{12} Hz and of which radiant intensity in that direction is $1/683$ watt per steradian. |

FIRST SCHEDULE—(contd.)

| <i>Physical Quantity</i> | <i>Name of unit</i> | <i>Unit symbol</i> | <i>Definition</i> |
|--------------------------|---------------------|--------------------|---|
| 7. 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. |

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

SECOND SCHEDULE

SUPPLEMENTARY UNITS OF SI

The supplementary units of the SI are defined as follows:—

| <i>Physical Quantity</i> | <i>Name of unit</i> | <i>Unit symbol</i> | <i>Definition</i> |
|--------------------------|---------------------|--------------------|---|
| 1. 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. |
| 2. 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. |

THIRD SCHEDULE

DERIVED UNITS OF SI

A derived unit means a unit derived only from the base units set out and defined in the First Schedule or the supplementary units set out and defined in the Second Schedule or both by the process of multiplication or division or both without the introduction of any co-efficients, unity, excepted. The derived units of SI are defined as follows:—

| <i>Physical Quantity</i> | <i>Name of unit</i> | <i>Unit symbol</i> |
|---------------------------|---|---|
| area | ... square metre | ... m ² |
| volume or capacity | ... cubic metre | ... m ³ |
| speed | ... metre per second | ... m/s or m.s ⁻¹ |
| acceleration | ... metre per second per second or metre per second squared... | ... m/s ² or m.s ⁻² |
| wave number... .. | ... reciprocal metre | ... 1/m or m ⁻¹ |

THIRD SCHEDULE—(contd.)

| DERIVED UNITS OF SI | | | | | |
|---|--|-----|-----|-------------|--|
| Physical Quantity | Name of unit | | | Unit symbol | |
| mass density | kilogram per cubic metre | ... | ... | ... | kg/m^3 or kg. m^{-3} |
| concentration | mole per cubic metre | ... | ... | ... | mol/m^3 or mol. m^{-3} |
| angular speed | radian per second | ... | ... | ... | rad/s or rad. s^{-1} |
| angular acceleration | radian per second per second or radian per second squared | ... | ... | ... | rad/s^2 or rad.s^{-2} |
| electric resistance | ohm | ... | ... | ... | $\Omega = \text{V.A}^{-1}$ |
| electric capacitance | farad | ... | ... | ... | $\text{F} = \text{A.s.V}^{-1}$ |
| electric conductance | siemens | ... | ... | ... | $\text{S} = \text{A.V}^{-1}$ |
| magnetic flux | weber | ... | ... | ... | $\text{Wb} = \text{V.s}$ |
| magnetic flux density, magnetic induction | tesla | ... | ... | ... | $\text{T} = \text{Wb.m}^{-2}$ or V.s.m^{-2} |
| inductance (self and mutual) | henry | ... | ... | ... | $\text{H} = \text{Wb.A}^{-1}$ |
| electric charge density | coulomb per cubic metre | ... | ... | ... | C.m^{-3} |
| electric field strength | volt per metre | ... | ... | ... | V.m^{-1} |
| surface charge density | coulomb per square metre | ... | ... | ... | C.m^{-2} |
| permittivity | farad per metre | ... | ... | ... | F.m^{-1} |
| force | newton | ... | ... | ... | $\text{N} = \text{kg.m.s}^{-2}$ |
| power | watt | ... | ... | ... | $\text{W} = \text{J.s}^{-1}$ or $\text{kg.m}^2.\text{s}^{-3}$ |
| moment of inertia | kilogram metre squared | ... | ... | ... | kg.m^2 |
| frequency | hertz | ... | ... | ... | $\text{Hz} = \text{s}^{-1}$ |
| entropy, heat capacity (at constant pressure and constant volume) | joule per kelvin | ... | ... | ... | J/K. or J.K^{-1} |
| electric charge, quantity of electricity | coulomb | ... | ... | ... | $\text{C} = \text{A.s}$ |
| electric potential, electromotive force, electric potential difference | volt | ... | ... | ... | $\text{V} = \text{kg.m}^2.\text{s}^{-3}.\text{A}^{-1}$ |
| activity (of a radioactive source) | one per second | ... | ... | ... | $1/\text{s}$ or s^{-1} |
| thermal conductivity | watt per metre kelvin | ... | ... | ... | $\text{J.s}^{-1}.\text{m}^{-1}.\text{K}^{-1} =$ $\text{W.m}^{-1}.\text{K}^{-1}$ |
| specific volume | cubic metre per kilogram | ... | ... | ... | $\text{m}^3.\text{kg}^{-1}$ |
| pressure | pascal | ... | ... | ... | $\text{Pa} = \text{kg.m}^{-1}.\text{s}^{-2}$ |
| moment of force, torque, work, energy, quantity of heat | joule | ... | ... | ... | $\text{J} = \text{kg.m}^2.\text{s}^{-2}$ |
| dynamic viscosity | pascal second | ... | ... | ... | $\text{Pa.s} = \text{kg.m}^{-1}.\text{s}^{-1}$ |
| kinematic viscosity | metre squared per second | ... | ... | ... | $\text{m}^2.\text{s}^{-1}$ |
| surface tension | newton per metre | ... | ... | ... | $\text{N.m}^{-1} = \text{kg.s}^{-2}$ |
| magnetic field strength | ampere per metre | ... | ... | ... | A.m^{-1} |
| electric current density | ampere per square metre | ... | ... | ... | A.m^{-2} |

THIRD SCHEDULE—(contd.)

