




110

LAB DIRECTOR

 <p><b>Excellas Clinics</b> EXCELLENCE IN HEALTHCARE</p>		<p><b>EXCELLAS CLINICS</b></p> <p>External Quality Assurance Program Evaluation Form</p>				<p>CONTROLLED COPY</p>
<p>Lab code : 2539</p>		<p><b>Discipline: Biochemistry</b></p>				
<p>Date</p> <p>10/01/2023</p>	<p>Test / Parameters</p>	<p>EQAS :RIQAS-RML</p>	<p>ROUND NO: 12</p>	<p>MONTH:DEC-2022</p>	<p>QM/LD Remarks</p>	
	<p>ABUMIN</p> <p>ALAKALINE PHOSPHATASE</p> <p>ALT (SGPT)</p> <p>AMYLASE</p> <p>ASTL (SGOT)</p> <p>BILIRUBIN DIRECT</p> <p>BILIRUBIN TOTAL</p> <p>CALCIUM</p> <p>CHLORIDE</p> <p>CHOLESTEROL</p> <p>CREATININE</p> <p>GGT</p> <p>GLUCOSE</p> <p>LDL CHOLESTEROL</p> <p>LIPASE</p> <p>PHOSPHORUS</p> <p>POTASSIUM</p> <p>TOTAL PROTEIN</p> <p>SODIUM</p> <p>TRIGLYCERIDE</p> <p>UREA</p> <p>CALCIUM IONISED</p> <p>URIC ACID</p>	<p>Date of run</p> <p>06/01/2022</p>	<p>Report Received on</p> <p>04/01/2023</p>	<p>Findings / Zscore</p> <p>All parameters are within 2.0 SDI(zscore)</p>	<p>Corrective Action</p> <p>NA</p>	<p>Result Satisfactory</p>
<p>FORM NO: 01</p>	<p>FORM NAME : EQAS EVALUATION FORM-BIOCHEMISTRY AND IMMUNO ASSAY</p>					<p>M/EQAS-EVAL-BIO/QM/TP/01</p>
<p>ISSUE NO: 01</p>	<p>ISSUE DATE: 01/06/2022</p>					<p>ISSUE BY : QM</p>
<p>AMMEN NO: 00</p>	<p>AMMEND DATE : 00</p>					<p>APPROVED BY: LD</p>



# RML – Quality Assurance Program (RML – QAP)



## BIO-CHEMISTRY-01

### ALL METHOD REPORT

Lab Code: 2539

Cycle - 11/2022

Round No - 12

Date: 20/12/2022

Parameters	Units	No.of. Participants	Group Mean	Standard deviation (SD)	Uncertainty of Assign Values	Range (± 2 SD)	Your Value	Standard Deviation Index (SDI)
Albumin	g/dL	235	4.1	0.3	0.02	3.6-4.6	4.1	0.1
Alkaline Phosphatase	U/L	228	178.6	40.1	3.32	98.4-258.8	199	0.5
Bilirubin Total	mg/dL	235	1.5	0.2	0.02	1.1-1.9	1.6	0.5
Calcium(Total)	mg/dL	211	8.9	0.5	0.04	7.8-9.9	9.3	0.9
Cholesterol (Total)	mg/dL	229	167.1	21.5	1.78	124.0-210.1	151	-0.7
Creatinine	mg/dL	237	1.4	0.2	0.01	1.0-1.8	1.4	0.1
Glucose	mg/dL	238	103.5	10.8	0.87	82.0-125.1	102	-0.1
HDL	mg/dL	221	56.2	16.9	1.42	22.5-90.0	44.6	-0.7
Potassium	mEq/L	207	3.9	0.2	0.02	3.5-4.3	.	.
Protein (Total)	g/dl	233	5.7	0.4	0.03	5.0-6.5	5.7	-0.1
Sodium	mEq/L	205	138.3	3.9	0.34	130.6-146.0	.	.
SGPT/ALT	U/L	234	30.6	4.0	0.32	22.6-38.5	28	-0.6
SGOT/AST	U/L	234	31.5	4.6	0.38	22.3-40.7	28	-0.8
Triglyceride	mg/dL	229	92.9	8.8	0.73	75.3-110.4	98	0.6
Urea	mg/dL	235	43.4	4.2	0.34	35.0-51.8	45	0.4
Uric Acid	mg/dl	234	5.7	0.5	0.04	4.8-6.6	6.4	1.3

### Interpretation of SDI:

SDI Value(+/-)	0 - 0.5	0.6 - 0.9	1.0 - 2.0	2.1 - 2.9	≥ 3
Interpretation	Excellent Performance	Good Performance	Acceptable Performance	Marginal Performance Need Improvement	Unacceptable Performance Needs Urgent action

Legends	(*) Excluded From Group	[.] Not Reported	(#) Late Result	(S) Reported in
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Chief Coordinator

Dr. Sanjay Mehrotra

Checked By:

Prepared by: SS

Doc. No.: ASS / FR / 03 / R 01 / Dt.: 05.01.2022

Programme Director

Dr. Bandana Mehrotra

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Email: rmlresearchfoundation@gmail.com

Website: www.rmlpathology.com

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# RML – Quality Assurance Program (RML – QAP)



## BIO-CHEMISTRY

### METHOD WISE REPORT

Cycle - 11/2022

Round No - 12

Date: 20/12/2022

Lab Code: 2539

Note: Your Lab is not the part of this method group

Parameters	Units	Method Group	No. of Participants in Group	Method Wise Group Mean	Method Wise Standard deviation (SD)	Method Wise Uncertainty of Assign Values	Method Wise Range ( $\pm 2$ SD)	Your Value	Method Wise Standard Deviation Index (SDI)
Albumin	g/dL	Bromocresol Green (B.C.G)	102	4.1	0.2	0.03	3.6-4.6	-	-
Alkaline Phosphatase	U/L	PNPP, AMP Buffer	68	173.8	30.6	4.63	112.7-235.0	-	-
Bilirubin Total	mg/dL	Diazonium Ion	63	1.5	0.2	0.03	1.0-1.9	-	-
Calcium(Total)	mg/dL	Arsenazo iii	60	9.0	0.6	0.10	7.7-10.2	-	-
Cholesterol (Total)	mg/dL	Cholesterol Oxidase, esterase, peroxidase	66	172.5	21.6	3.32	129.4-215.6	-	-
Creatinine	mg/dL	Enzymatic	42	1.4	0.2	0.03	1.0-1.8	-	-
Glucose	mg/dL	Glucose oxidase, hydrogen peroxidet (rinder)	43	107.4	9.5	1.81	88.4-126.5	-	-
HDL	mg/dL	Direct measure-PEG	31	54.2	17.1	3.85	20.0-88.5	-	-
Potassium	mEq/L	ISE Direct	69	3.9	0.2	0.03	3.5-4.3	-	-
Protein (Total)	g/dl	Biuret, reagent blank, end point	42	5.8	0.5	0.10	4.8-6.8	-	-
Sodium	mEq/L	ISE Direct	70	138.2	3.5	0.52	131.2-145.2	-	-
SGPT/ALT	U/L	UV without P5P	44	30.0	3.7	0.69	22.6-37.3	-	-
SGOT/AST	U/L	UV without P5P	44	29.8	3.4	0.64	23.0-36.6	-	-
Triglyceride	mg/dL	Enzymatic, end point	37	94.4	7.7	1.58	79.0-109.8	-	-
Urea	mg/dL	Urease, UV	54	43.5	4.9	0.83	33.8-53.2	-	-
Uric Acid	mg/dl	Uricase, Colorimetric	72	5.7	0.4	0.06	4.8-6.5	-	-

#### Interpretation of SDI:

SDI Value(+/-)	0 - 0.5	0.6 - 0.9	1.0 - 2.0	2.1 - 2.9	$\geq 3$
Interpretation	Excellent Performance	Good Performance	Acceptable Performance	Marginal Performance Need Improvement	Unacceptable Performance Needs Urgent action

Legends	(*) Excluded From Group Mean	{,} Not Reported	(#) Late Result Submission	(\$) Reported in other Unit
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Chief Coordinator

Programme Director

Dr. Sanjay Mehrotra

Dr. Bandana Mehrotra

Checked By:

Prepared by: SS



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Doc. No.: ASS / FR / 03 B / R 01 / Dt.: 05.01.2022

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Research Foundation

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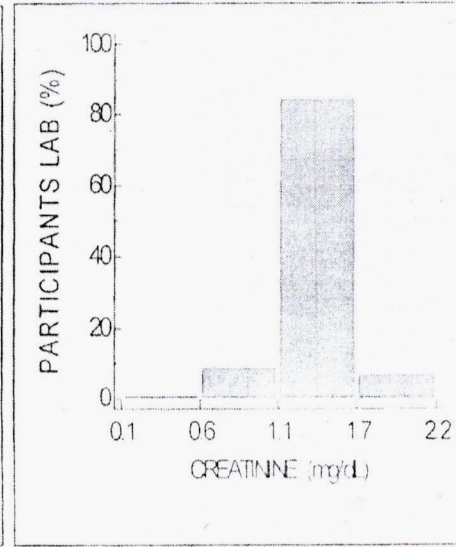
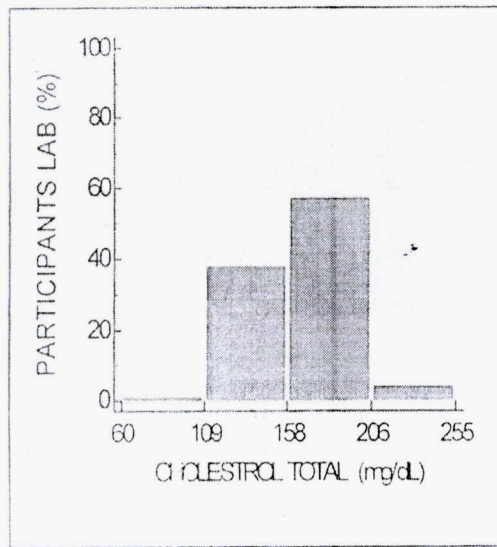
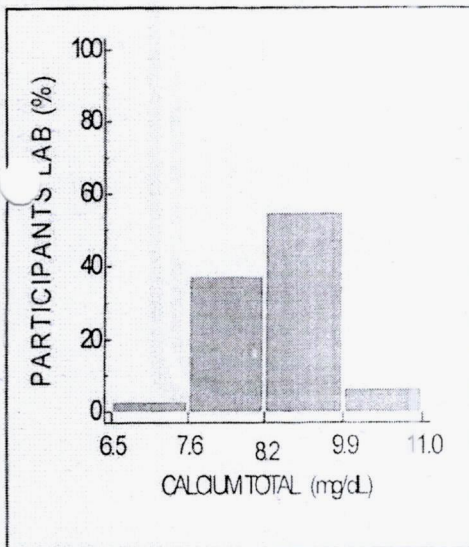
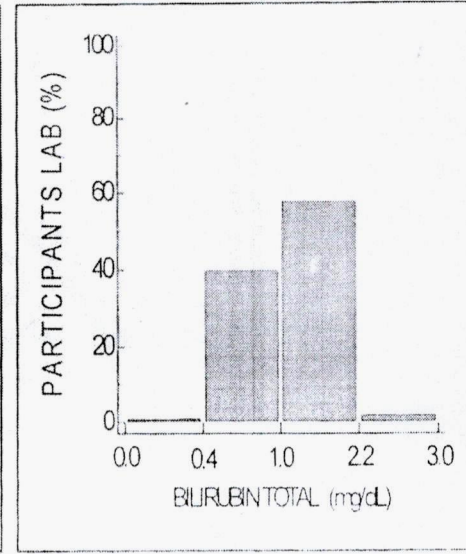
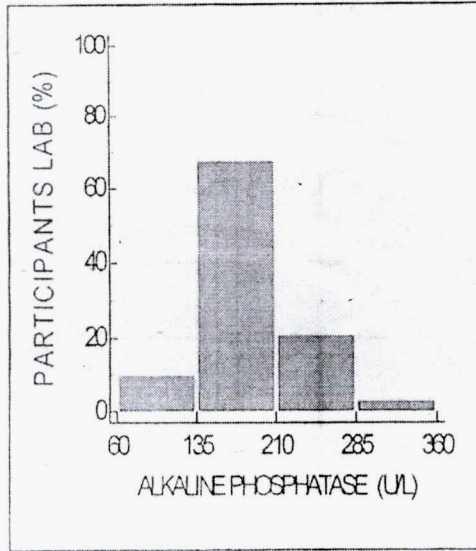
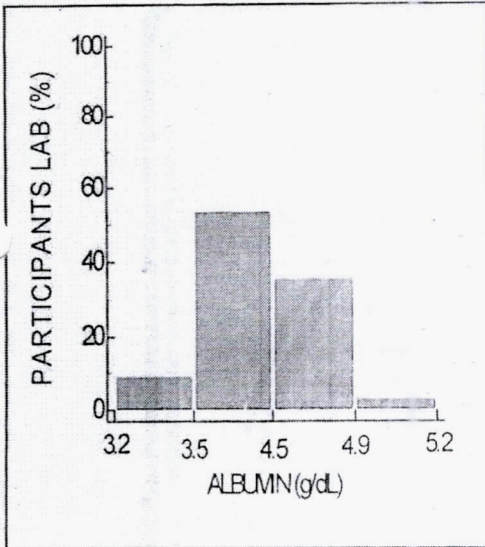


BIO-CHEMISTRY

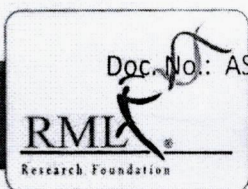
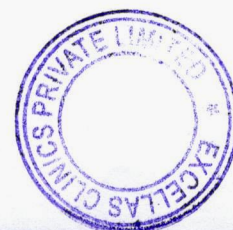
GRAPHICAL REPORT

Cycle - 11/2022  
Round-12

Date:20/12/2022



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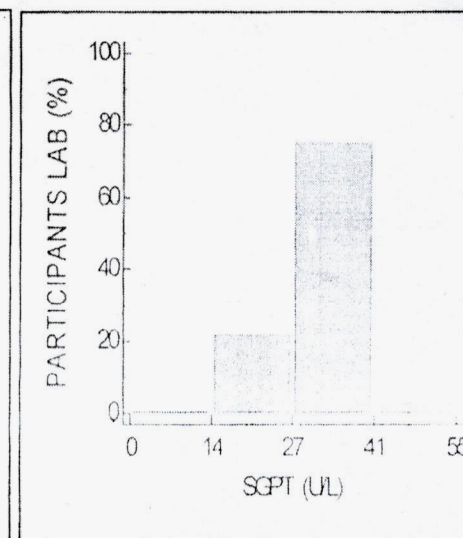
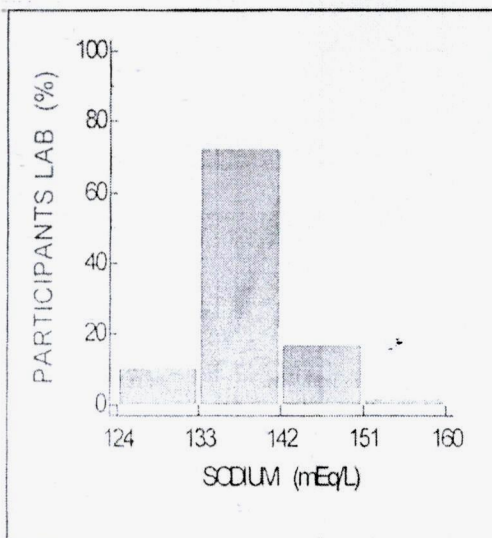
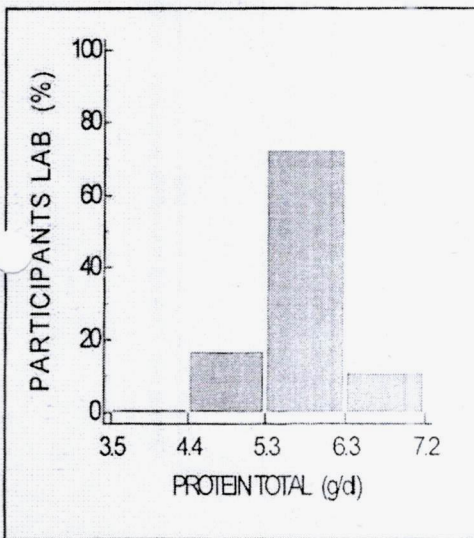
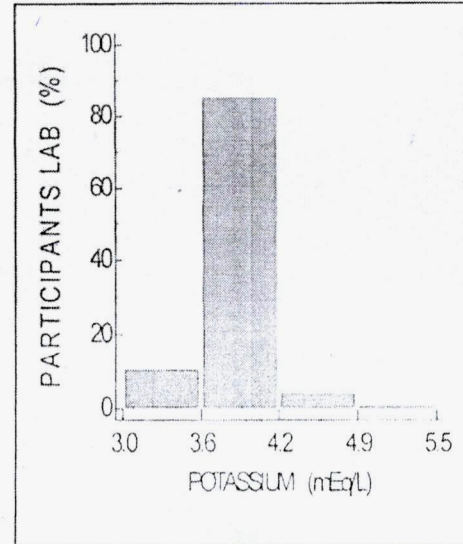
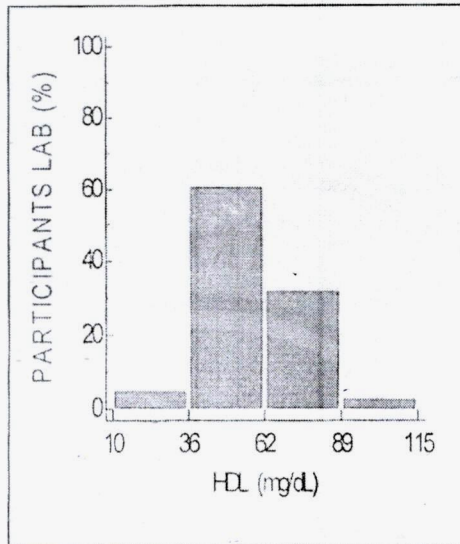
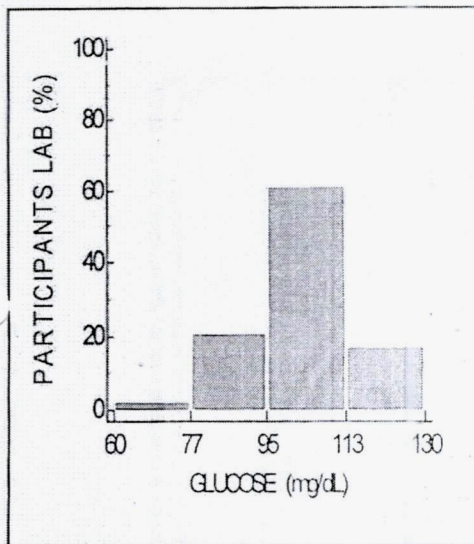


