2.2 Total soluble solids:

Follow method given in Clause1.6 above

2.3 Determination of pH Value: -

pH is the measurement of H+ ion activity; It measures active acidity. pH may be determined by measuring the electrode potential between glass and reference electrodes; pH meter is standardised using standard pH buffers.

Use homogenized sample for the determination of pH.

Preparation of sample for pH measurement:

Liquids

Immerse the standardized electrode tip into the solution and stir the sample gently by means of a rod or "flea" to give a constant pH value.

Non-homogeneous products

If it is useful to know the pH of different components of the sample or differences between the pH at several points of the test portion, separate these as best as possible, homogenize and read them separately. For a bulk pH measurement, homogenize a representative aliquot to give a moist homogeneous mixture. Treat bulk as for moist homogeneous products (7.1.4).

Dry products

Have a standard practice for the dilution of dried materials - particularly when comparing the pH of sub-samples of the same product, as pH may change with the extent of dilution.

For example homogenize with an equal volume of distilled or deionized water. Immerse the electrode in the sample and mix gently until a constant pH reading is obtained.

Moist homogeneous products

Homogenise the sample, immerse or embed the electrode and ensure that there is adequate contact between probe and sample. Read when the meter reading is stable. Do three separate measurements on the test sample - the extreme readings should not differ by more than 0.15 pH units. Take as the result the arithmetic mean of the three readings.

2.4 Determination of acidity (Applicable to jams , jellies also)

Titrable acidity can be expressed conveniently in gms acid per 100 gm or per 100 ml as appropriate, by using the factor appropriate to the acid as follows:

1 ml of 0.1 N NaOH equals
Malic acid - 0.0067 gms
Oxalic acid - 0.0045 gms
Citric acid monohydrate - 0.0070 gms
Citric acid anhydrous - 0.0064 gms
Tartaric acid - 0.0075 gms
Lactic acid – 0.0090 gms
Acetic acid – 0.0060 gms
Oleic acid – 0.00282 gms

(a) **Colourless or slightly coloured solutions**

Take 10 gm well mixed juice, dilute to 250 ml with neutralised or recently boiled water. Titrate with 0.1 N NaOH using 0.3 ml phenolpthlein for each 100 ml of the solution to pink end point persisting for 30 seconds.

Report acidity as ml 0.1 N NaOH per 100 gm or 100 ml as required.

(b) **Highly coloured solutions**

Sample preparation:

1) Dilute known weight of sample with neutralized water and titrate to just before end point with 0.1 N alkali using 0.3 ml phenolphthalein for each