## **CERTIFICATE of CALIBRATION**

MANUFACTURER: CKK Diagnostics Bangalore Pvt. Ltd.,

**INSTRUMENT** : ELECTROLYTE ANALYSER

**SERIAL NUMBER:** CKK-LYTE # 1007

CUSTOMER : BGS MEDICAL COLLEGE & HOSPITAL - NELAMANGALA

CKK Diagnostics Bangalore Pvt. Ltd., certifies that the above listed instrument was calibrated on date noted at,BGS VIJNATHAM SOUTH CAMPUS, NAGARUR, DASANAPURA, BANGALORE NORTH-562123 .in accordance with the specifications set forth by the manufacturer using the certified control material as per the provided assay values and expected ranges from the manufacturer.

Calibration Date:-18 MAR 2024 Calibrated by MR.LITHIN

Calibration Due:-17 MAR 2025.

For CKK Diagnostics Bangalore Pvt.Ltd.,



(Authorized Signature)

\*Subjected to AMC

## INSTALLATION QUALIFICATION - IQ OPERATIONAL QUALIFICATION - OQ

&

**PERFORMANCE QUALIFICATION – PQ** 

Of

**Electrolyte Analyzer (CKKLyte)** 

## **CKKLyte Electrolyte Analyzer**



## INSTALLATION QUALIFICATON

# FOR BGS MEDICAL COLLEGE & HOSPITAL

BY

CKK Diagnostics Bangalore Pvt. Ltd.,



## INSTALLATION QUALIFICATION

INSTRUMENT NAME : CKK LYTE

**SERIAL NUMBER CKKL-1007** 

**CUSTOMER NAME** BGS MEDICAL COLLEGE & HOSPITAL - NELAMANGALA

**ADDRESS** : BGS Vijnatham south campus, Nagarur, Dasanapura,

Bangalore North - 562123.

### INSTALLATION REQUIREMENTS FOR THE INSTRUMENT:

REQUIREMENTS	ACCEPTABLE RANGE	OBSERVED RANGE
Input Voltage	230 <u>+</u> 10AC	232 <u>+</u> 5V AC
Line Frequency	50/60 HZ	50HZ
Ambient Temperature	15-45 degree	21 degree

### FOR CKK DIAGNOSTICS BANGALORE PVT. LTD.,

MR. LITHIN.K

(SALES & SERVICE ENGINEER)

## **INSTRUMENT SETUP**

S No	ITEM DESCRIPTION	STATUS
1	SOFTWARE VERSION 24SW5.5USF.3R.M029	INSTALLED
2	REAGENT PACK	INSTALLED
3	QUALITY CONTROL	TESTED

## **OPERATION INSPECTION**

- POWER SUPPLY CHECKED.
- NO UNUSUAL NOISE PRODUCED IN THE SYSTEM.

FOR CKK DIAGNOSTICS BANGALORE PVT. LTD.

MR. LITHIN.K

(SALES & SERVICE ENGINEER)



### INSTALLATION REPORT

CUSTOMER NAME : BGS MEDICAL COLLEGE & HOSPITAL.

PLACE : BGS VIJNATHAM SOUTH CAMPUS, NAGARUR,

DASANAPURA, BANGALORE NORTH – 562123.

**DEPARTMENT** : **BIOCHEMISTRY** 

CONTACT PERSON : MR. RAMKRISHNA

INSTRUMENT NAME : CKK LYTE

SERIAL NUMBER : CKKL-1007

INSTALLATION DATE : 18/03/2024

**WARRANTY EXPIRY** : 1 Year

THE ELECTROLYTE ANALYZER WAS INSTALLED ALONG WITH THE NECESSARY STANDARD ACCESSORIES, ALL BASIC REQUIREMENTS AND ADJUSTMENTS WERE CHECKED AND FOUND TO BE SATISFACTORY. THE PRELIMINARY STANDARDIZATION OF THE ELECTROLYTE ANALYZER AND THE TRAINING WERE PROVIDED TO THE COMPLETE SATISFACTION OF THE CUSTOMER. THE ELECTROLYTE ANALYZER IS FOUND TO BE WORKING SATISFACTORILY.

FOR CKK DIAGNOSTICS BANGALORE PVT. LTD.

MR. LITHIN.K

(SALES & SERVICE ENGINEER)

## **CERTIFICATION OF INSTALLATION**

INSTRUMENT NAME : CKK LYTE

**SERIAL NUMBER CKKL-1007** 

**CUSTOMER NAME** BGS MEDICAL COLLEGE & HOSPITAL - NELAMANGALA

**ADDRESS** : BGS Vijnatham south campus, Nagarur, Dasanapura,

Bangalore North – 562123.

THE UNDERSIGNED PERFORMERS CERTIFY THAT THE INSTALLATION QUALIFICATION PROTOCOL HAS BEEN SUCCESSFULLY COMPLETED FOR THE INSTRUMENT STATED ABOVE.

