**ESTIMATION OF TOTAL PROTEINS**

**AIM :-** To estimate the serum total proteins by burret method

**Principle:-**

This method is based on the formation of violet coloured complete

When the peptide bonds in proteins react with cupric ions the in alkaline mediu

-m the intensity of the violet colours is proportional to the protein concentration

And the colours is read at 540nm.

**RE-agents :-** (1) Btatasateiuret reagent :-

(contains o2N NaoH3 , Na-k 9g , CUSo4 SH2O-3g , KI-5g in 100ml tastasate )

(2) protein standard :- 600mg / 100ml [ 6mg / 3ml ]0.9 % Nacl .

Procedure :- Mark three tubes as blank [B],standard,[S]Test,[T]and proceed

As follows.

SI.NO CONTENTS B S T

1 Distilled Water [ml] 1 - -

2 Standard solution [ml] - 1 -

3 Sterm - - 1

4 Biuret re – agents [ml] 2 2 2

Mix and let stand for 15min . read on at 540nm.

**Calculation :-**

The amount of serum total proteins.

**Reports :-**The concentration of unknown protein solution given is 6.6gm/dl

Clinical significance :- total protein concentration in serum is 6.8gm/dl in normal

Subjects.

* The albumin globulin ratio is 2 : 1
* Increase is serum proteins may occurs in
* Dehydration with the ratio remaining unaltered
* Multiple myeloma
* Decrease in total protein .
* Hypoalbuminemia an be due to either
* Loss of albumin in nephrotic syndrome
* Impaired synthesis in liver disease and

In adequate supply of dictory [malnutrition] (or) in excesive protein catabolism.

**ESTIMATION OF BLOOD GLUCOSE**

AIM :- To estimate the concentration of glucose in the given sample of blood.

METHOD :- Glucose oxidase -> peroxide

PRINCIPLE :-

Glucose + h20+o2 -> Gluconic acid + H2O2 4 amino anti pyrine +

H2o2 -> Quinone pink colour complex .

PROCEDURE :- THREE test tubes taken and labelled as them blank , standard and test Re-agents were taken as given in the table.

RE-AGENT B S T

Glucose re-agent 1ml 1ml 1ml

D.L 10ul - -

Standard - 10ul -

Serum - - 10ul

Mix and incubate at room temperature for 10min ,mesure the intensity of colour at 505nm [green filter] in calorimeter.

Calculation :-

Concentration of glucose in given sample o.d of test o.d of std

REPORT:-

The concentration of unknown blood glucose solution given is 140mgl dl.

CLINICAL INTERPRETATION :-

Normal value :- Rosting 70-100mg/dl

Post prandial : less than 140 mg/dl

Impaired glucose tolerance f .101-125 mg/dl

p-p -140 to 200 mg/dl

Diabetis Mellitus F.126mg/dl of above p-p more than 200mg /dl

Hyper glycemia :-

Increased glucose level in blood .diabetis mellitus hyper activity of thyroid , pituatory and adrenal gland .

Hypoglysimia :-

Decreased level of glucose in blood 40g/dl over dosage .insuline secretions tumers Hypertension , Hyperthyrodism , Hypodermal

VON- gietrs disease.