DERIVED UNITS OF SI

| Physical Quantity | Name of unit | Unit symbol |
|--|--|--------------------------------------|
| permeability | henry per metre | $H.m^{-1}$ $= kg.m.s^{-2}.A^{-2}$ |
| molar entropy, molar heat capacity (at constant volume and constant pressure) | joule per kelvin mole | $J.K^{-1}.mol^{-1}$ |
| molar energy, molar enthalpy | joule per mole | $J.mol^{-1}$ |
| magnetic moment | ampere square metre | $A.m^2$ |
| conductivity | siemens per metre | $S.m^{-1}$ |
| radiant intensity | watt per steradian | $W.sr^{-1}$ |
| radiance | watt per steradian square metre | $W.sr^{-1}.m^{-2}$ |
| radiant existance irradiance... .. | watt per square metre | $W.m^{-2}$ |
| luminance | candela per square metre | $cd.m^{-2}$ |
| luminous flux | lumen | $lm=cd.sr$ |
| illuminance | lux | $lx=lm.m^{-2}$ |

FOURTH SCHEDULE

SPECIAL OR PERMITTED UNITS OF SI

These are internationally—agreed units which are deviations from strict SI. They are permitted either because of their practical importance or because of their use in specialised scientific fields.

The units may be used together with SI units and their multiples and sub-multiples.

The names of the permitted units, the physical quantities they represent, their unit symbols and definitions are listed hereunder:—

| Physical Quantity | Name of Unit | Unit Symbol | Definition |
|--------------------------------|----------------------------|-------------|-----------------------------------|
| I. time | minute | min | 1 min = 60 s |
| | hour | h | 1 h = 60 min |
| | day | d | 1 d = 24 h |
| | week | wk | 1 wk = 7 d |
| | Calendar year | yr | 1 yr = 365 d or 366 d (leap year) |
| II. plane angle | degree | ° | $1^\circ = (\pi/180)$ radian |
| | minute | ' | $1' = (1/60)^\circ$ |
| | second | " | $1'' = (1/60)'$ |
| III. volume or capacity | litre | l | 1 l = 1 dm ³ |
| IV. mass | tonne | t | 1 t = 1 000 kg |
| V. pressure | bar | bar | 1 bar = 100 000 Pa. |
| | standard atmosphere | atm | 1 atm = 101 325 Pa. |
| VI. area | are | a | 1 are = 100 m ² |
| | hectare | ha | 1 hectare = 10 000 m ² |

FOURTH SCHEDULE—(contd.)

SPECIAL OR PERMITTED UNITS OF SI

| Physical Quantity | Name of unit | Unit symbol | Definition |
|-------------------------|----------------|---------------|---------------------------------|
| VII. temperature ... | degree Celsius | °C | 1°C=1K |
| VIII. marine and aerial | nautical mile | nautical mile | 1 nautical mile=1 852m |
| aerial navigation | knot | knot... | 1 knot=1 nautical mile per hour |

FIFTH SCHEDULE

PREFIXES FOR MULTIPLES AND SUB-MULTIPLES OF SI UNITS

The Prefixes *for multiples and sub-multiples of the base, supplementary and derived units of SI set out and defined in the First to Fourth Schedule are as follows:—

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

*Not applicable to the base unit "kilogram" but applicable to the one thousandth sub-multiple thereof, namely the "gram".

SIXTH SCHEDULE

UNITS TO BE USED IN SPECIALISED SCIENTIFIC FIELDS

| Name of Unit | Unit Symbol | Definition |
|---------------------|-------------|---|
| electronvolt | eV | 1 eV=1.602 10 × 10 ⁻¹⁹ J |
| unified atomic mass | u | 1 u=1.660 44 × 10 ⁻²⁷ kg |
| astronomical unit | AU | 1 AU=149 600 × 10 ⁶ m |
| parsec | pc | 1 pc=3 086 × 10 ¹³ m |
| angstrom | Å | 1 Å=10 ⁻¹⁰ m |
| barn | b | 1 b=10 ⁻²⁸ m ² |
| curie | Ci | 1 Ci=3.7 × 10 ¹⁰ s ⁻¹ (exactly) |
| gal | Gal | 1 Gal.=10 ⁻² metre per second, per second |
| metric carat | CM | 1 metric carat=2 × 10 ⁻⁴ kg |
| rad | rd | 1 rd=10 ⁻² J.kg ⁻¹ |
| roentgen | R | 1R=2.58 × 10 ⁻⁴ C.kg ⁻¹ |