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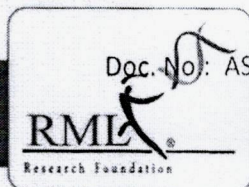
### GRAPHICAL REPORT

Cycle - 11/2022  
Round-12

Date:20/12/2022



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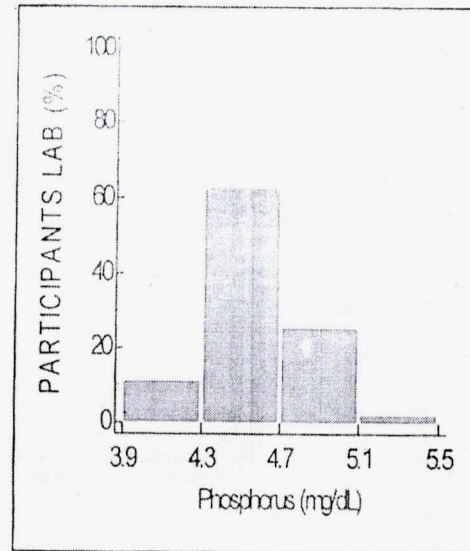
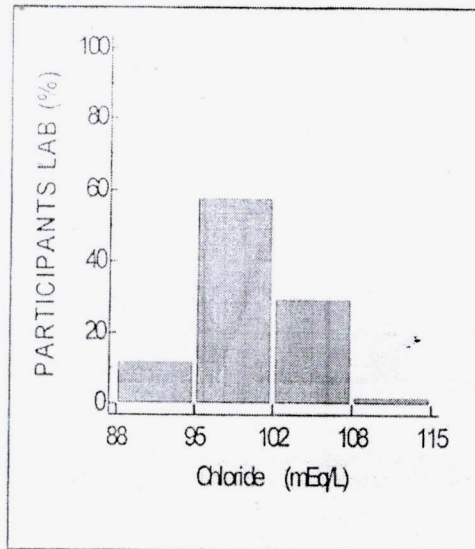
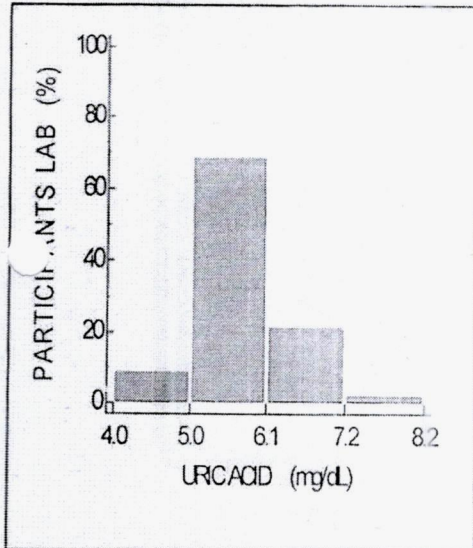
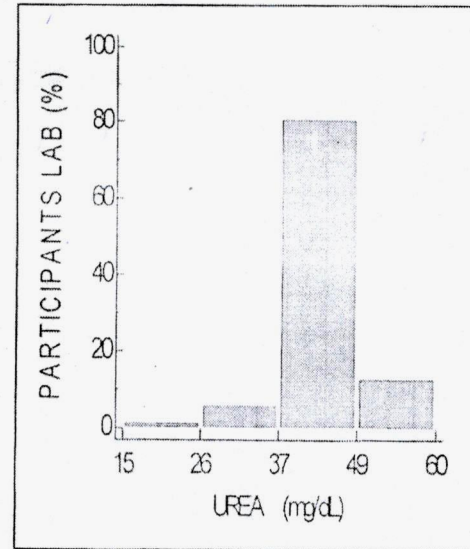
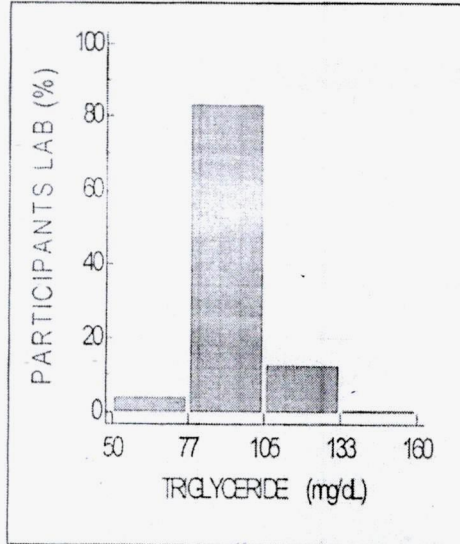
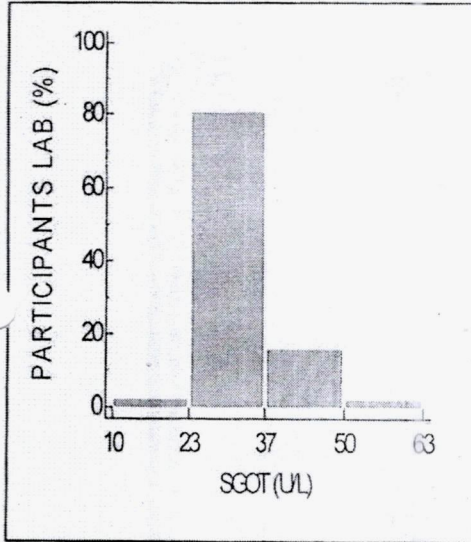


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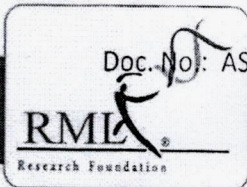
GRAPHICAL REPORT

Cycle - 11/2022  
Round-12

Date:20/12/2022



*Pradi*  
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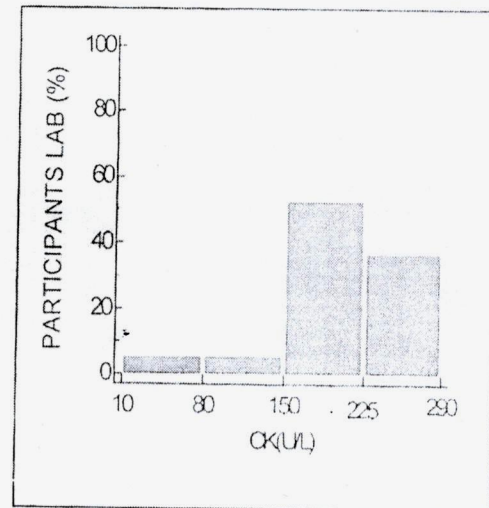
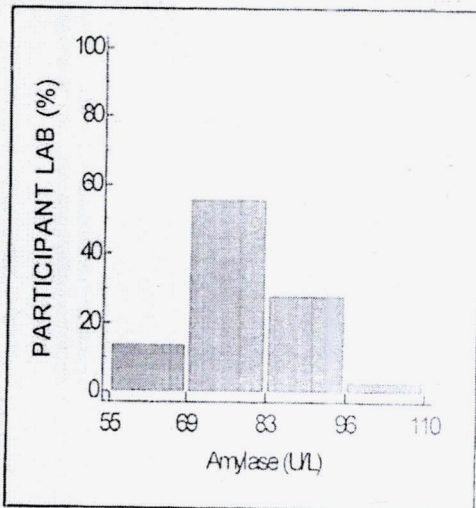
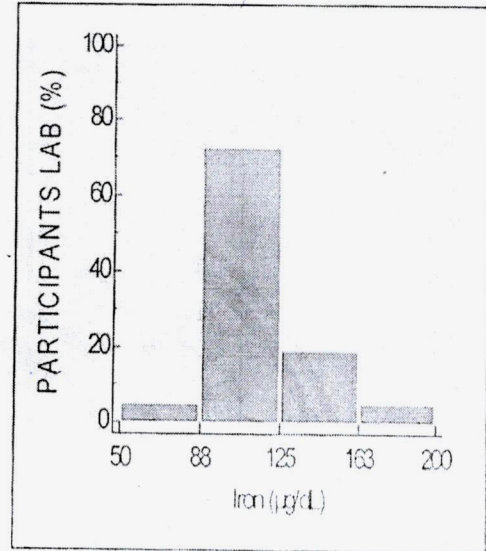
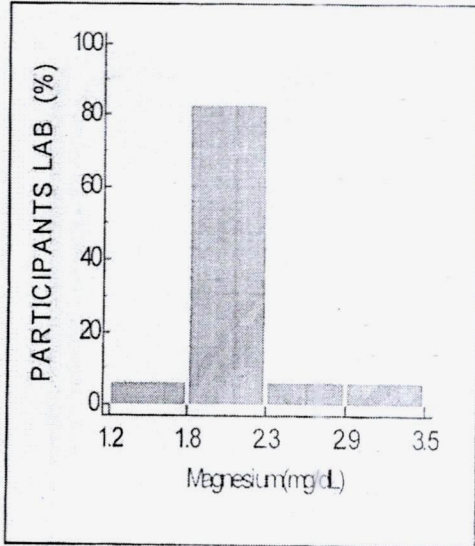


BIO-CHEMISTRY

GRAPHICAL REPORT

Cycle - 11/2022  
Round-12

Date:20/12/2022



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## Biochemistry

ALL PARTICIPANTS COMPLETE DATA REPORT

Cycle - 11/2022

Round No -12

Date: 20/12/2022

**Note:-** This report is only for information about the participants performance in the particular round

Parameters	Total No. of Participants	No. of Responses	No of Participant Excluded from Group Mean	No. of Participants SDI b/w 0.0 - 2	No. of Participants SDI b/w 2.1 - 2.9	No. of Participants SDI >3
Albumin	291	235	8	208	15	12
Alkaline Phosphatase	291	228	4	211	10	7
Bilirubin Total	291	235	3	216	7	12
Calcium(Total)	291	211	11	183	12	16
Cholesterol (Total)	291	229	2	216	6	7
Creatinine	291	237	4	216	11	10
Glucose	291	238	3	222	9	7
HDL	291	221	0	215	6	0
Potassium	291	207	6	184	9	14
Protein (Total)	291	233	6	206	12	15
Sodium	291	205	3	182	14	9
SGPT/ALT	291	234	3	213	12	9
SGOT/AST	291	234	3	196	23	15
Triglyceride	291	229	6	201	13	15
Urea	291	235	3	212	12	11
Uric Acid	291	234	8	210	10	14

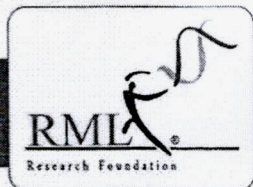
\*\*End of Report\*\*

Doc. No.: ASS / FR / 01 / R 00 / Dt.: 01.07.2012

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Instrument - EM-200 (Erba)

### Result Reprint

Report Type :Patients

Sr #	Sample ID	Test	Result Unit	Flag	Curve #	Result Date
1	RML ROUND 12	SGPTD	28.6 U/L		86181	06-Dec-2022 16:40:10
2	RML ROUND 12	SGOTD	28.8 U/L		86182	06-Dec-2022 16:40:28
3	RML ROUND 12	ALPU	199 U/L	H	86183	06-Dec-2022 16:40:46
4	RML ROUND 12	GGT	51.3 U/L		86184	06-Dec-2022 16:41:04
5	RML ROUND 12	BIDD	0.92 mg/dl	H	86185	06-Dec-2022 16:41:22
6	RML ROUND 12	BIT	1.63 mg/dl		86186	06-Dec-2022 16:41:40
7	RML ROUND 12	UREA	45.5 mg/dl		86187	06-Dec-2022 16:41:58
8	RML ROUND 12	CRENZ	1.46 mg/dl	H	86188	06-Dec-2022 16:42:17
9	RML ROUND 12	GLU	102.8 mg/dl	H	86189	06-Dec-2022 16:42:35
10	RML ROUND 12	TRIG	98.0 mg/dl		86190	06-Dec-2022 16:42:52
11	RML ROUND 12	CHOL	151 mg/dl		86191	06-Dec-2022 16:43:11
12	RML ROUND 12	HDLC	44.6 mg/dl		86192	06-Dec-2022 16:43:47
13	RML ROUND 12	UA	6.4 mg/dl		86193	06-Dec-2022 16:44:05
14	RML ROUND 12	CA	9.3 mg/dl		86194	06-Dec-2022 16:44:23
15	RML ROUND 12	ALBD	4.10 g/dl		86195	06-Dec-2022 16:44:41
16	RML ROUND 12	PRO	5.78 g/dl	L	86196	06-Dec-2022 16:44:59

  
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Result Reprint

Report Type :Patients

Sr #	Sample ID	Test	Result Unit	Flag	Curve #	Result Date
1	RML ROUND 12	SGPTD	28.6 U/L		86181	06-Dec-2022 16:40:10
2	RML ROUND 12	SGOTD	28.8 U/L		86182	06-Dec-2022 16:40:28
3	RML ROUND 12	ALPU	199 U/L	H	86183	06-Dec-2022 16:40:46
4	RML ROUND 12	GGT	51.3 U/L		86184	06-Dec-2022 16:41:04
5	RML ROUND 12	BIDD	0.92 mg/dl	H	86185	06-Dec-2022 16:41:22
6	RML ROUND 12	BIT	1.63 mg/dl		86186	06-Dec-2022 16:41:40
7	RML ROUND 12	UREA	45.5 mg/dl		86187	06-Dec-2022 16:41:58
8	RML ROUND 12	CRENZ	1.46 mg/dl	H	86188	06-Dec-2022 16:42:17
9	RML ROUND 12	GLU	102.8 mg/dl	H	86189	06-Dec-2022 16:42:35
10	RML ROUND 12	TRIG	98.0 mg/dl		86190	06-Dec-2022 16:42:52
11	RML ROUND 12	CHOL	151 mg/dl		86191	06-Dec-2022 16:43:11
12	RML ROUND 12	HDLC	44.6 mg/dl		86192	06-Dec-2022 16:43:47
13	RML ROUND 12	UA	6.4 mg/dl		86193	06-Dec-2022 16:44:05
14	RML ROUND 12	CA	9.3 mg/dl		86194	06-Dec-2022 16:44:23
15	RML ROUND 12	ALBD	4.10 g/dl		86195	06-Dec-2022 16:44:41
16	RML ROUND 12	PRO	5.78 g/dl	L	86196	06-Dec-2022 16:44:59

  
**QUALITY MANAGER**

# RML - Quality Assurance Program (RML - QAP)

BIO-CHEMISTRY-01 (Basic)



(Filled by Participant)

(Filled by QAP Provider)

Lab Code No. **2539**

Cycle No.:11

Round No.:12

Last Date for Result Submission: 10-12-2022

Sample Testing Date: **06.12.2022**

The lyophilized sample is being provided. Kindly process the following analytes.

Sr. No	Name of the Test	Result	Units	Method
1.	Albumin	4.10	g/dL	BCG
2.	Alkaline Phosphatase	199	U/L	IFCC with AMP Buffer
3.	Bilirubin Total	1.63	mg/dL	DIAZO (Waltex & Gerade)
4.	Calcium (Total)	9.3	mg/dL	Arsenazo
5.	Cholesterol (Total)	151	mg/dL	CHOD-PAP
6.	Creatinine	1.46	mg/dL	Enzymatic
7.	Glucose	102	mg/dL	GOD-POD
8.	HDL	44.6	mg/dL	HDL-Direct
9.	Potassium		mEq/L	NP
10.	Protein (Total)	5.78	g/dL	Biuret
11.	Sodium		mEq/L	NP
12.	SGPT/ALT	28.6	U/L	IFCC without pyridoxal phosphate
13.	SGOT/AST	28.8	U/L	IFCC without pyridoxal phosphate
14.	Triglyceride	98.0	mg/dL	GPO-Trinder
15.	Urea	45.5	mg/dL	Urease-GDH
16.	Uric Acid	6.4	mg/dL	Uricase-POD

Note:-

- It is mandatory to attach the machine printout along with the result.
- You are request to report the result only in above mentioned decimal point & units.
- You may also send your results through mail, to avoid any delay in result submission

**DONE BY**

**QUALITY MANAGER**

**LAB DIRECTOR**

*Pradit*

*Pradit*

*Uu*

Doc. No.: RES/FR/03/R01/Dt.: 05.01.2022

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**RML**  
Research Foundation

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**EXCELLAS CLINICS**



External Quality Assurance Program Evaluation Form

Discipline: Biochemistry

Lab code : 2539		EQAS : RIQAS-RML		ROUND NO: 11	MONTH: NOV-2022			
Date  01/11/2022	Test / Parameters	Sample Details	Date of run	Report Received on	Findings / Zscore	Corrective Action	QM/LD	Remarks
	ABUMIN	Serum	07/11/2022	20/12/2022	All parameters are within 2.0 SDI(zscore)	NA		Result Satisfactory
	ALAKALINE PHOSPHATASE							
	ALT (SGPT)							
	AMYLASE							
	ASTL (SGOT)							
	BILIRUBIN DIRECT							
	BILIRUBIN TOTAL							
	CALCIUM							
	CHLORIDE							
	CHOLESTEROL							
	CREATININE							
	GGT							
	GLUCOSE							
	LDL CHOLESTEROL							
LIPASE								
PHOSPHORUS								
POTASSIUM								
TOTAL PROTEIN								
SODIUM								
TRIGLYCERIDE								
UREA								
CALCIUM IONISED								
URIC ACID								
FORM NO: 01		FORM NAME : EQAS EVALUATION FORM-BIOCHEMISTRY AND IMMUNOASSAY			M/EQAS-EVAL-BIO/QM/TP/01			
ISSUE NO: 01		ISSUE DATE: 01/06/2022			ISSUE BY : QM			
AMMEN NO: 00		AMMEND DATE : 00			APPROVED BY: LD			



PC 1001

## RML- Quality Assurance Program (RML-QAP)

BIO-CHEMISTRY-01

## ALL METHOD REPORT

Lab Code: 2539

Cycle - 11/2022

Round No - 11

Date: 28/11/2022

Parameters	Units	No.of. Participants	Group Mean	Standard deviation (SD)	Uncertainty of Assign Values	Range ( $\pm 2$ SD)	Your Value	Standard Deviation Index (SDI)
Albumin	g/dL	242	2.9	0.2	0.02	2.4-3.4	3.0	0.4
Alkaline Phosphatase	U/L	234	321.1	71.9	5.88	177.2-464.9	316	-0.1
Bilirubin Total	mg/dL	242	4.9	0.6	0.05	3.8-6.1	4.9	-0.1
Calcium(Total)	mg/dL	216	12.2	0.9	0.07	10.5-13.9	13.4	1.4
Cholesterol (Total)	mg/dL	236	270.3	16.0	1.30	238.3-302.3	264	-0.4
Creatinine	mg/dL	246	4.2	0.4	0.03	3.4-4.9	4.1	-0.1
Glucose	mg/dL	248	258.1	18.7	1.49	220.7-295.5	270	0.6
HDL	mg/dL	226	85.9	30.5	2.54	24.9-146.9	63.2	-0.7
Potassium	mEq/L	201	5.8	0.3	0.03	5.1-6.4	.	.
Protein (Total)	g/dl	241	4.6	0.3	0.03	3.9-5.2	5.0	1.3
Sodium	mEq/L	200	155.3	4.7	0.41	145.9-164.7	.	.
SGPT/ALT	U/L	242	122.8	13.1	1.05	96.6-149.1	126	0.2
SGOT/AST	U/L	242	128.6	12.3	0.99	103.9-153.3	124	-0.4
Triglyceride	mg/dL	236	249.8	15.9	1.29	218.0-281.5	252	0.1
Urea	mg/dL	246	113.9	10.4	0.83	93.1-134.7	129	1.4
Uric Acid	mg/dl	242	9.4	0.9	0.07	7.4-10.8	10.5	1.3

