QUANTITATIVE ANALYSIS

ALBUMIN ANALYSIS

Quantitative analysis measures how much of an analyte is present

Standard – This is a solution whose analyte concentration of is known. It has a fixed value. It is a part of the control

Standard curve – It is obtained from the standard solution and it is used to find out the unknown

Control – This is a solution with known range of values. The purpose is to authenticate results i.e. the results should be within the range of values, otherwise the results are invalid and then the whole process needs to be re-evaluated to find where the problem is. This value should preferably be closer to the mean

Test – This is the sample taken from the patient

Reagent – cresol green

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Test tubes: | Blank | STD | Control | Test |
| Reagent | 500µl | 500µl | 500µl | 500µl |
| Standard | - | 5µl | - | - |
| Control | - | - | 5µl | - |
| Test | - | - | - | 5µl |

Mix contents of each tube respectively and stand the test tubes for 5 minutes

Then read on colorimeter and tabulate the results

|  |  |
| --- | --- |
|  | Optical Density (OD)/ Absorbance |
| Standard |  |
| Control |  |
| Test |  |

Calculations:

[C] = OD of C/OD of S X [S]

[T] = OD of T/OD of S X [S]

Where [S] is given/known

Units are in gm/l