SEVENTH SCHEDULE

DEFINITIONS OF UNITS OF MEASUREMENT

PART I

Measurement of Length

| | | | | | |
|------------|-----|-----|-----|-----|--|
| kilometre | ... | ... | ... | ... | ... = 1 000 metres. |
| metre | ... | ... | ... | ... | ... = as defined in the First Schedule |
| decimetre | ... | ... | ... | ... | ... = 1/10 metre. |
| centimetre | ... | ... | ... | ... | ... = 1/100 metre. |
| millimetre | ... | ... | ... | ... | ... = 1/1 000 metre. |

PART II

Measurement of Area

| | | | | | |
|-------------------|-----|-----|-----|-----|---|
| hectare | ... | ... | ... | ... | ... = 100 are |
| decare | ... | ... | ... | ... | ... = 10 are. |
| are | ... | ... | ... | ... | ... = 100 square metres. |
| square metre | ... | ... | ... | ... | ... = A superficial area equal to that of a square each side of which measures one metre. |
| square decimetre | ... | ... | ... | ... | ... = 1/100 square metre. |
| square centimetre | ... | ... | ... | ... | ... = 1/100 square decimetre. |
| square millimetre | ... | ... | ... | ... | ... = 1/100 square centimetre. |

PART III

Measurement of Volume

| | | | | | |
|------------------|-----|-----|-----|-----|---|
| cubic metre | ... | ... | ... | ... | ... = A volume equal to that of a cube each edge of which measures one metre. |
| cubic decimetre | ... | ... | ... | ... | ... = 1/1 000 cubic metre. |
| cubic centimetre | ... | ... | ... | ... | ... = 1/1 000 decimetre. |

PART IV

Measurement of Capacity

| | | | | | |
|------------|-----|-----|-----|-----|---|
| hectolitre | ... | ... | ... | ... | ... = 100 litres |
| litre | ... | ... | ... | ... | ... = The capacity equal to that of a cube each edge of which measures 1 decimetre. |
| decilitre | ... | ... | ... | ... | ... = 1/10 litre |
| centilitre | ... | ... | ... | ... | ... = 1/100 litre |
| millilitre | ... | ... | ... | ... | ... = 1/1 000 litre |

PART V

Measurement of Mass or Weight

| | | | | | |
|---------------------|-----|-----|-----|-----|---|
| metric ton or tonne | ... | ... | ... | ... | ... = 1 000 kilogram |
| quintal | ... | ... | ... | ... | ... = 100 kilograms |
| kilogram | ... | ... | ... | ... | ... = Unit of Mass as defined in the First Schedule |
| hectogram | ... | ... | ... | ... | ... = 1/10 kilogram |
| gram | ... | ... | ... | ... | ... = 1/1 000 kilogram |
| carat (metric) | ... | ... | ... | ... | ... = 1/5 gram |
| milligram | ... | ... | ... | ... | ... = 1/1 000 gram |

SEVENTH SCHEDULE—(contd.)

DEFINITIONS OF UNITS OF MEASUREMENT

PART VI

Measurement of Electricity

The following units of measurement, that is to say:—

- (a) The AMPERE (as the unit of measurement of electrical current)
 (b) The OHM (as the unit of measurement of electrical resistances)
 (c) The VOLT (as the unit of measurement of difference of electrical potential) and
 (d) The WATT (as the unit of measurement of electrical power):

shall have the meanings from time to time respectively assigned by order by the Minister, being the meaning appearing to the Minister to reproduce in English the International definition of the Ampere, Ohm, Volt or Watt as the case may be, in force at the date of the making of the order.

| | |
|-------------------|---------------------|
| 1 kilowatt | ...=1 000 watts |
| 1 megawatt | ...=1,000 000 watts |

PART VII

Measurement of Time

| | |
|---------------|--------------------------------------|
| hour | ...=60 minutes |
| minute | ...=60 seconds |
| second | ...=As defined in the First Schedule |

EIGHTH SCHEDULE

PHYSICAL WEIGHTS AND MEASURES LAWFUL FOR USE IN TRADE

1. *Capacity Measures:**Measures of:—*

| | |
|----------------------------|-----------------|
| Any multiple of 10 litres. | 100 millilitres |
| 10 litres | 50 millilitres |
| 5 litres | 25 millilitres |
| 2.5 litres | 20 millilitres |
| 2 litres | 10 millilitres |
| 1 litre | 5 millilitres |
| 500 millilitres | 2 millilitres |
| 250 millilitres | 1 millilitres |

2. *Weights of:—*

| | |
|--------------|-----------------|
| 20 kilograms | 500 milligrams. |
| 10 kilograms | 200 milligrams. |
| 5 kilograms | 100 milligrams. |
| 2 kilograms | 50 milligrams. |
| 1 kilogram | 20 milligrams. |
| 500 grams | 10 milligrams. |
| 200 grams | 5 milligrams |
| 100 grams | 2 milligrams. |
| 50 grams | 1 milligram. |
| 20 grams | |
| 10 grams | |
| 5 grams | |
| 2 grams | |
| 1 gram | |

3. *Metric Carat Weights:—*

| | |
|------------|-------------|
| 500 carats | 0.5 carat. |
| 200 carats | 0.25 carat. |
| 100 carats | 0.2 carat. |