Interpretation of SDI:

SDI Value(+/-)	0 - 0.5	0.6 - 0.9	1.0 - 2.0	2.1 - 2.9	$\geq 3$
Interpretation	Excellent Performance	Good Performance	Acceptable Performance	Marginal Performance Need Improvement	Unacceptable Performance Needs Urgent action

Legends	(*) Excluded From Group	{ } Not Reported	(#)Late Result	(S)Reported in
---------	-------------------------	------------------	----------------	----------------

Chief Coordinator

Dr.Sanjay Mehrotra

Programme Director

Dr.Bandana Mehrotra

Checked By:

Page 1 of 7

Prepared by: SS

Doc. No.: ASS / FR / 03 / R 01 / Dt.: 05.01.2022

RML  
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Email: rmlresearchfoundation@gmail.com Website: www.rmlpathology.com



**BIO-CHEMISTRY**

**METHOD WISE REPORT**

Cycle - 11/2022

Round No - 11

Date: 28/11/2022

Lab Code: 2539

Note: Your Lab is not the part of this method group

Parameters	Units	Method Group	No.of. Participants in Group	Method Wise Group Mean	Method Wise Standard deviation (SD)	Method Wise Uncertainty of Assign Values	Method Wise Range ( $\pm 2$ SD)	Your Value	Method Wise Standard Deviation Index (SDI)
Albumin	g/dL	Bromocresol Green (BCG)	102	2.9	0.2	0.03	2.5-3.4	-	-
Alkaline Phosphatase	U/L	PNPP, AMP Buffer	70	312.3	58.3	8.71	195.8-428.9	-	-
Bilirubin Total	mg/dL	Diazonium Ion	60	4.9	0.5	0.08	3.8-5.9	-	-
Calcium(Total)	mg/dL	Arsenazo iii	59	12.4	0.8	0.13	10.8-13.9	-	-
Cholesterol (Total)	mg/dL	Cholesterol Oxidase,esterase, peroxidase	68	270.9	13.7	2.08	243.4-298.3	-	-
Creatinine	mg/dL	Enzymatic	43	4.4	0.3	0.06	3.7-5.0	-	-
Glucose	mg/dL	Glucose oxidase,hydrogen peroxide(Trinder)	44	263.0	20.4	3.85	222.2-303.8	-	-
HDL	mg/dL	Direct measure-PEG	33	85.4	38.8	8.43	7.9-162.9	-	-
Potassium	mEq/L	ISE Direct	66	5.8	0.3	0.05	5.2-6.4	-	-
Protein (Total)	g/dl	Biuret, reagent blank, end point	40	4.5	0.3	0.06	3.9-5.2	-	-
Sodium	mEq/L	ISE Direct	69	154.6	4.2	0.64	146.1-163.1	-	-
SGPT/ALT	U/L	UV without P5P	44	120.6	11.8	2.22	97.0-144.2	-	-
SGOT/AST	U/L	UV without P5P	44	124.6	10.5	1.99	103.5-145.6	-	-
Triglyceride	mg/dL	Enzymatic, end point	40	254.3	10.8	2.13	232.7-275.9	-	-
Urea	mg/dL	Urease, UV	54	114.4	8.8	1.49	96.8-132.0	-	-
Uric Acid	mg/dl	Uricase, Colorimetric	74	9.1	0.9	0.13	7.3-10.9	-	-

**Interpretation of SDI:**

SDI Value(+/-)	0 - 0.5	0.6 - 0.9	1.0 - 2.0	2.1 - 2.9	$\geq 3$
Interpretation	Excellent Performance	Good Performance	Acceptable Performance	Marginal Performance Need Improvement	Unacceptable Performance Needs Urgent action

Legends	(*) Excluded From Group Mean	{ } Not Reported	(#)Late Result Submission	(\$)Reported in other Unit
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Chief Coordinator

Programme Director

Dr.Sanjay Mehrotra

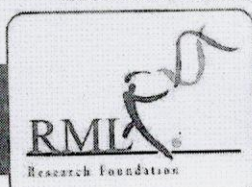
Dr.Bandana Mehrotra

Checked By

Page 2 of 7

Prepared by: SS

Doc. No.: ASS / FR / 03 B / R 01 / Dt.: 05.01.2022



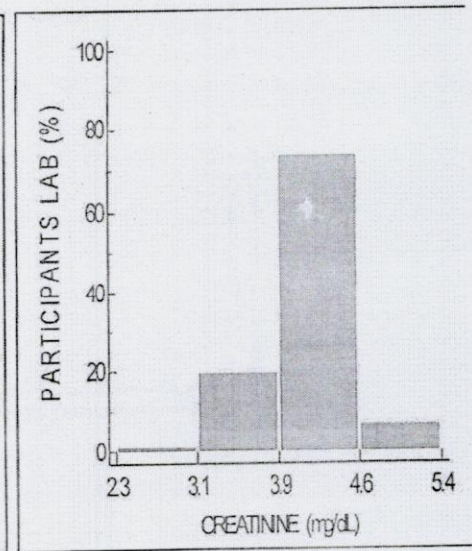
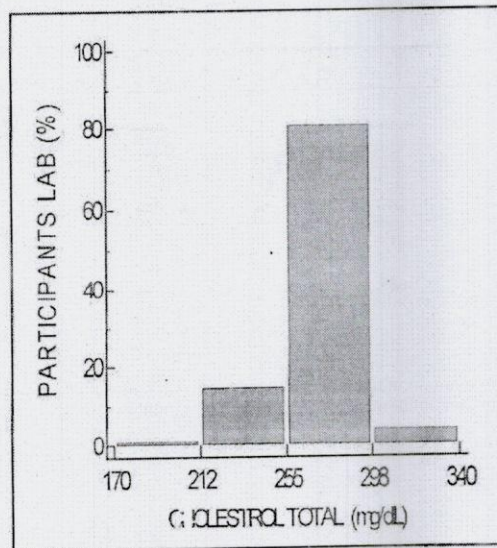
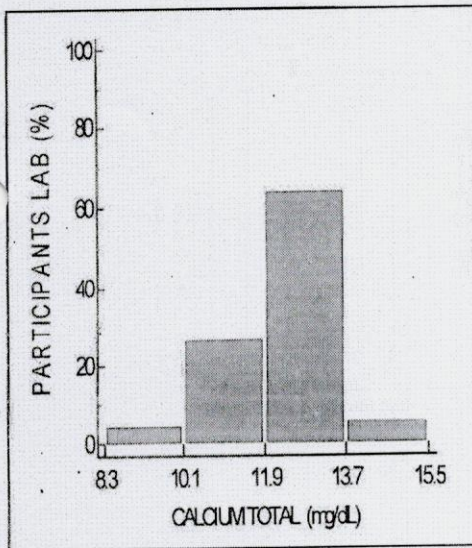
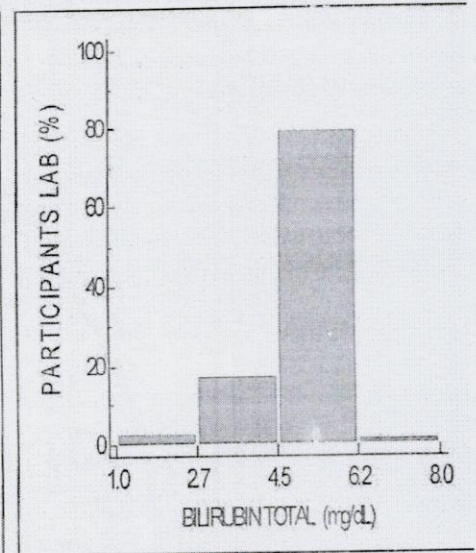
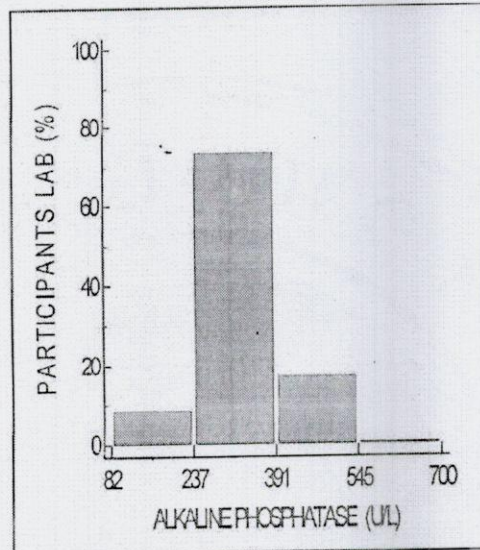
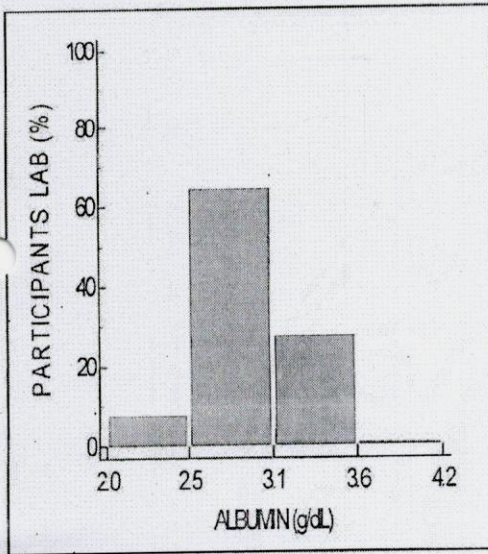


BIO-CHEMISTRY

GRAPHICAL REPORT

Cycle - 11/2022  
Round-11

Date:28/11/2022



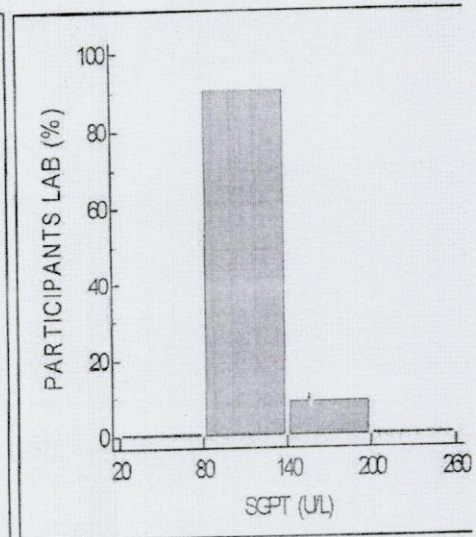
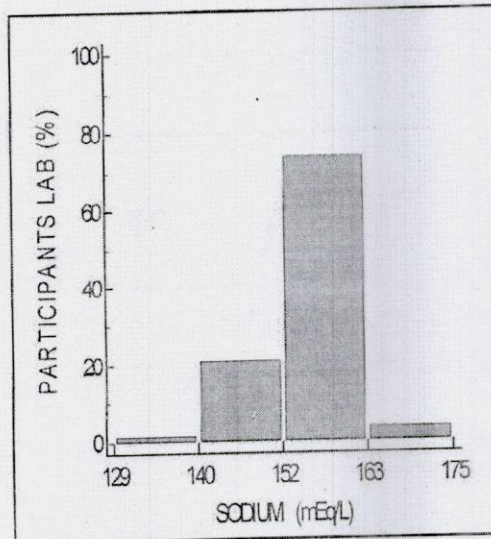
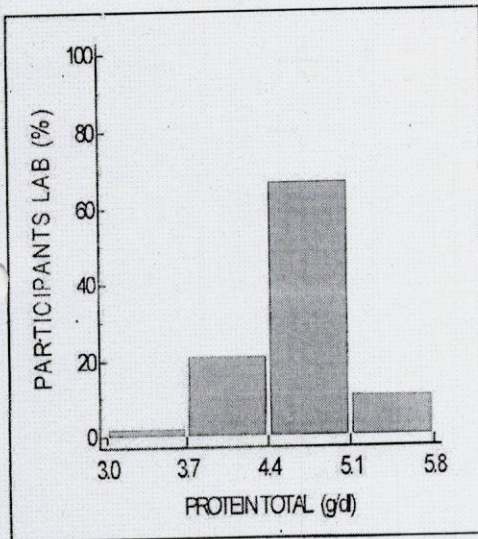
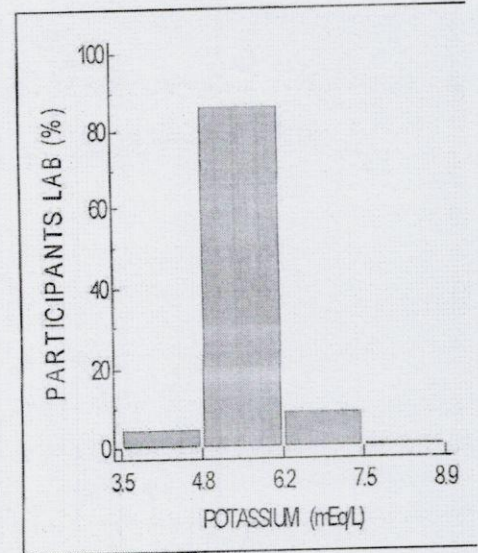
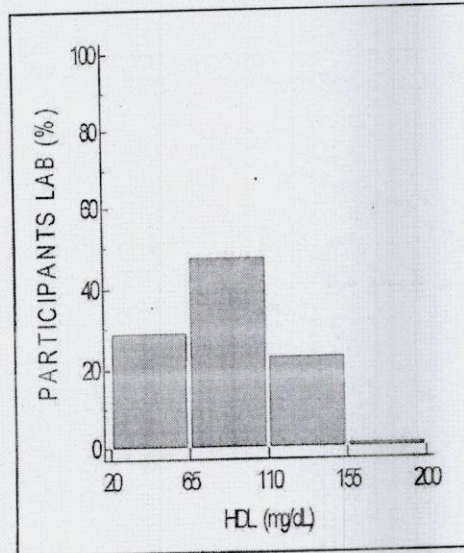
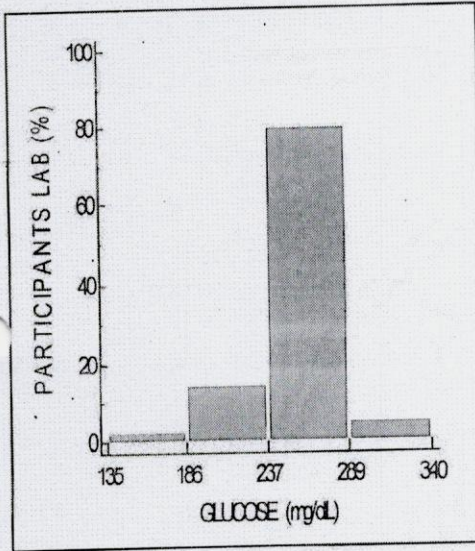


# BIO-CHEMISTRY

## GRAPHICAL REPORT

Cycle - 11/2022  
Round-11

Date:28/11/2022





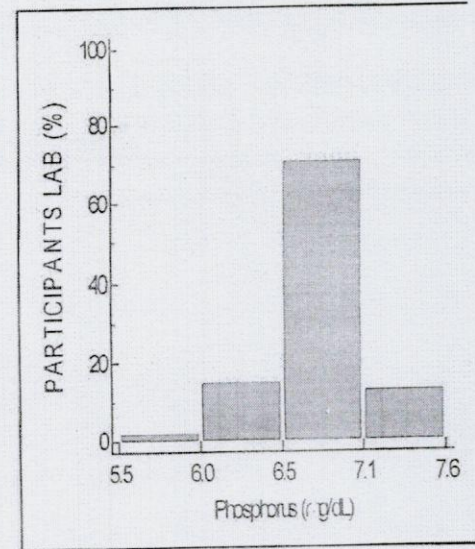
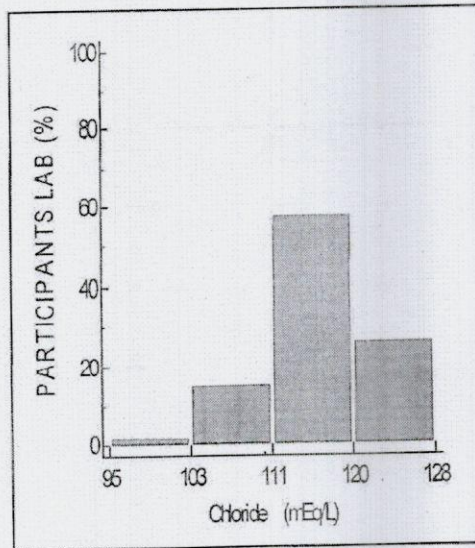
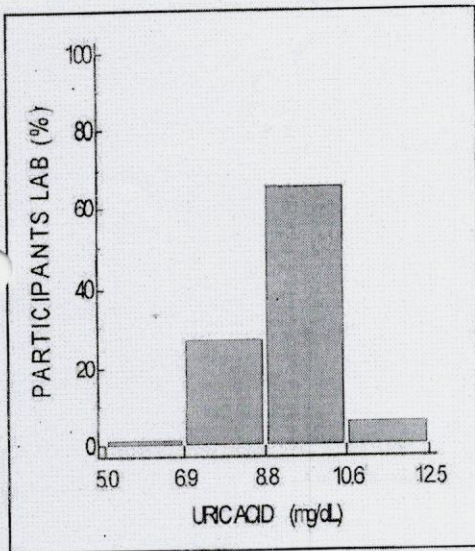
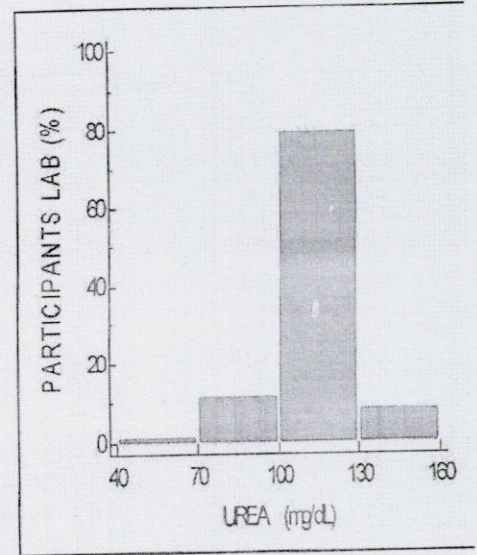
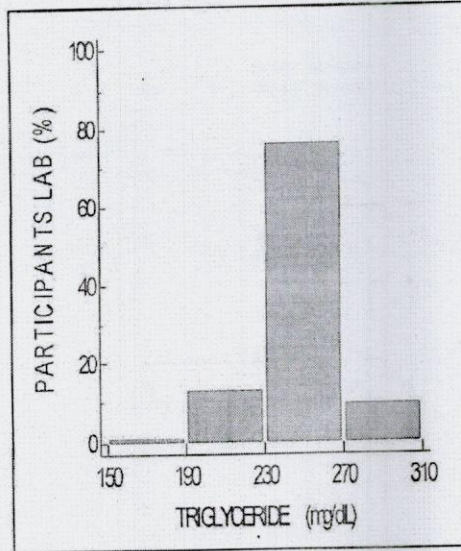
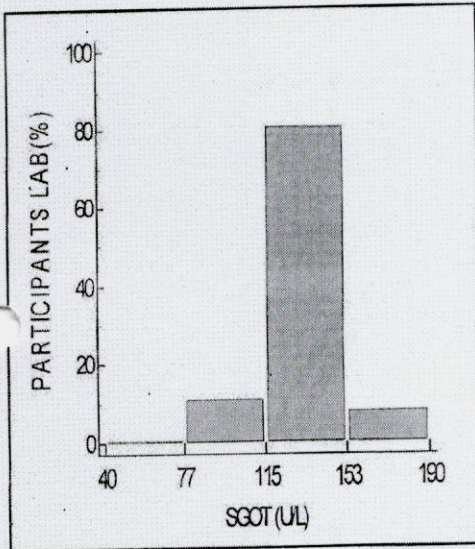