## **ENGINEER**

Signature :

Name MR. LITHIN.K

Designation SALES & SERVICE ENGINEER

CKK Diagnostics Bangalore Pvt. Ltd., Company

#### QUALITY MANAGER

Signature :

MR. JAGADEESH Name

Designation QA/QC TEAM LEADER

Company CKK Diagnostics Bangalore Pvt. Ltd.,

# OPERATIONAL QUALIFICATON FOR

## **BGS MEDICAL COLLEGE & HOSPITAL**

## BY

## CKK Diagnostics Bangalore Pvt. Ltd.,

## **CKK Lyte Electrolyte Analyzer**



## **OPERATIONAL QUALIFICATION OF THE INSTRUMENT:**

DESCRIPTION	STATUS	REMARKS	
POWER SUPPLY	SELF CHECK	PASSED	
ELECTRONICS	SELF CHECK	PASSED	
REAGENT PACK	SELF CHECK	PASSED	
HARDWARE	SELF CHECK	PASSED	
FLOW PATH	SELF CHECK	PASSED	

## For CKK Diagnostics Bangalore Pvt. Ltd.

## (AUTHORISED SIGNATURE)



## **CERTIFICATION OF OPERATION**

**INSTRUMENT NAME: CKK LYTE** 

SERIAL NUMBER **CKKL-1007** 

**CUSTOMER NAME** BGS MEDICAL COLLEGE & HOSPITAL - NELAMANGALA

**ADDRESS** : BGS VIJNATHAM SOUTH CAMPUS, NAGARUR, DASANAPURA,

BANGALORE NORTH - 562123.

THE UNDERSIGNED PERFORMERS CERTIFY THAT THE OPERATIONAL QUALIFICATION PROTOCOL HAS BEEN SUCCESSFULLY COMPLETED FOR THE INSTRUMENT STATED ABOVE.

### **ENGINEER**

Signature

Mr. LITHIN Name

Designation SALES & SERVICE ENGINEER

Company CKK Diagnostics Bangalore Pvt. Ltd.

#### QUALITY MANAGER

Signature

Name Mr. Jagadeesh

Designation QA/QC TEAM LEADER

CKK Diagnostics Bangalore Pvt. Ltd. Company

## PERFORMANCE QUALIFICATION

# FOR BGS MEDICAL COLLEGE & HOSPITAL

BY

**CKK Diagnostics Bangalore Pvt. Ltd.** 

## **CKK Lyte Electrolyte Analyzer**



## PERFORMANCE ANALYSIS

The performance of the system has been verified by the following process.

Five replicates of the control Level 1 & Level 2 & Level 3 have been run and the statistical analysis of the data is performed. The results should be within control range with following precision limits.

THE UNDERSIGNED PERFORMERS CERTIFY THAT THE PERFORMANCE QUALIFICATION PROTOCOL HAS BEEN SUCCESSFULLY COMPLETED FOR THE INSTRUMENT STATED ABOVE.

A separate annexure has been attached along with this document

#### **ENGINEER**

Signature

Name MR. LITHIN.K

Designation SALES & SERVICE ENGINEER

Company CKK DIAGNOSTICS BANGALORE PVT. LTD.

### **QUALITY MANAGER**

Signature

Name MR. JAGADEESH

Designation QA/QC TEAM LEADER

Company CKK DIAGNOSTICS BANGALORE PVT. LTD.

## **QUALITY CONTROLS ANALYSIS**

QC LOT: UQC2312A EXPIRY: NOV 2025

QUALITY CONTROL ASSIGNMENT FOR CKK LYTE

QC TYPE		MEAN (mmol/L)	MIN(mmol/L)	MAX(mmol/L)	
	Na+	121	112	130	
LEVEL	K+	1.91	1.41	2.38	
1	Cl-	83	74	92	
	Na+	141	134	148	
LEVEL	K+	4.04	3.54	4.54	
2	Cl-	100	93	107	
	Na+	159	150	168	
LEVEL	K+	5.75	5.25	6.25	
3	Cl-	122	113	131	

**CONTROLS RUN IN CKK LYTE** 

NO	LEVEL 1 (mmol/L)			LEVEL 2 (mmol/L)		LEVEL 3 (mmol/L)			
	Na+	K+	Cl-	Na+	K+	Cl-	Na	K+	Cl-
1	119.2	1.8 9	110	140	3.98	99	157.3	5.64	121
2	119.1	1.8 7	111	140.5	3.99	98.9	157.6	5.63	120
3	119.1	1.8 9	110	140.3	3.98	99	157.6	5.64	121
4	119.3	1.8 6	111	140.6	3.99	98.7	157	5.62	121
5	119.1	1.8 9	110	140.9	4.00	98.8	158	5.63	120

FOR CKK DIAGNOSTICS BANGALORE PVT. LTD.

MR. LITHIN.K (SERVICE ENGINEER)