1% Alcoholic Eosin: 1 g eosin was dissolved in 100 ml of 90% alcohol.

1-Amino 2-napthol 4-sulphonic acid (ANSA): Dissolved 15 g of sodium metabisulphite in 200 ml of distilled water. To 195 ml of this solution, added 0.5 g of ANSA and 5 ml of 20% sodium sulphite. This solution was decolourised with 1 g of activated charcoal and kept for overnight in dark. The colourless filtrate was stored in the refrigerator.

Bouin’s fixative: a) Saturated picric acid - 75 ml  
       b) Formalin (40% formaldehyde) - 25 ml  
       c) Acetic acid - 5 ml

Buffered substrate for alkaline phosphatase:  
0.5 M glycine buffer, containing 5.5x10^-3 M p-nitrophenyl phosphate (pH 10.5)  
a) glycine - 375 mg  
b) Magnesium chloride - 10 mg  
c) p-nitrophenyl phosphate - 165 mg  
All these were dissolved in 42 ml of 0.1 N Sodium hydroxide and diluted to 100 ml with distilled water. pH was set to 10.5.

Buffered substrate for lactate dehydrogenase (pH 10.0):  
Dissolved 5 ml of 70% sodium lactate in 125 ml of 0.1 M glycine buffer and 75 ml of 0.1 N Sodium hydroxide was added to it. (A drop of chloroform was added as a preservative).
Calcium chloride (2mM): 22.19 mg Calcium chloride was dissolved in 100 ml distilled water.

Dichromate calcium: a) Potassium chloride - 5 g  
b) Calcium chloride - 1 g  
c) Distilled water - 100 ml

EDTA (5 mM): 186.12 mg EDTA was dissolved in 100 ml distilled water.

Formaldehyde calcium: a) Formaldehyde - 10 ml  
b) Calcium chloride - 2 g  
c) Distilled water - 100 ml

Marble chips were added to it while storing.

Gelatin: 25 g gelatin was added to 100 ml distilled water and kept at 60°C for 24 hr and then at 37°C for 24 hr (it can be stored in refrigerator).

Glycerine jelly: a) Gelatin - 15 g  
b) Glycerine - 100 ml  
c) Distilled water - 100 ml

15 g gelatin was dissolved in 100 ml distilled water with moderate heating and then filtered through glass wool on a muslin cloth. 100 ml glycerine was added and stored at 37°C in an incubator (few crystals of phenols were also added as preservative).
GOT substrate:  
   a) D,L-aspartic acid  
   b) \(\alpha\)-Keto glutaric acid.

1.33 g D,L-aspartic acid was dissolved in 9.8 ml of 1 N Sodium hydroxide (pH was adjusted to 7.4), 14 mg \(\alpha\)-ketoglutaric acid was dissolved in a minimal amount of 1 N Sodium hydroxide. pH was adjusted to 7.4, and the volume was made to 50 ml with phosphate buffer (0.1 M, pH 7.1).

GPT Substrate:  
   a) alanine  
   b) \(\alpha\)-Ketoglutaric acid

200 mg alanine was dissolved in 9 ml of distilled water. pH was adjusted to 7.4 with 1 N Sodium hydroxide. 14 mg \(\alpha\)-ketoglutaric acid was dissolved in a minimal amount of 1 N Sodium hydroxide. pH was set to 7.4 and the volume was made to 50 ml with phosphate buffer (0.1 M, pH 7.1).

Kreb's Ringer buffer (pH 7.4):

a) (NaCl) (Sodium chloride) (0.154 M) - 0.9%.
b) (KCl) Potassium chloride (0.154 M) - 1.15%.
c) (CaCl\(_2\)) Calcium chloride (0.11 M) - 1.22%.
d) (KH\(_2\)PO\(_4\)) Potassium phosphate, diabasic (0.154 M) - 2.11%.
e) (MgSO\(_4\)\(_7\)H\(_2\)O) Magnesium sulphate (0.154 M) - 3.82%.
f) (NaHCO\(_3\)) Sodium bicarbonate (0.154 M) - 1.3%.
To 100 parts of (a), 4 parts of (b), 3 parts of (c), 1 part of (d), 1 part of (e) and 21 parts of (f) were added. Buffer thus prepared was gassed for 10 min with carbogen (95% O₂ and 5% CO₂). pH was adjusted to 7.4. 5% glucose solution was added in a preparation of 0.4 ml to 19.6 ml of buffer.

1 mM Magnesium chloride : 9.52 mg MgCl₂ was dissolved in 100 ml distilled water.

1 mM Manganese chloride : 12.58 mg MnCl₂ in 100 ml distilled water.

Mercuric bromophenol blue: a) Mercuric chloride - 500 mg
b) Bromophenol blue - 25 mg
c) Distilled water - 49 ml
d) Glacial acetic acid - 1 ml

Acid was added to restore the pH.

Periodic acid (1%) : 1 g periodic acid was dissolved in 100 ml distilled water.

Phosphate buffer (0.2 M) pH 7.4: (a) 0.2 M solution of monobasic sodium phosphate (31.2 g NaHPO₄·2H₂O in 1000 ml). (b) 0.2 M solution of dibasic sodium phosphate (35.61 g of Na₂HPO₄·2H₂O or 71.7 g of Na₂HPO₄·12H₂O in 1000 ml). 19 ml of (a) + 81 ml of (b), diluted to 200 ml with distilled water.
Potassium hydroxide (20%): 20 g KOH was dissolved in 100 ml distilled water.

Schiff's reagent: 1 g basic fuchsin was dissolved in 200 ml of boiling distilled water, mixed well for 5 min and cooled to 50°C. Twenty ml of 1 N hydrochloric acid was added and cooled down to 25°C. The to it was added 1 g sodium or potassium metabisulphite. This solution was kept for 14-24 hrs and then 2 g of activated charcoal was added and mixed for 12 min. It was filtered and stored in dark at 0-4°C (used in a dark at room temperature).

Sodium maleate buffer 50 mM (pH 6.8): 580.35 mg maleic acid was dissolved in 100 ml distilled water, containing 200 mg sodium hydroxide.

Stock ferric chloride reagent: 5 g of anhydrous ferric chloride was dissolved in 50 ml of glacial acetic acid.

Working ferric chloride reagent: 1 ml of stock ferric chloride solution was diluted to 100 ml with concentrated sulphuric acid. For this 25-30 ml of con. Sulphuric acid was taken in a graduated cylinder and 1 ml of stock ferric chloride solution was added with constant stirring. (Working ferric chloride reagent was always prepared fresh at the time of use.)

Trichloro acetic acid (TCA) 10%: 10 g TCA was dissolved in 100 ml distilled water.
Tris-HCl buffer, 75 mM (pH 7.2): Dissolved 907 mg of tris in 6.6 ml of 1 N Hydrochloric acid and the volume was made to 100 ml with distilled water. pH was adjusted to 7.2.

Zenker's fixative: 

a) Mercuric chloride - 5 g  
b) Potassium dichromate - 2.5 g  
c) Sodium sulphate - 1 g  
d) Distilled water - 100 ml  
e) Glacial acetic acid - 5 ml  
(This was added at the time of use).