BIO-CHEMISTRY

GRAPHICAL REPORT

Cycle - 11/2022  
Round-11

Date:28/11/2022



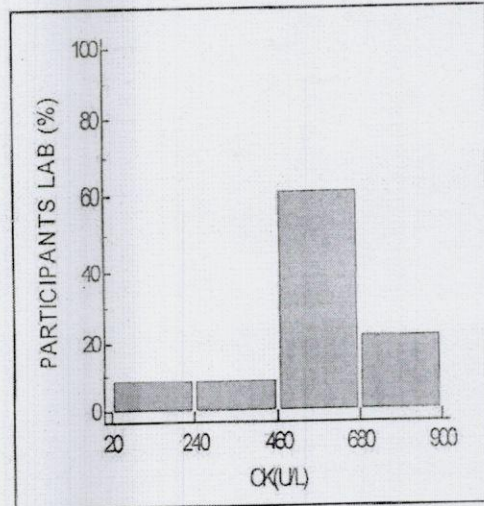
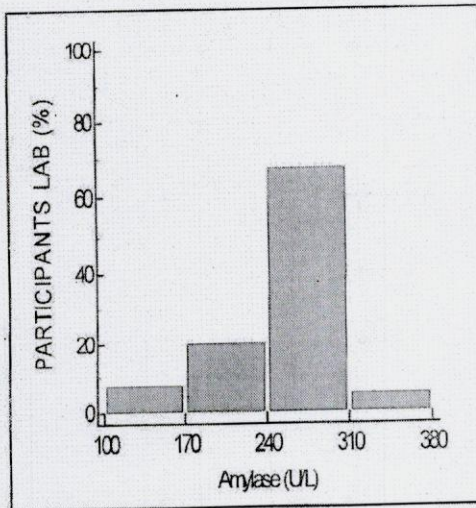
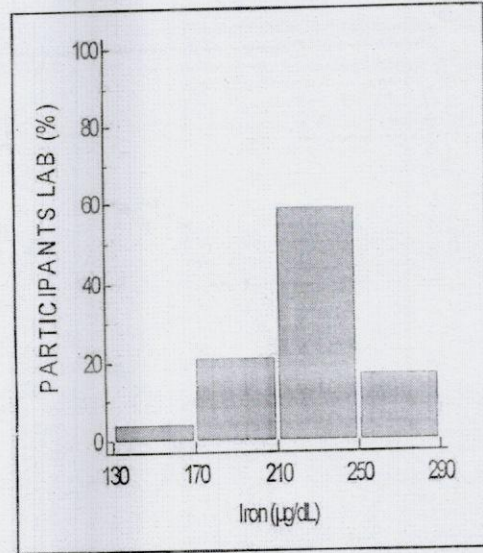
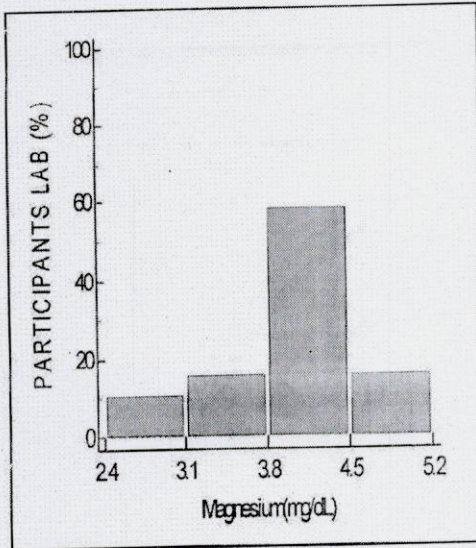


### BIO-CHEMISTRY

### GRAPHICAL REPORT

Cycle - 11/2022  
Round-11

Date:28/11/2022





## Biochemistry

### ALL PARTICIPANTS COMPLETE DATA REPORT

Cycle - 11/2022  
Round No -11

Date: 28/11/2022

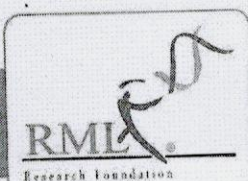
**Note:-** This report is only for information about the participants performance in the particular round

Parameters	Total No. of Participants	No. of Responses	No of Participant Excluded from Group Mean	No. of Participants SDI b/w 0.0 - 2	No. of Participants SDI b/w 2.1 - 2.9	No. of Participants SDI >3
Albumin	291	242	8	210	20	12
Alkaline Phosphatase	291	234	3	223	6	5
Bilirubin Total	291	242	1	222	9	11
Calcium(Total)	291	216	8	182	16	18
Cholesterol (Total)	291	236	9	209	11	16
Creatinine	291	246	5	230	10	6
Glucose	291	248	4	225	13	10
HDL	291	226	0	223	2	1
Potassium	291	201	5	179	10	12
Protien (Total)	291	241	7	215	11	15
Sodium	291	200	5	182	6	12
SGPT/ALT	291	242	4	221	13	8
SGOT/AST	291	242	6	208	18	16
Triglyceride	291	236	7	198	13	25
Urea	291	246	5	222	8	16
Uric Acid	291	242	5	221	12	9

**\*\*End of Report\*\***

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Doc. No.: ASS / FR / 01 / R 00 / Dt.: 01.07.2012



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Email: mailresearchfoundation@gmail.com Website: www.rmlbiochemistry.com

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### Result Reprint

Report Type :Patients

Sr #	Sample ID	Test	Result Unit	Flag	Curve #	Result Date
1	RML RAUND 11	SGPTD	126.5 U/L	H	79783	07-Nov-2022 15:12:33
2	RML RAUND 11	SGOTD	124.8 U/L	H	79784	07-Nov-2022 15:12:51
3	RML RAUND 11	ALPU	316 U/L	H	79785	07-Nov-2022 15:13:09
4	RML RAUND 11	GGT	153.6 U/L	H	79786	07-Nov-2022 15:13:27
5	RML RAUND 11	BIDD	1.55 mg/dl	H	79787	07-Nov-2022 15:13:45
6	RML RAUND 11	BIT	4.98 mg/dl	H	79788	07-Nov-2022 15:14:03
7	RML RAUND 11	UREA	129.8 mg/dl	H	79789	07-Nov-2022 15:14:21
8	RML RAUND 11	CRENZ	4.18 mg/dl	H	79790	07-Nov-2022 15:14:39
9	RML RAUND 11	GLU	270.1 mg/dl	H	79791	07-Nov-2022 15:14:57
10	RML RAUND 11	TRIG	252.5 mg/dl	H	79792	07-Nov-2022 15:15:15
11	RML RAUND 11	CHOL	264 mg/dl	H	79793	07-Nov-2022 15:15:33
12	RML RAUND 11	HDLC	63.2 mg/dl		79794	07-Nov-2022 15:16:09
13	RML RAUND 11	UA	10.5 mg/dl	H	79795	07-Nov-2022 15:16:27
14	RML RAUND 11	CA	13.4 mg/dl	H	79796	07-Nov-2022 15:16:45
15	RML RAUND 11	ALBD	3.04 g/dl	L	79797	07-Nov-2022 15:17:03
16	RML RAUND 11	PRO	5.01 g/dl	L	79798	07-Nov-2022 15:17:21

*Pice*



# RML - Quality Assurance Program (RML - QAP)



BIO-CHEMISTRY-01 (Basic)

(Filled by Participant)

(Filled by QAP Provider)

Lab Code No. **2539**

Cycle No.: 11

Round No.: 11

Last Date for Result Submission- 10-11-2022

Sample Testing Date: **07/11/2022**

The lyophilized sample is being provided. Kindly process the following analytes.

Sr. No	Name of the Test	Result	Units	Method
1.	Albumin	<input type="checkbox"/> 3.04	g/dL	BCG
2.	Alkaline Phosphatase	<input type="checkbox"/> 16	U/L	IFCC With AMP Buffer
3.	Bilirubin Total	<input type="checkbox"/> 4.98	mg/dL	Diazo (Walter & Gerade)
4.	Calcium (Total)	<input type="checkbox"/> 13.4	mg/dL	Arsenazo
5.	Cholesterol (Total)	<input type="checkbox"/> 264	mg/dL	CHOD-PAP
6.	Creatinine	<input type="checkbox"/> 4.18	mg/dL	ENZYMATIC
7.	Glucose	<input type="checkbox"/> 270	mg/dL	GOD-POD
8.	HDL	<input type="checkbox"/> 63.2	mg/dL	HDL Direct
9.	Potassium	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	mEq/L	HP
10.	Protein (Total)	<input type="checkbox"/> 5.01	g/dL	Biuret
11.	Sodium	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	mEq/L	HP
12.	SGPT/ALT	<input type="checkbox"/> 26.5	U/L	IFCC Without pyridoxal phosphate
13.	SGOT/AST	<input type="checkbox"/> 24.8	U/L	IFCC Without pyridoxal phosphate
14.	Triglyceride	<input type="checkbox"/> 52	mg/dL	GPO-Trinder
15.	Urea	<input type="checkbox"/> 29	mg/dL	Urease-GLOH
16.	Uric Acid	<input type="checkbox"/> 0.5	mg/dL	Uricase-POD

Note:-

- It is mandatory to attach the machine printout along with the result.
- You are request to report the result only in above mentioned decimal point & units.
- You may also send your results through mail, to avoid any delay in result submission

**DONE BY**

**QUALITY MANAGER**

**LAB DIRECTOR**

Doc. No: RES / FR / 03 / R 01 / Dt.: 05.01.2022

Page 1 of 1

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RML Research Foundation

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**EXCELLAS CLINICS**



External Quality Assurance Program Evaluation Form

Discipline: Biochemistry

Date	Test / Parameters	EQAS : RIQAS-RML		Report Received on	Findings / Zscore	Corrective Action	MONTH:OCT-2022
		Sample Details	Date of run				
01/11/2022	ABUMIN ALAKALINE PHOSPHATASE ALT: (SGPT) AMYLASE ASTL (SGOT) BILIRUBIN DIRECT BILIRUBIN TOTAL CALCIUM CHLORIDE CHOLESTEROL CREATININE GGT GLUCOSE LDL CHOLESTEROL LIPASE PHOSPHORUS POTASSIUM TOTAL PROTEIN SODIUM TRIGLYCERIDE UREA CALCIUM IONISED URIC ACID	Serum	06/10/2022	29/10/2022	All parameters are within 2.0 SD(zscore)	NA	Result Satisfactory
FORM NAME : EQAS EVALUATION FORM-BIOCHEMISTRY AND IMMUNOASSAY						M/EQAS-EVAL-BIO/QM/TP/01	
FORM NO: 01							ISSUE BY : QM
ISSUE NO: 01							APPROVED BY: LD
AMMEN NO: 00							

Lab code : 2539

ROUND NO: 10

MONTH:OCT-2022

Qm/LD

Remarks

APPROVED BY: LD



## BIO-CHEMISTRY-01

### ALL METHOD REPORT

Lab Code: 2539

Cycle - 11/2022  
Round No - 10

Date: 20/10/2022

Parameters	Units	No.of. Participants	Group Mean	Standard deviation (SD)	Uncertainty of Assign Values	Range ( $\pm 2$ SD)	Your Value	Standard Deviation Index (SDI)
Albumin	g/dl.	231	2.9	0.2	0.02	2.5-3.4	2.9	-0.1
Alkaline Phosphatase	U/L	223	319.6	75.3	6.30	169.0-470.2	355	0.5
Bilirubin Total	mg/dL	232	5.0	0.5	0.04	4.0-6.0	5.5	1.0
Calcium(Total)	mg/dL	204	12.4	0.8	0.07	10.7-14.0	13.0	0.8
Cholesterol (Total)	mg/dL	227	271.1	15.9	1.32	239.3-302.8	256	-0.9
Creatinine	mg/dL	236	4.2	0.4	0.03	3.5-4.9	4.0	-0.5
Glucose	mg/dL	234	259.8	17.6	1.44	224.6-294.9	268	0.5
HDL	mg/dL	216	86.1	31.6	2.69	22.9-149.2	58.7	-0.9
Potassium	mEq/L	194	5.8	0.3	0.03	5.2-6.4	.	-
Protein (Total)	g/dl	227	4.6	0.3	0.03	3.9-5.3	5.0	1.2
Sodium	mEq/L	194	155.1	4.7	0.42	145.7-164.4	.	-
SGPT/ALT	U/L	230	123.9	13.1	1.08	97.7-150.0	124	0.0
SGOT/AST	U/L	229	129.7	13.7	1.13	102.2-157.2	124	-0.4
Triglyceride	mg/dL	225	250.0	17.2	1.43	215.6-284.4	248	-0.1
Urea	mg/dL	235	114.5	10.0	0.81	94.6-134.4	115	0.1
Uric Acid	mg/dl	232	9.2	0.7	0.06	7.7-10.6	10.4	1.7

#### Interpretation of SDI:

SDI Value(+/-)	0 - 0.5	0.6 - 0.9	1.0 - 2.0	2.1 - 2.9	$\geq 3$
Interpretation	Excellent Performance	Good Performance	Acceptable Performance	Marginal Performance Need Improvement	Unacceptable Performance Needs Urgent action

Legends	(*) Excluded From Group	(.) Not Reported	(#)Late Result	(\$)Reported in
---------	-------------------------	------------------	----------------	-----------------

Chief Coordinator

Dr. Sanjay Mehrotra

Programme Director

Dr. Bandana Mehrotra

Checked By:

Prepared by: SS

Page 1 of 7

Doc. No.: ASS/FR/03/R01/Dt.: 05.01.2022



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# RML - Quality Assurance Program (RML - QAP)



## BIO-CHEMISTRY

### METHOD WISE REPORT

Cycle - 11/2022

Round No - 10

Lab Code: 2539

Date: 20/10/2022

Note: Your Lab is not the part of this method group

Parameters	Units	Method Group	No. of Participants in Group	Method Wise Group Mean	Method Wise Standard deviation (SD)	Method Wise Uncertainty of Assign Values	Method Wise Range ( $\pm 2$ SD)	Your Value	Method Wise Standard Deviation Index (SDI)
Albumin	g/dL	Bromocresol Green (BCG)	104	2.9	0.3	0.03	2.4-3.5	-	-
Alkaline Phosphatase	U/L	PNPP, AMP Buffer	70	310.7	63.4	9.47	183.9-437.5	-	-
Bilirubin Total	mg/dL	Diazonium Ion	61	5.0	0.6	0.09	3.9-6.1	-	-
Calcium(Total)	mg/dL	Arsenazo iii	59	12.4	0.9	0.15	10.6-14.2	-	-
Cholesterol (Total)	mg/dL	Cholesterol Oxidase, esterase, peroxidase	70	273.1	15.3	2.28	242.5-303.7	-	-
Creatinine	mg/dL	Enzymatic	43	4.4	0.3	0.05	3.8-4.9	-	-
Glucose	mg/dL	Glucose oxidase, hydrogen peroxide (Trinder)	42	263.5	13.0	2.51	237.5-289.5	-	-
HDL	mg/dL	Direct measure-PEG	32	88.9	37.4	8.26	14.1-163.6	-	-
Potassium	mEq/L	ISE Direct	67	5.8	0.3	0.04	5.2-6.3	-	-
Protein (Total)	g/dl	Biuret, reagent blank, end point	41	4.5	0.3	0.06	3.9-5.2	-	-
Sodium	mEq/L	ISE Direct	69	155.6	3.7	0.56	148.1-163.1	-	-
SGPT/ALT	U/L	UV without P5P	43	122.0	9.9	1.88	102.3-141.7	-	-
SGOT/AST	U/L	UV without P5P	42	124.4	9.8	1.88	104.9-144.0	-	-
Triglyceride	mg/dL	Enzymatic, end point	39	250.5	16.2	3.24	218.1-282.9	-	-
Urea	mg/dL	Urease, UV	54	113.7	10.1	1.71	93.6-133.8	-	-
Uric Acid	mg/dl	Uricase, Colorimetric	73	9.0	0.6	0.09	7.9-10.2	-	-

### Interpretation of SDI:

SDI Value(+/-)	0 - 0.5	0.6 - 0.9	1.0 - 2.0	2.1 - 2.9	$\geq 3$
Interpretation	Excellent Performance	Good Performance	Acceptable Performance	Marginal Performance Need Improvement	Unacceptable Performance Needs Urgent action

Legends	(*) Excluded From Group Mean	[.] Not Reported	(#) Late Result Submission	(S) Reported in other Unit
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Chief Coordinator

*[Signature]*

Dr. Sanjay Mehrotra

Checked By: *[Signature]*

Prepared by: SS *[Signature]*

Programme Director

*[Signature]*

Dr. Bandana Mehrotra

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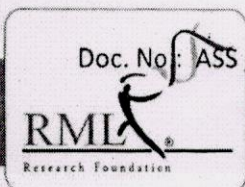
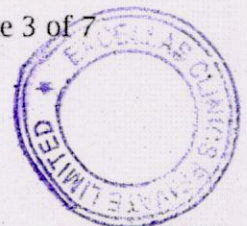
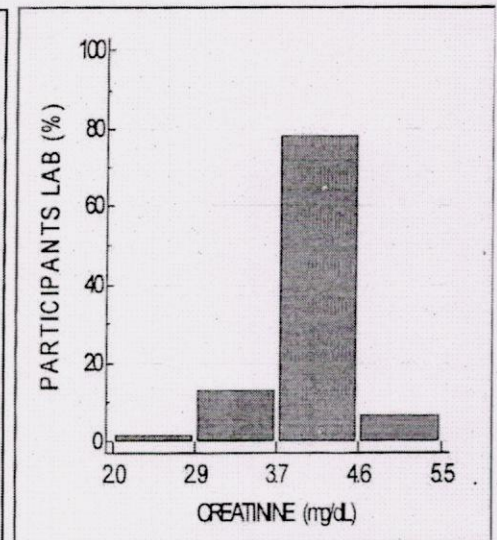
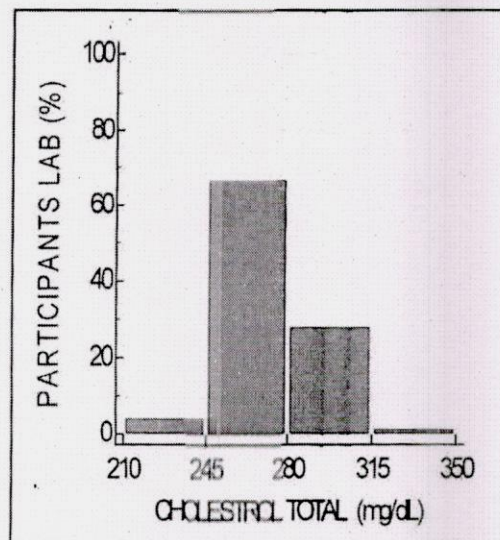
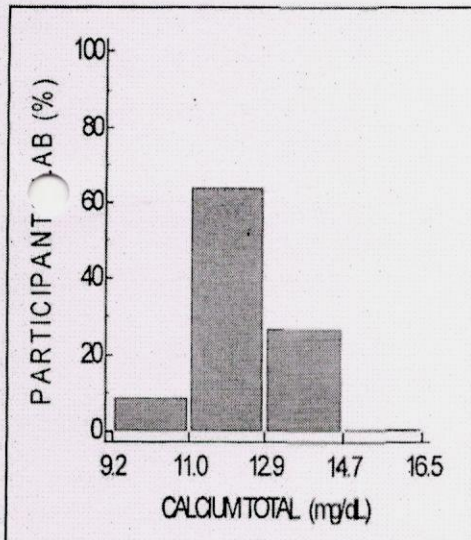
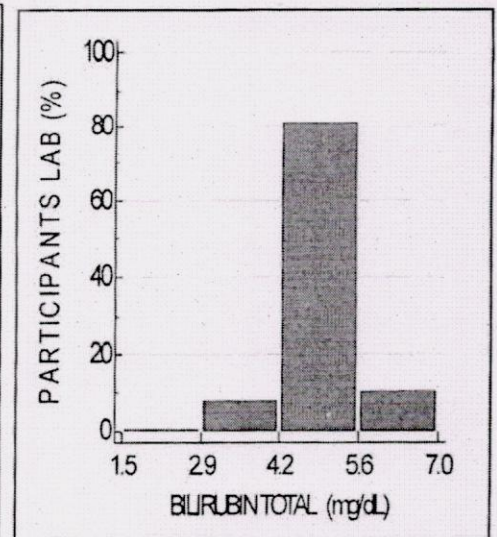
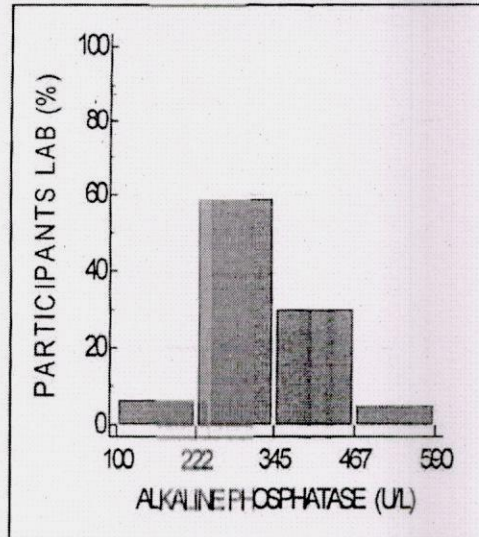
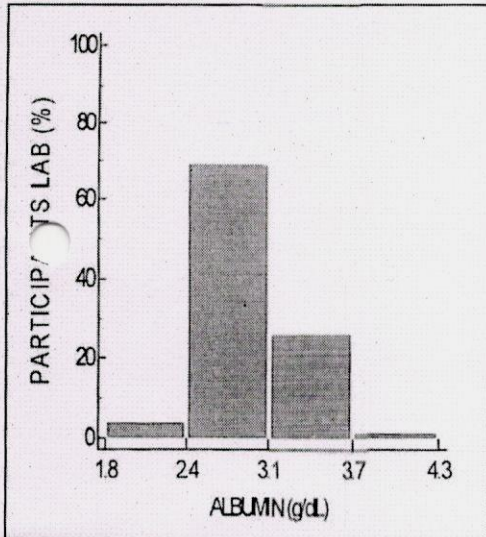


BIO-CHEMISTRY

GRAPHICAL REPORT

Cycle - 11/2022  
Round-10

Date:20/10/2022



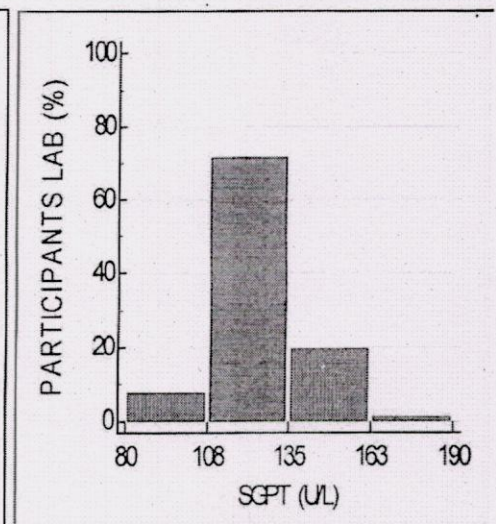
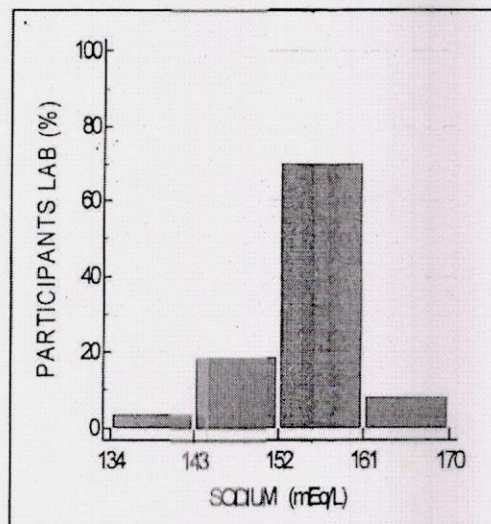
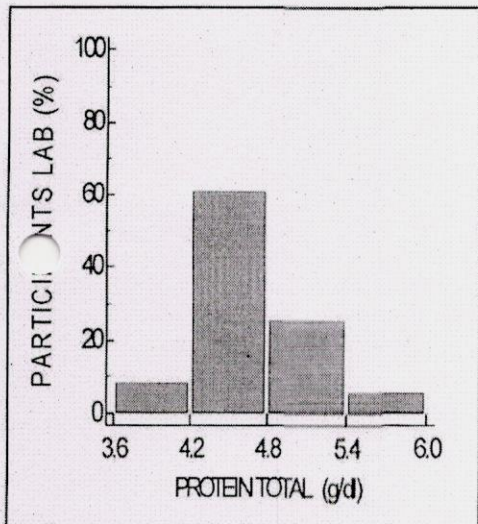
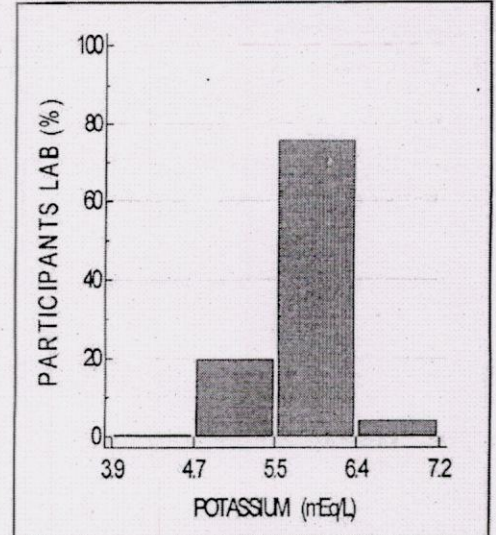
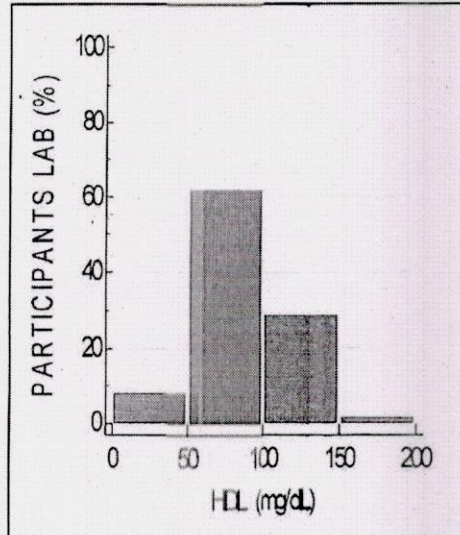
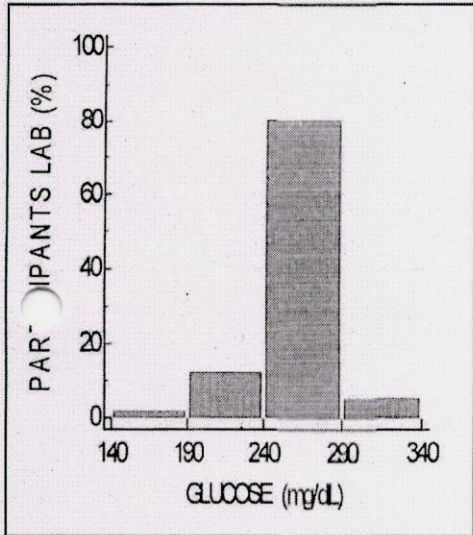


BIO-CHEMISTRY

GRAPHICAL REPORT

Cycle - 11/2022  
Round-10

Date:20/10/2022



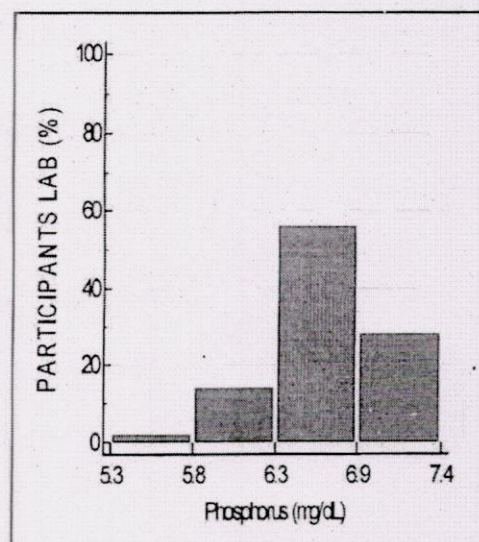
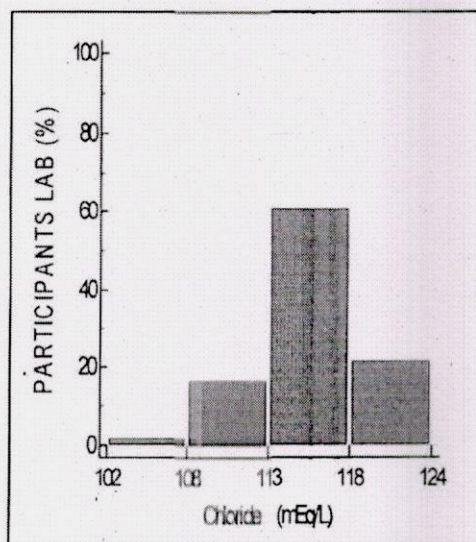
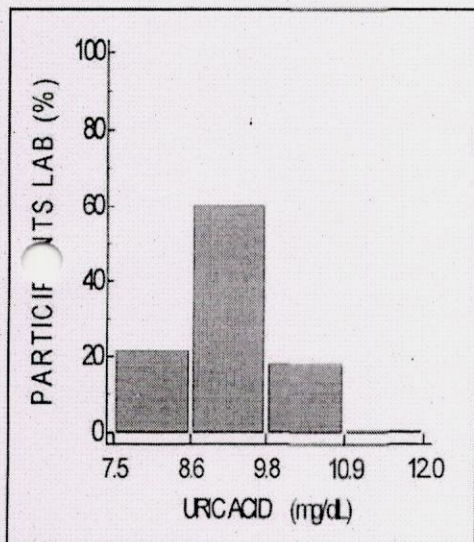
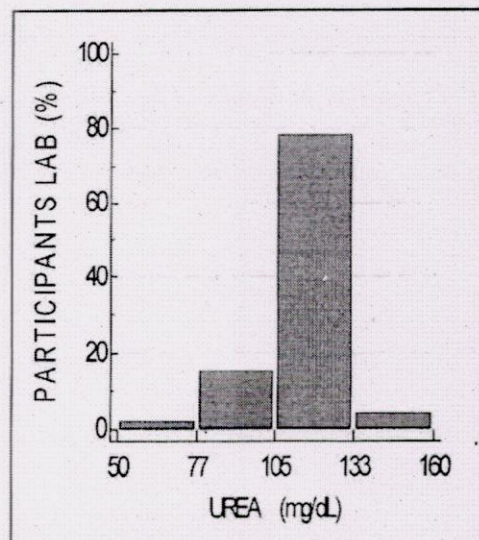
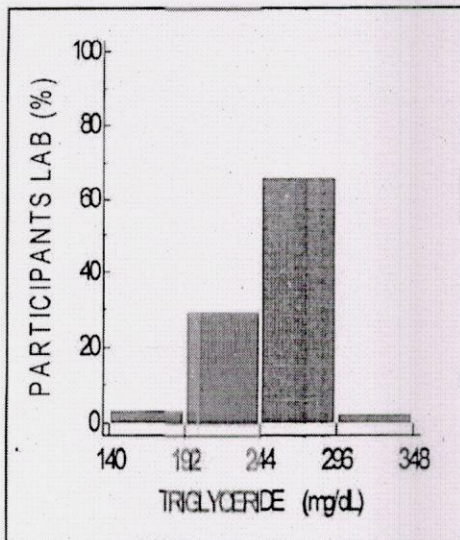
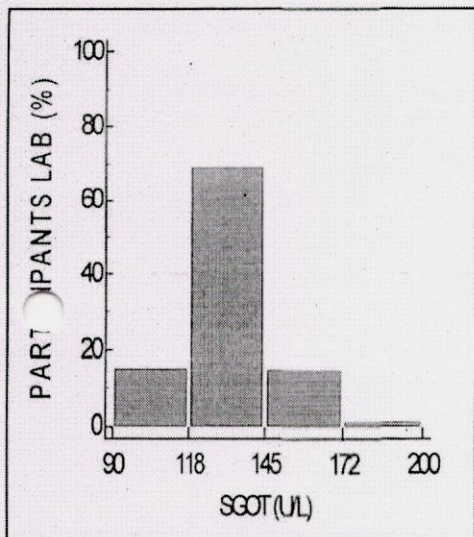


BIO-CHEMISTRY

GRAPHICAL REPORT

Cycle - 11/2022  
Round-10

Date:20/10/2022



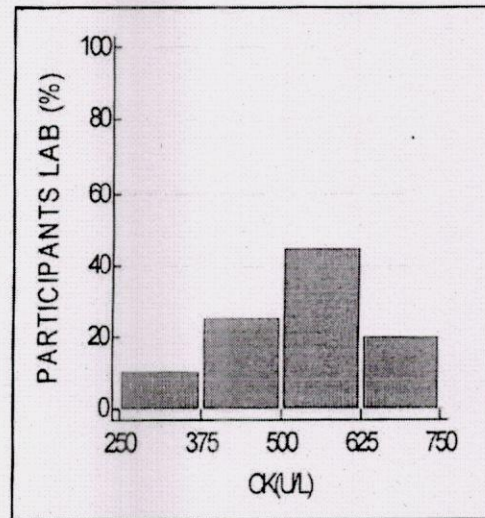
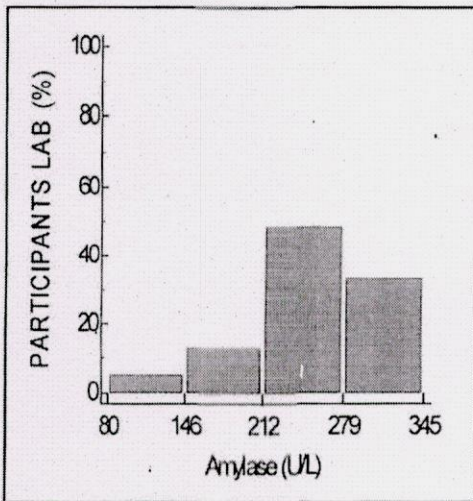
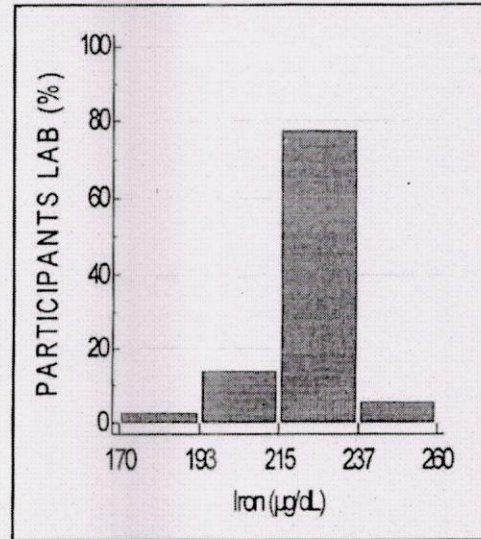
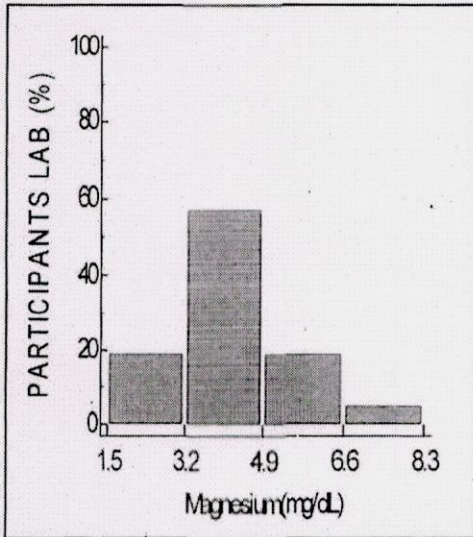


BIO-CHEMISTRY

GRAPHICAL REPORT

Cycle - 11/2022  
Round-10

Date:20/10/2022





## Biochemistry

### ALL PARTICIPANTS COMPLETE DATA REPORT

Cycle - 11/2022  
Round No -10

Date: 20/10/2022

**Note:-** This report is only for information about the participants performance in the particular round

Parameters	Total No. of Participants	No. of Responses	No of Participant Excluded from Group Mean	No. of Participants SDI b/w 0.0 - 2	No. of Participants SDI b/w 2.1 - 2.9	No. of Participants SDI >3
Albumin	284	236	4	207	16	13
Alkaline Phosphatase	284	226	2	210	12	4
Bilirubin Total	284	237	6	211	13	13
Calcium(Total)	284	207	15	173	13	21
Cholesterol (Total)	284	231	8	207	10	14
Creatinine	284	241	5	219	7	15
Glucose	284	239	4	213	11	15
HDL	284	217	0	210	6	1
Potassium	284	196	5	171	11	14
Protien (Total)	284	231	12	198	14	19
Sodium	284	196	6	178	6	12
SGPT/ALT	284	235	4	211	13	11
SGOT/AST	284	234	4	204	16	14
Triglyceride	284	229	5	201	9	19
Urea	284	240	6	213	10	17
Uric Acid	284	237	8	208	17	12

**\*\*End of Report\*\***

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### Result Reprint

Report Type :Patients

Sr #	Sample ID	Test	Result Unit	Flag	Curve #	Result Date
1	RML ROUND 10	SGPTD	124.4 U/L	H	74035	06-Oct-2022 16:37:02
2	RML ROUND 10	SGOTD	124.5 U/L	H	74036	06-Oct-2022 16:37:20
3	RML ROUND 10	ALPU	355 U/L	H	74037	06-Oct-2022 16:37:38
4	RML ROUND 10	GGT	147.5 U/L	H	74038	06-Oct-2022 16:37:56
5	RML ROUND 10	BIDD	1.49 mg/dl	H	74039	06-Oct-2022 16:38:14
6	RML ROUND 10	BIT	5.50 mg/dl	H	74040	06-Oct-2022 16:38:33
7	RML ROUND 10	UREA	115.8 mg/dl	H	74041	06-Oct-2022 16:38:51
8	RML ROUND 10	CRENZ	4.07 mg/dl	H	74042	06-Oct-2022 16:39:09
9	RML ROUND 10	GLU	268.5 mg/dl	H	74043	06-Oct-2022 16:39:26
10	RML ROUND 10	TRIG	248.7 mg/dl	H	74044	06-Oct-2022 16:39:45
11	RML ROUND 10	CHOL	256 mg/dl	H	74045	06-Oct-2022 16:40:03
12	RML ROUND 10	HDLC	58.7 mg/dl		74046	06-Oct-2022 16:40:39
13	RML ROUND 10	UA	10.4 mg/dl	H	74047	06-Oct-2022 16:40:57
14	RML ROUND 10	CA	13.0 mg/dl	H	74048	06-Oct-2022 16:41:15
15	RML ROUND 10	ALBD	2.94 g/dl	L	74049	06-Oct-2022 16:41:33
16	RML ROUND 10	PRO	5.02 g/dl	L	74050	06-Oct-2022 16:41:51





CONTROLLED COPY



**EXCELLAS CLINICS**

External Quality Assurance Program Evaluation Form

Discipline: Biochemistry

Date	Test / Parameters	EQAS : RIQAS-RML		ROUND NO: 09		MONTH: SEPT-2022		
		Sample Details	Date of run	Report Received on	Findings / Zscore	Corrective Action	QM/LD	Remarks
06/10/2022	ABUMIN ALAKALINE PHOSPHATASE ALT (SGPT) AMYLASE ASTL (SGOT) BILIRUBIN DIRECT BILIRUBIN TOTAL CALCIUM CHLORIDE CHOLESTEROL CREATININE GGT GLUCOSE LDL CHOLESTEROL LIPASE PHOSPHORUS POTASSIUM TOTAL PROTEIN SODIUM TRIGLYCERIDE UREA CALCIUM IONISED URIC ACID	Serum	07/09/2022	24/09/2022	All parameters are within 2.0 SDI(zscore)	NA		Result Satisfactory

FORM NO: 01	FORM NAME : EQAS EVALUATION FORM-BIOCHEMISTRY AND IMMUNOASSAY		M/EQAS-EVAL-BIO/QM/TP/01
ISSUE NO: 01	ISSUE DATE: 01/06/2022		ISSUE BY : QM
AMMEN NO: 00	AMMEND DATE : 00		APPROVED BY: LD



## BIO-CHEMISTRY-01

### ALL METHOD REPORT

Lab Code: 2539

Cycle - 11/2022  
Round No - 9

Date: 24/09/2022

Parameters	Units	No.of. Participants	Group Mean	Standard deviation (SD)	Uncertainty of Assign Values	Range ( $\pm 2$ SD)	Your Value	Standard Deviation Index (SDI)
Albumin	g/dL	238	4.1	0.3	0.02	3.5-4.6	4.0	-0.2
Alkaline Phosphatase	U/L	227	175.9	34.8	2.89	106.3-245.5	210	1.0
Bilirubin Total	mg/dL	239	1.5	0.2	0.02	1.0-1.9	1.5	0.1
Calcium(Total)	mg/dL	210	8.9	0.6	0.05	7.7-10.1	9.2	0.5
Cholesterol (Total)	mg/dL	233	166.8	20.4	1.67	126.1-207.6	145	-1.1
Creatinine	mg/dL	242	1.4	0.2	0.01	1.0-1.8	1.5	0.6
Glucose	mg/dL	242	105.1	9.9	0.80	85.2-124.9	102	-0.3
HDL	mg/dL	223	56.2	16.4	1.37	23.4-88.9	44.3	-0.7
Potassium	mEq/L	200	3.9	0.2	0.02	3.5-4.3	.	-
Protein (Total)	g/dl	236	5.8	0.4	0.03	5.1-6.5	5.8	0.1
Sodium	mEq/L	197	138.5	4.0	0.36	130.5-146.6	.	-
SGPT/ALT	U/L	238	30.2	4.0	0.32	22.2-38.1	28	-0.5
SGOT/AST	U/L	238	31.0	4.5	0.37	22.0-40.1	28	-0.7
Triglyceride	mg/dL	235	93.1	9.3	0.76	74.4-111.8	97	0.4
Urea	mg/dL	241	43.4	3.9	0.32	35.5-51.3	43	-0.1
Uric Acid	mg/dl	239	5.8	0.6	0.05	4.6-7.0	6.6	1.4

### Interpretation of SDI:

SDI Value(+/-)	0 - 0.5	0.6 - 0.9	1.0 - 2.0	2.1 - 2.9	$\geq 3$
Interpretation	Excellent Performance	Good Performance	Acceptable Performance	Marginal Performance Need Improvement	Unacceptable Performance Needs Urgent action

Legends	(*) Excluded From Group	{ } Not Reported	(#) Late Result	(S) Reported in
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Chief Coordinator

Dr. Sanjay Mehrotra

Checked By:

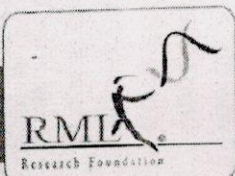
Prepared by: SS

Doc. No.: ASS / FR / 03 / R 01 / Dt.: 05.01.2022

Programme Director

Dr. Bandana Mehrotra

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# RML - Quality Assurance Program (RML - QAP)



## BIO-CHEMISTRY

### METHOD WISE REPORT

Cycle - 11/2022

Round No - 9

Lab Code: 2539

Date: 24/09/2022

Note: Your Lab is not the part of this method group

Parameters	Units	Method Group	No. of Participants in Group	Method Wise Group Mean	Method Wise Standard deviation (SD)	Method Wise Uncertainty of Assign Values	Method Wise Range ( $\pm 2$ SD)	Your Value	Method Wise Standard Deviation Index (SDI)
Albumin	g/dL	Bromocresol Green (BCG)	102	4.1	0.3	0.03	3.5-4.6	-	-
Alkaline Phosphatase	U/L	PNPP, AMP Buffer	68	175.0	26.3	3.98	122.5-227.5	-	-
Bilirubin Total	mg/dL	Diazonium Ion	61	1.5	0.2	0.03	1.1-1.9	-	-
Calcium(Total)	mg/dL	Arsenazo III	60	9.0	0.6	0.10	7.7-10.2	-	-
Cholesterol (Total)	mg/dL	Cholesterol Oxidase, esterase, peroxidase	69	170.7	20.7	3.12	129.3-212.2	-	-
Creatinine	mg/dL	Enzymatic	43	1.4	0.2	0.03	1.1-1.7	-	-
Glucose	mg/dL	Glucose oxidase, hydrogen peroxide (Trinder)	44	107.4	8.3	1.57	90.8-124.0	-	-
HDL	mg/dL	Direct measure-PEG	33	54.2	21.5	4.67	11.2-97.2	-	-
Potassium	mEq/L	ISE Direct	66	3.9	0.2	0.03	3.5-4.2	-	-
Protein (Total)	g/dL	Biuret, reagent blank, end point	42	5.8	0.3	0.07	5.1-6.4	-	-
Sodium	mEq/L	ISE Direct	66	138.7	3.2	0.49	132.2-145.1	-	-
SGPT/ALT	U/L	UV without P5P	42	30.3	3.2	0.61	23.9-36.6	-	-
SGOT/AST	U/L	UV without P5P	42	29.8	3.8	0.74	22.1-37.4	-	-
Triglyceride	mg/dL	Enzymatic, end point	38	91.3	10.7	2.16	70.0-112.6	-	-
Urea	mg/dL	Urease, UV	54	43.6	3.3	0.56	37.0-50.3	-	-
Uric Acid	mg/dL	Uricase, Colorimetric	68	5.8	0.5	0.07	4.8-6.7	-	-

#### Interpretation of SDI:

SDI Value(+/-)	0 - 0.5	0.6 - 0.9	1.0 - 2.0	2.1 - 2.9	$\geq 3$
Interpretation	Excellent Performance	Good Performance	Acceptable Performance	Marginal Performance Need Improvement	Unacceptable Performance Needs Urgent action

Legends	(*) Excluded From Group Mean	[.] Not Reported	(#) Late Result Submission	(S) Reported in other Unit
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Chief Coordinator

*[Signature]*  
Dr. Sanjay Mehrotra

Checked By

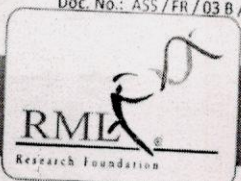
Prepared by: SS

Programme Director

*[Signature]*  
Dr. Bandana Mehrotra

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# RML – Quality Assurance Program (RML – QAP)

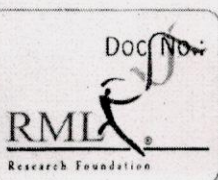
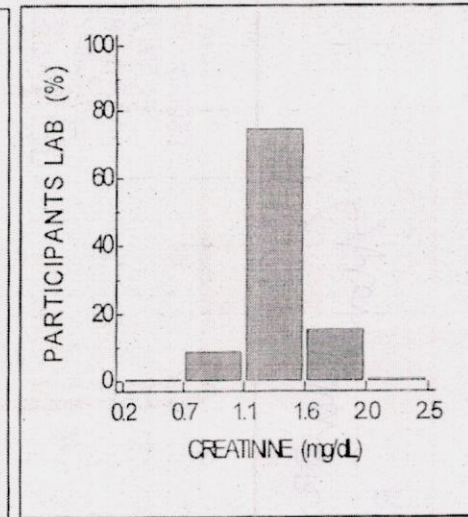
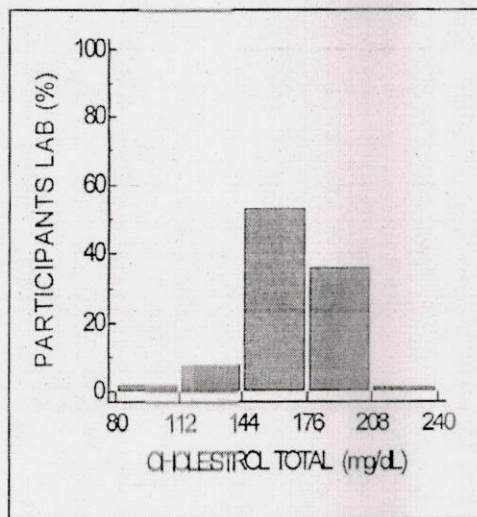
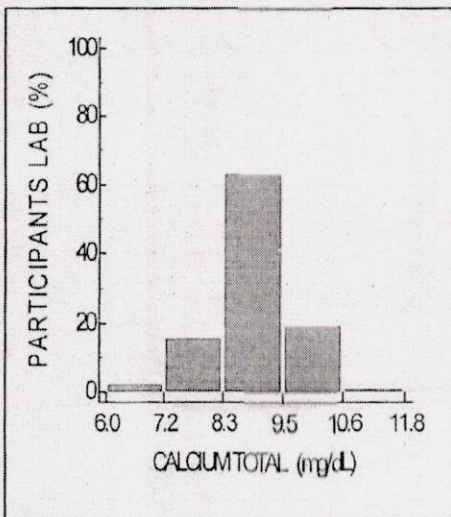
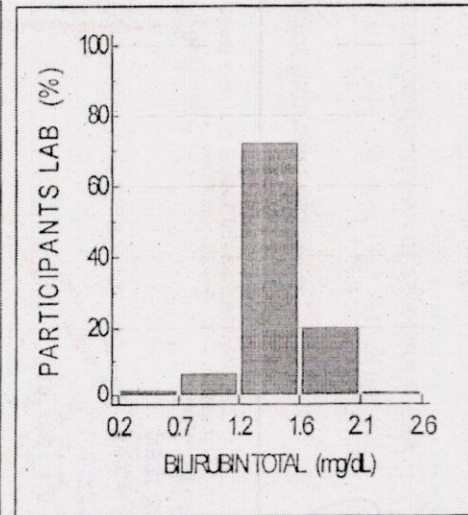
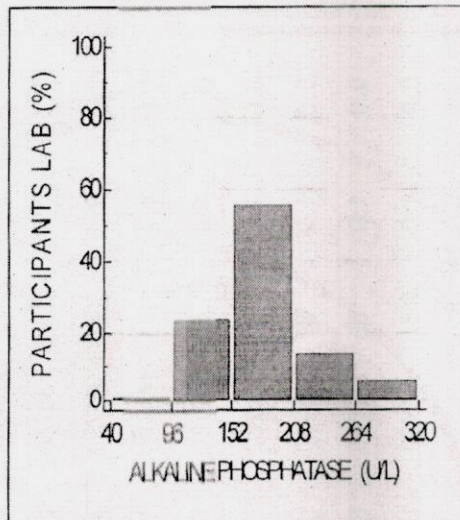
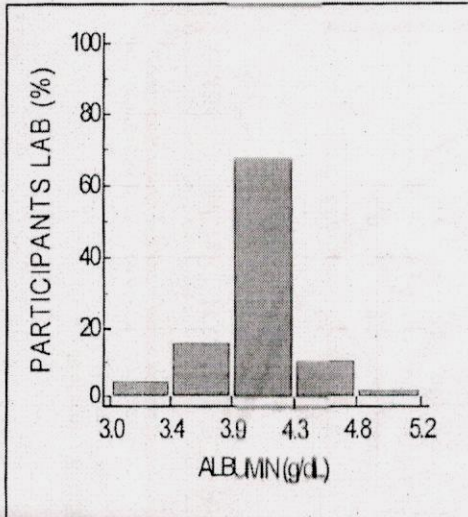


## BIO-CHEMISTRY

### GRAPHICAL REPORT

Cycle - 11/2022  
Round-9

Date:24/09/2022





# RML – Quality Assurance Program (RML – QAP)

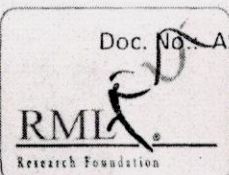
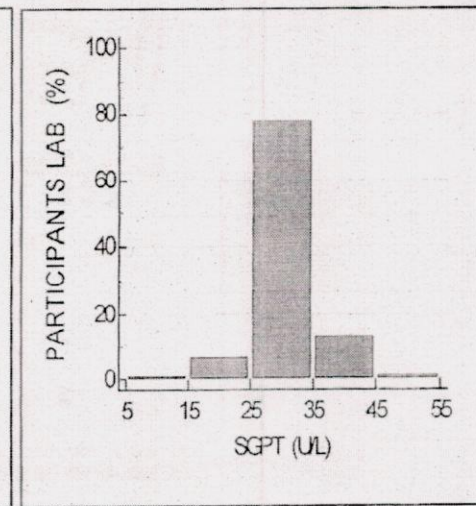
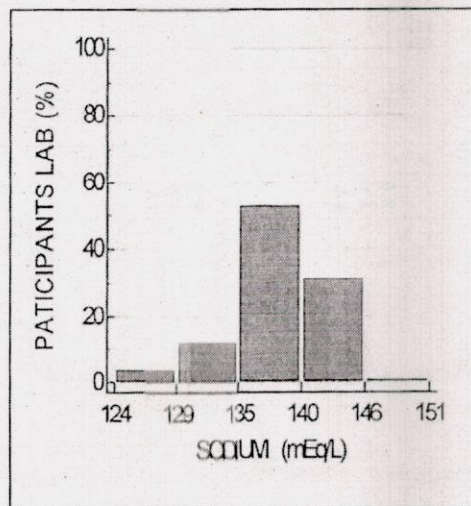
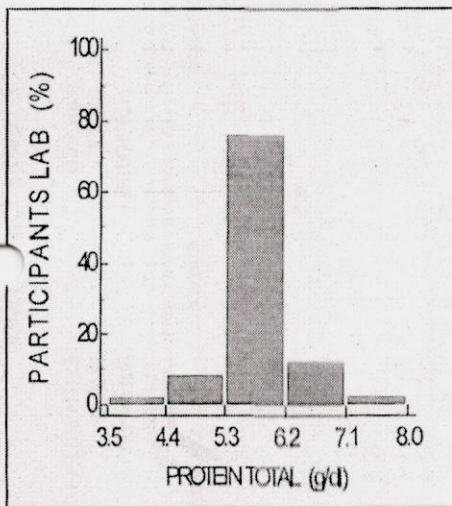
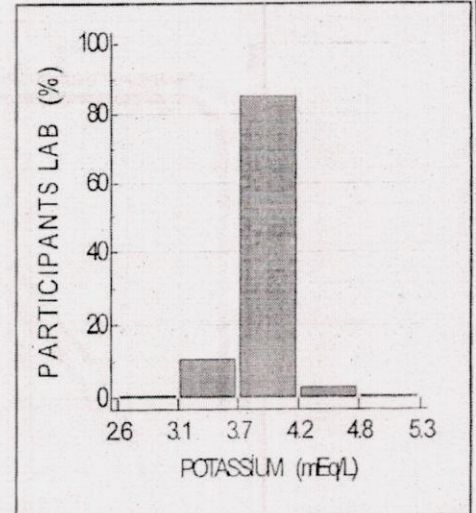
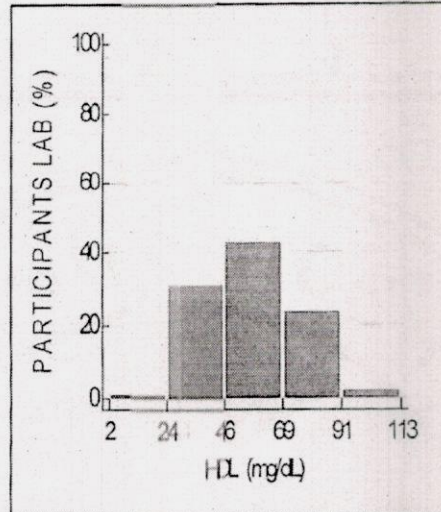
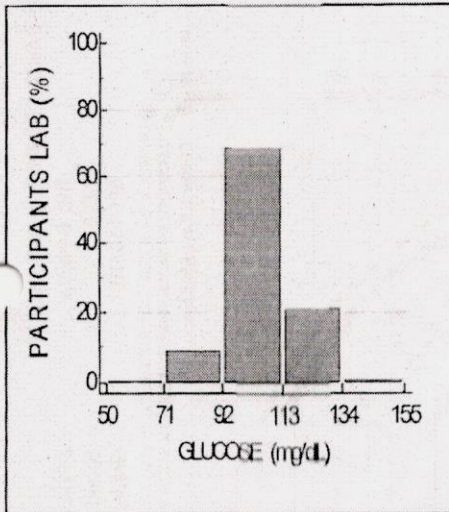


## BIO-CHEMISTRY

### GRAPHICAL REPORT

Cycle - 11/2022  
Round-9

Date:24/09/2022



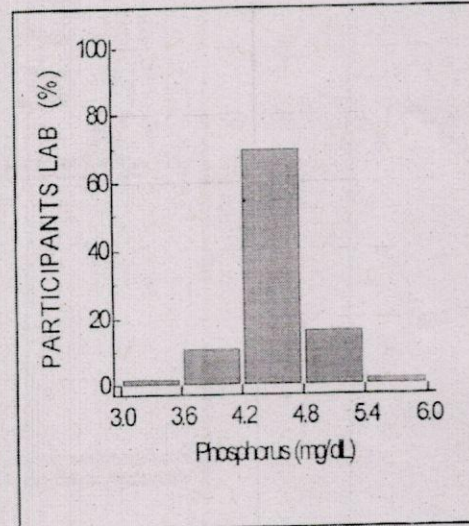
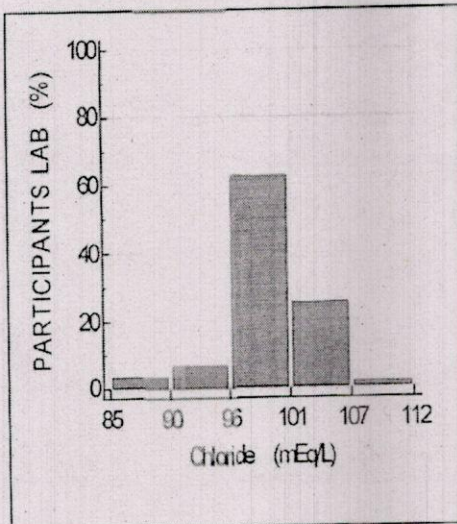
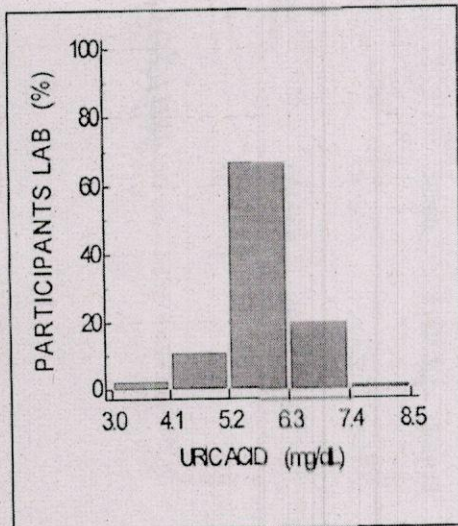
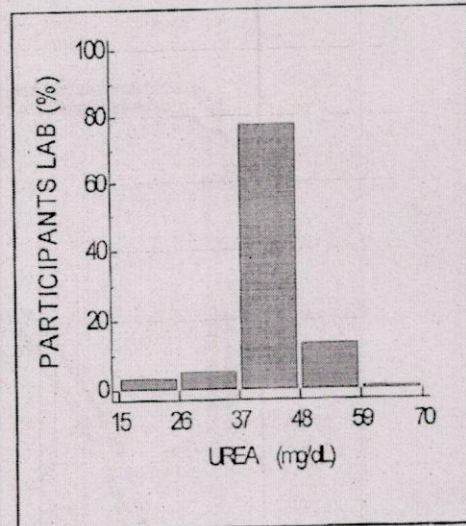
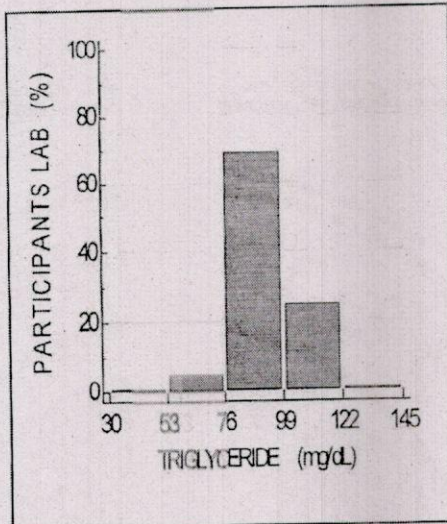
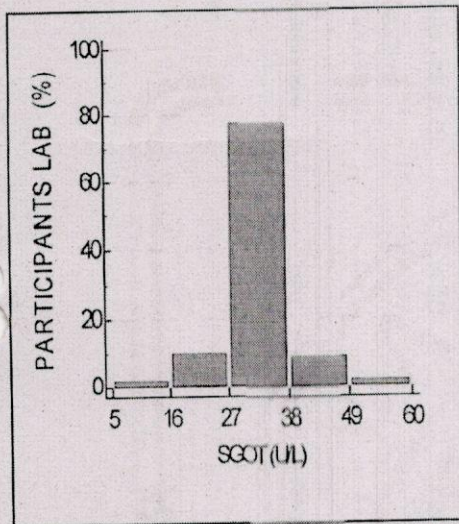


BIO-CHEMISTRY

GRAPHICAL REPORT

Cycle- 11/2022  
Round-9

Date:24/09/2022





# RML – Quality Assurance Program (RML – QAP)

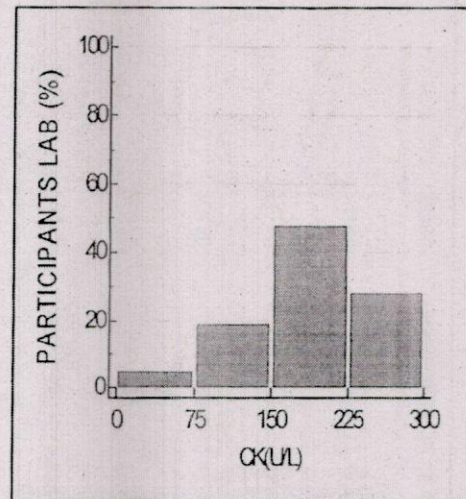
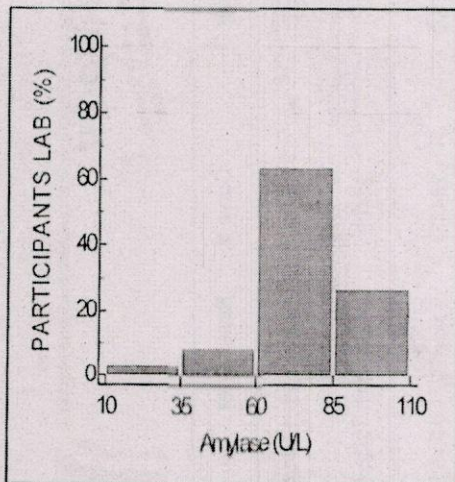
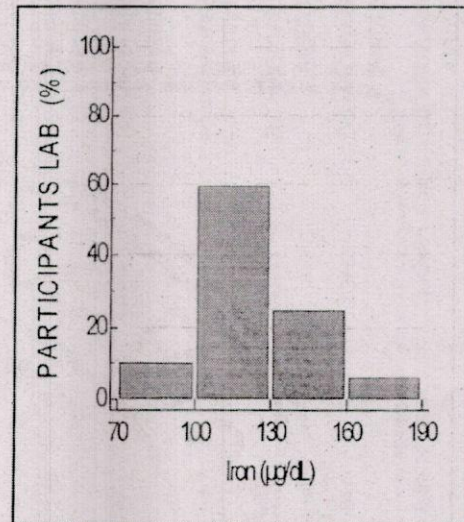
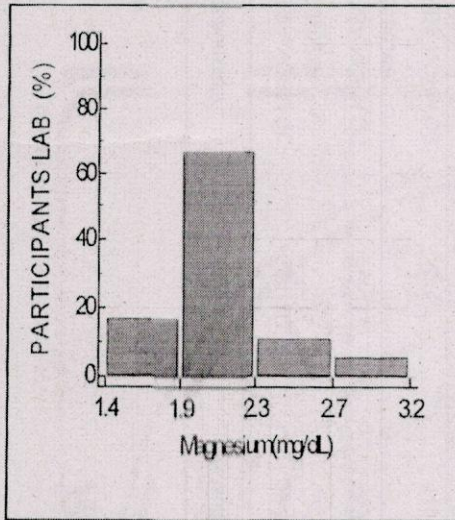


## BIO-CHEMISTRY

### GRAPHICAL REPORT

Cycle - 11/2022  
Round-9

Date:24/09/2022



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Doc No: ASS / FR / 02 / R 00 / Dt.: 01.07.2012

RML  
Research Foundation

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## Biochemistry

### ALL PARTICIPANTS COMPLETE DATA REPORT

Cycle - 11/2022

Round No -9

Date: 24/09/2022

**Note:-** This report is only for information about the participants performance in the particular round

Parameters	Total No. of Participants	No. of Responses	No of Participant Excluded from Group Mean	No. of Participants SDI b/w 0.0 - 2	No. of Participants SDI b/w 2.1 - 2.9	No. of Participants SDI >3
Albumin	282	240	7	215	11	14
Alkaline Phosphatase	282	229	2	204	17	8
Bilirubin Total	282	241	3	219	12	10
Calcium(Total)	282	212	11	183	14	15
Cholesterol (Total)	282	235	2	223	5	7
Creatinine	282	244	3	223	12	9
Glucose	282	244	5	226	8	10
HDL	282	225	2	216	5	4
Potassium	282	202	7	181	7	14
Protien (Total)	282	237	15	196	16	25
Sodium	282	199	9	177	6	16
SGPT/ALT	282	240	2	221	7	12
SGOT/AST	282	240	2	214	12	14
Triglyceride	282	237	4	214	12	11
Urea	282	242	5	212	10	20
Uric Acid	282	241	5	223	8	10

\*\*End of Report\*\*

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Doc. No.: ASS / FR / 01 / R 00 / DL.: 01.07.2012



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Instrument :- Erba  
EM 200

### Result Reprint

Report Type : Patients

Sr #	Sample ID	Test	Result Unit	Flag	Curve #	Result Date
1	RML EQAS ROUND 9	SGPTD	28.0 U/L		69082	07-Sep-2022 14:31:39
2	RML EQAS ROUND 9	SGOTD	28.4 U/L		69083	07-Sep-2022 14:31:57
3	RML EQAS ROUND 9	ALPU	210 U/L	H	69084	07-Sep-2022 14:32:15
4	RML EQAS ROUND 9	GGT	54.1 U/L		69085	07-Sep-2022 14:32:33
5	RML EQAS ROUND 9	BIDD	0.90 mg/dl	H	69086	07-Sep-2022 14:32:51
6	RML EQAS ROUND 9	BIT	1.56 mg/dl		69087	07-Sep-2022 14:33:09
7	RML EQAS ROUND 9	UREA	43.7 mg/dl		69088	07-Sep-2022 14:33:27
8	RML EQAS ROUND 9	CRENZ	1.58 mg/dl	H	69089	07-Sep-2022 14:33:45
9	RML EQAS ROUND 9	GLU	102.2 mg/dl	H	69090	07-Sep-2022 14:34:03
10	RML EQAS ROUND 9	TRIG	97.4 mg/dl		69091	07-Sep-2022 14:34:21
11	RML EQAS ROUND 9	CHOL	145 mg/dl		69092	07-Sep-2022 14:34:39
12	RML EQAS ROUND 9	HDLC	44.3 mg/dl		69093	07-Sep-2022 14:35:15
13	RML EQAS ROUND 9	UA	6.6 mg/dl		69094	07-Sep-2022 14:35:34
14	RML EQAS ROUND 9	CA	9.2 mg/dl		69095	07-Sep-2022 14:35:52
15	RML EQAS ROUND 9	ALBD	4.05 g/dl		69096	07-Sep-2022 14:36:10
16	RML EQAS ROUND 9	PRO	5.89 g/dl	L	69097	07-Sep-2022 14:36:28

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**DONE BY**

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**QUALITY MANAGER**



CONTROLLED COPY



**EXCELLAS CLINICS**

External Quality Assurance Program Evaluation Form

Discipline: **Biochemistry**

Date	Lab code : 2539	Test / Parameters	EQAS : RIQAS-RML		ROUND NO: 08		MONTH: July-2022	
			Sample Details	Date of run	Report Received on	Findings / Zscore		Corrective Action
17/08/2022		ABUMIN ALAKALINE PHOSPHATASE ALT (SGPT) AMYLASE ASTL (SGOT) BILIRUBIN DIRECT BILIRUBIN TOTAL CALCIUM CHLORIDE CHOLESTEROL CREATININE GGT GLUCOSE LDL CHOLESTEROL LIPASE PHOSPHORUS POTASSIUM TOTAL PROTEIN SODIUM TRIGLYCERIDE UREA CALCIUM IONISED URIC ACID	Serum	05/08/2022	11/09/2022	All parameters are within 2.0 SDI (zscore) Expect Total protein	Refer CAPA	Result Satisfactory

FORM NAME : EQAS EVALUATION FORM-BIOCHEMISTRY AND IMMUNOASSAY

FORM NO: 01

ISSUE NO: 01

AMIMEN NO: 00

ISSUE DATE: 01/06/2022

AMMEND DATE : 00

ISSUE BY : QM

APPROVED BY: LD

M/EQAS-EVAL-BIO/QM/TP/01

done BY

REVIEWED BY

LAB DIRECTOR





# RML – Quality Assurance Program (RML – QAP)



## BIO-CHEMISTRY-01

### ALL METHOD REPORT

Lab Code: 2539

Cycle - 11/2022

Round No - 8

Date: 7/09/2022

Parameters	Units	No.of. Parti- cipants	Group Mean	Standard deviation (SD)	Uncertai- nty of Assign Values	Range (± 2 SD)	Your Value	Standard Deviation Index (SDI)
Albumin	g/dL	221	2.9	0.2	0.02	2.5-3.3	3.0	0.5
Alkaline Phosphatase	U/L	213	322.5	74.1	6.35	174.3-470.7	354	0.4
Bilirubin Total	mg/dL	221	5.0	0.5	0.04	3.9-6.0	5.6	1.2
Calcium(Total)	mg/dL	193	12.3	0.9	0.08	10.4-14.1	13.4	1.2
Cholesterol (Total)	mg/dL	216	271.4	16.0	1.36	239.4-303.4	270	-0.1
Creatinine	mg/dL	225	4.2	0.4	0.03	3.4-5.0	4.0	-0.5
Glucose	mg/dL	226	261.5	16.9	1.41	227.8-295.3	273	0.7
HDL	mg/dL	206	87.8	31.8	2.77	24.3-151.4	57.9	-0.9
Potassium	mEq/L	184	5.8	0.3	0.03	5.2-6.4	.	.
Protein (Total)	g/dl	217	4.6	0.4	0.03	3.8-5.5	5.5	2.3
Sodium	mEq/L	184	154.8	5.2	0.48	144.3-165.3	.	.
SGPT/ALT	U/L	221	122.9	12.2	1.03	98.4-147.6	127	0.3
SGOT/AST	U/L	221	130.4	13.3	1.12	103.9-156.9	133	0.2
Triglyceride	mg/dL	216	251.8	15.2	1.29	221.4-282.1	253	0.1
Urea	mg/dL	224	114.7	11.1	0.93	92.6-136.9	111	-0.3
Uric Acid	mg/dl	221	9.2	0.8	0.07	7.5-10.8	10.2	1.3

Re-run  
1-2

#### Interpretation of SDI:

SDI Value(+/-)	0 - 0.5	0.6 - 0.9	1.0 - 2.0	2.1 - 2.9	≥ 3
Interpretation	Excellent Performance	Good Performance	Acceptable Performance	Marginal Performance Need Improvement	Unacceptable Performance Needs Urgent action

Legends	(*) Excluded From Group	{ } Not Reported	(#) Late Result	(S) Reported in
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Chief Coordinator

Dr. Sanjay Mehrotra

Checked By:

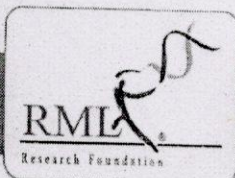
Prepared by: SM

Doc. No.: ASS/FR/03/R01/Dt.: 05.01.2022

Programme Director

Dr. Bandana Mehrotra

Page 1 of 7



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# RML – Quality Assurance Program (RML – QAP)



## BIO-CHEMISTRY

### METHOD WISE REPORT

Cycle - 11/2022

Round No - 8

Date: 07/09/2022

Lab Code: 2539

Note: Your Lab is not the part of this method group

Parameters	Units	Method Group	No.of. Participants in Group	Method Wise Group Mean	Method Wise Standard deviation (SD)	Method Wise Uncertainty of Assign Values	Method Wise Range ( $\pm 2$ SD)	Your Value	Method Wise Standard Deviation Index (SDI)
Albumin	g/dL	Bromocresol Green (BCG)	90	2.9	0.2	0.03	2.5-3.3	-	-
Alkaline Phosphatase	U/L	PNPP, AMP Buffer	60	313.6	62.7	10.12	188.2-439.1	-	-
Bilirubin Total	mg/dL	Diazonium ion	48	4.9	0.5	0.09	3.9-5.9	-	-
Calcium(Total)	mg/dL	Arsenazo iii	50	12.3	1.0	0.18	10.3-14.3	-	-
Cholesterol (Total)	mg/dL	Cholesterol Oxidase,esterase, peroxidase	58	271.3	16.5	2.71	238.3-304.4	-	-
Creatinine	mg/dL	Enzymatic	35	4.3	0.4	0.08	3.6-5.1	-	-
Glucose	mg/dL	Glucose oxidase,hydrogen peroxide(Trinder)	38	262.7	17.0	3.45	228.8-296.6	-	-
HDL	mg/dL	Direct measure-PEG	24	93.3	41.4	10.56	10.6-176.1	-	-
Potassium	mEq/L	ISE Direct	61	5.8	0.3	0.05	5.1-6.4	-	-
Protein (Total)	g/dl	Biuret, reagent blank, end point	34	4.7	0.5	0.11	3.6-5.7	-	-
Sodium	mEq/L	ISE Direct	62	154.1	4.7	0.75	144.7-163.6	-	-
SGPT/ALT	U/L	UV without P5P	33	123.3	10.7	2.33	101.9-144.7	-	-
SGOT/AST	U/L	UV without P5P	33	124.1	9.5	2.07	105.2-143.0	-	-
Triglyceride	mg/dL	Enzymatic, end point	37	252.5	13.8	2.84	224.9-280.2	-	-
Urea	mg/dL	Urease, UV	44	115.0	10.3	1.94	94.3-135.6	-	-
Uric Acid	mg/dl	Uricase, Colorimetric	58	9.1	0.8	0.13	7.5-10.7	-	-

#### Interpretation of SDI:

SDI Value(+/-)	0 - 0.5	0.6 - 0.9	1.0 - 2.0	2.1 - 2.9	$\geq 3$
Interpretation	Excellent Performance	Good Performance	Acceptable Performance	Marginal Performance Need Improvement	Unacceptable Performance Needs Urgent action

Legends	(*) Excluded From Group Mean	(.) Not Reported	(#) Late Result Submission	(S) Reported in other Unit
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Chief Coordinator

Dr. Sanjay Mehrotra

Checked By

Prepared by: SM

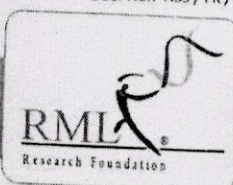
Programme Director

Dr. Bandana Mehrotra

Page 2 of 7



Doc. No.: ASS/FR/03 B/R 01 / Dt.: 05.01.2022



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# RML – Quality Assurance Program (RML – QAP)

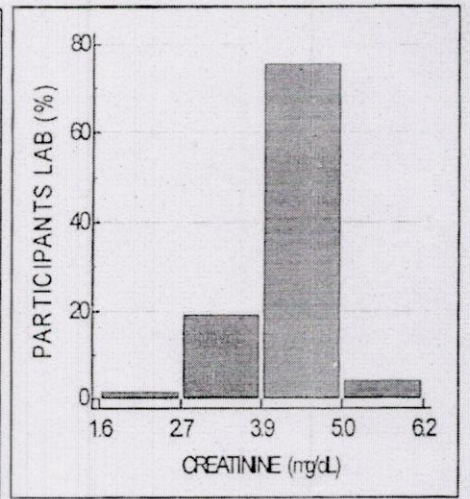
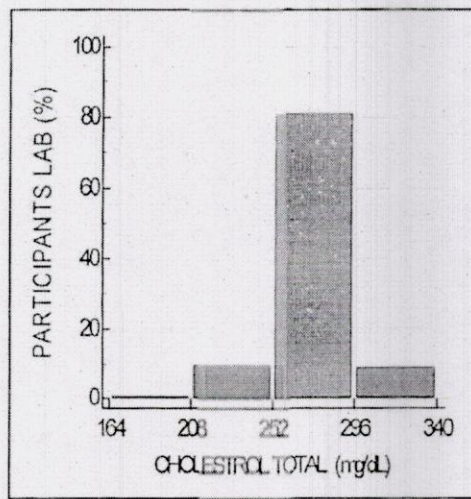
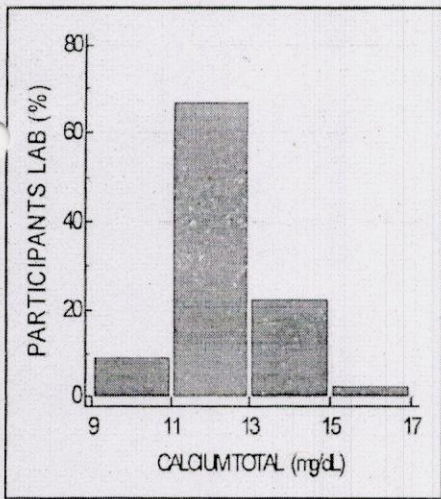
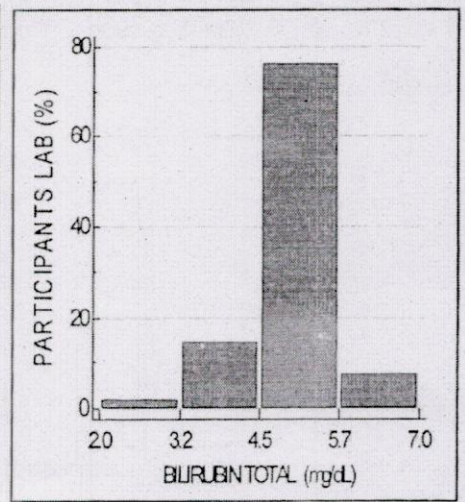
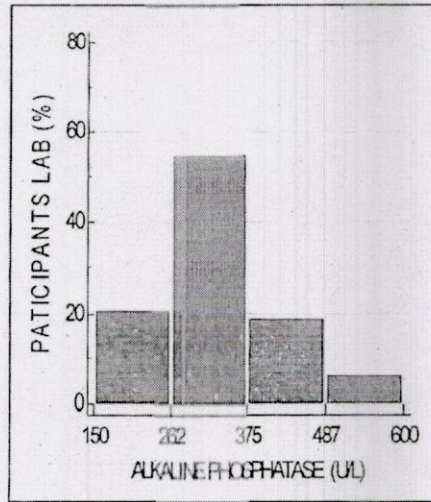
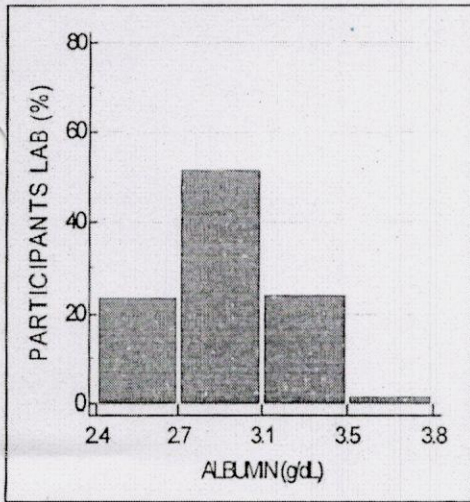


## BIO-CHEMISTRY

### GRAPHICAL REPORT

Cycle - 11/2022  
Round-8

Date:07/09/2022



Page 3 of 7



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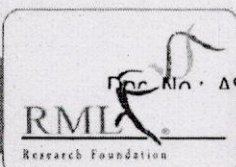
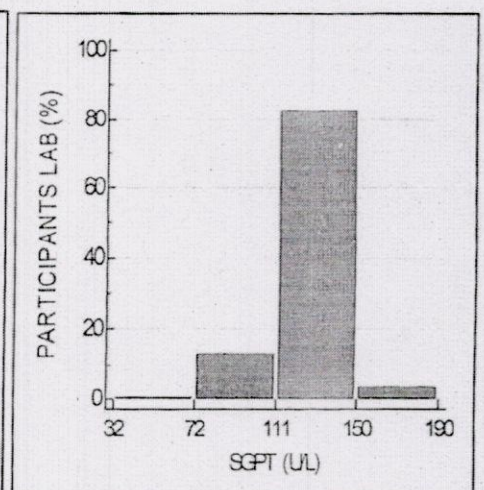
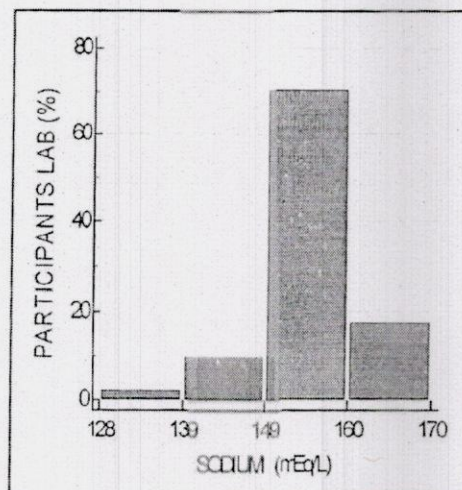
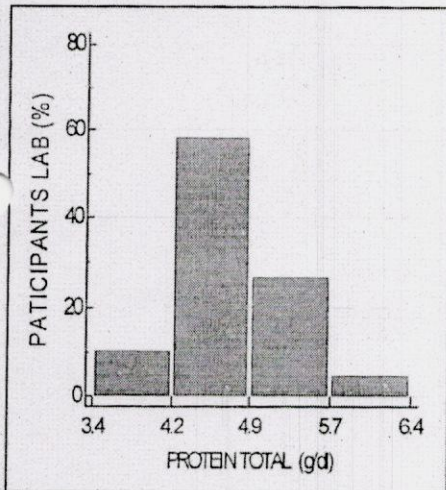
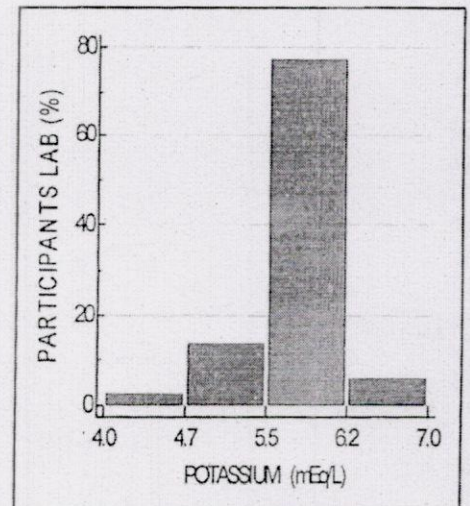
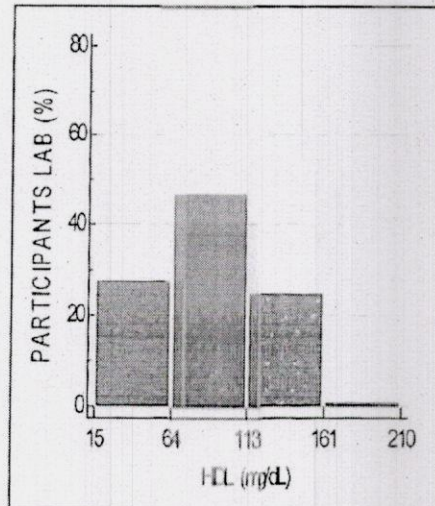
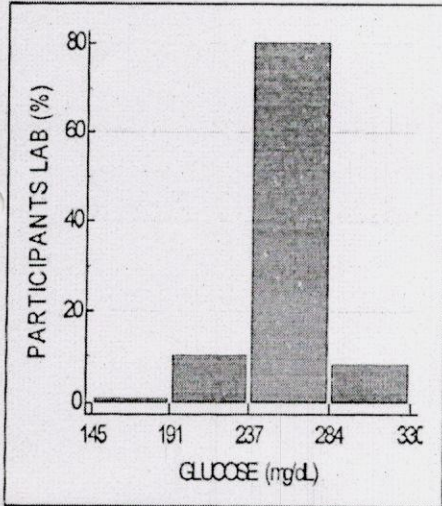
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BIO-CHEMISTRY  
GRAPHICAL REPORT

Cycle - 11/2022  
Round-8

Date:07/09/2022

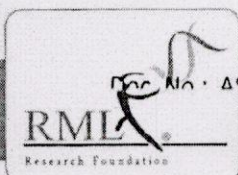
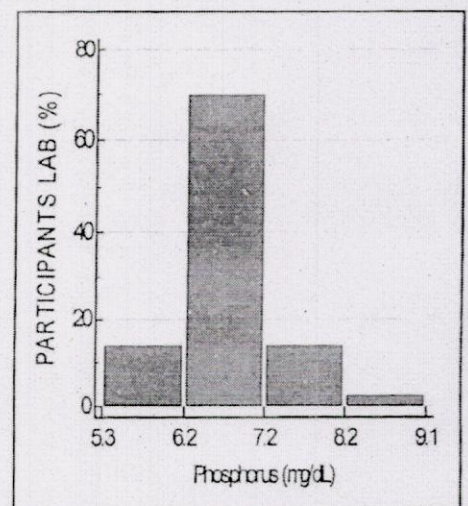
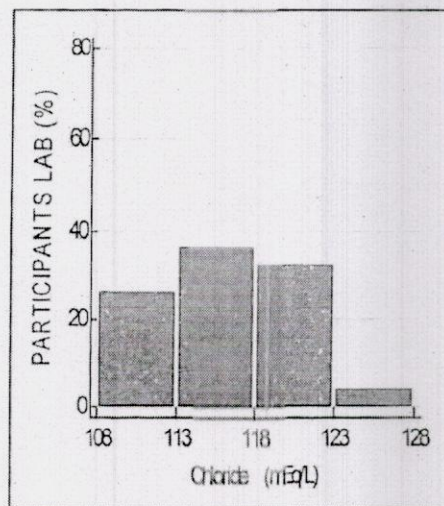
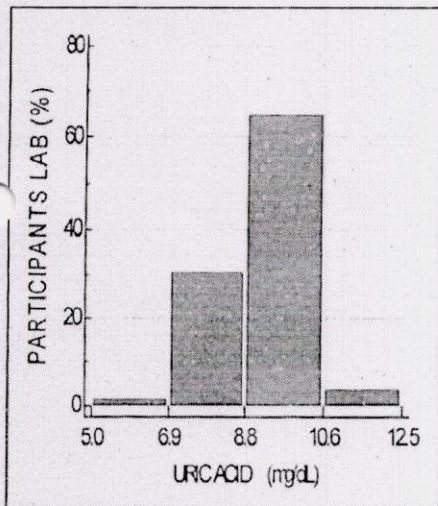
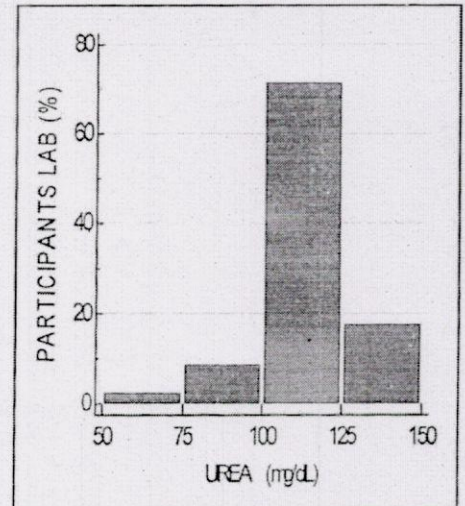
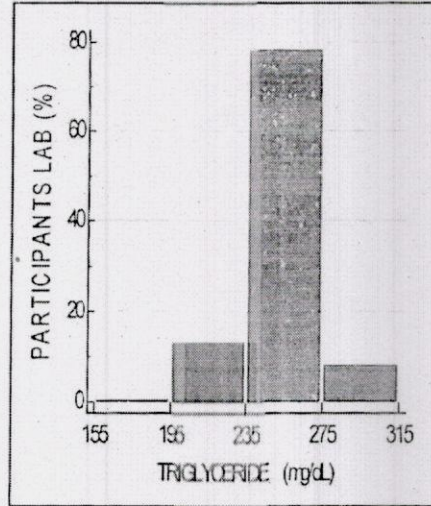
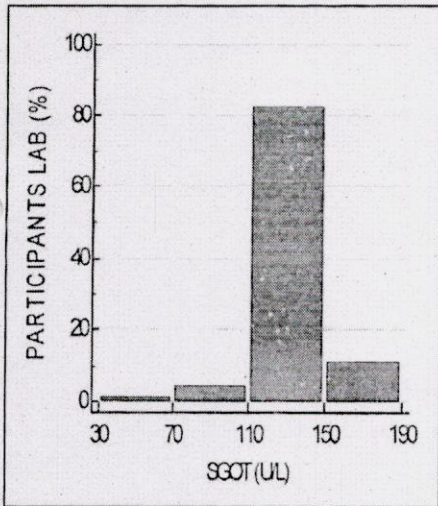




**BIO-CHEMISTRY**  
**GRAPHICAL REPORT**

Cycle - 11/2022  
Round-8

Date:07/09/2022





# RML – Quality Assurance Program (RML – QAP)

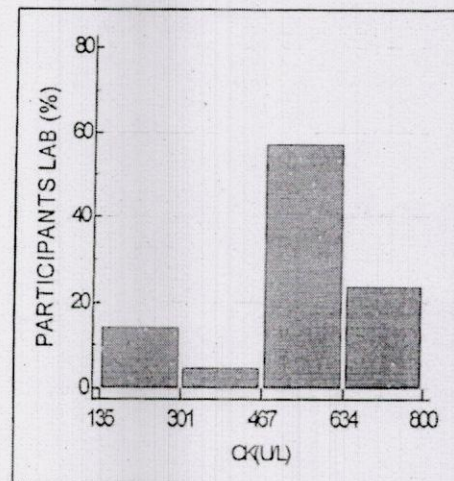
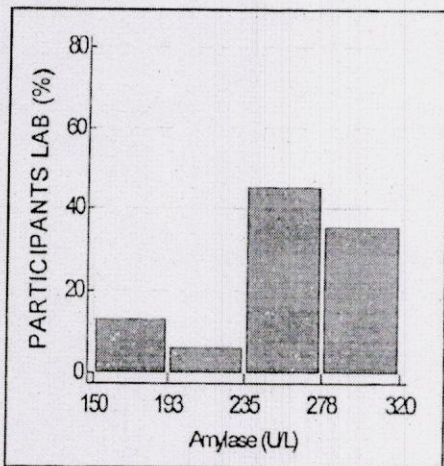
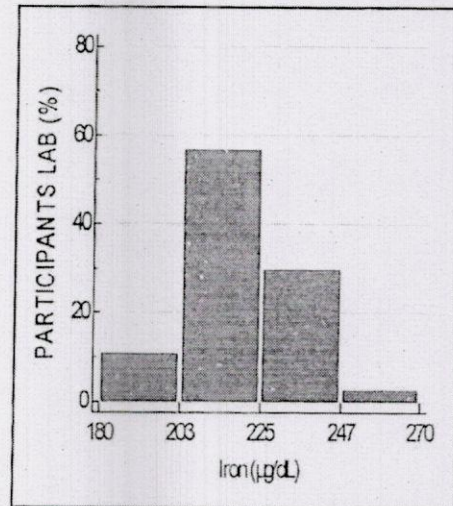
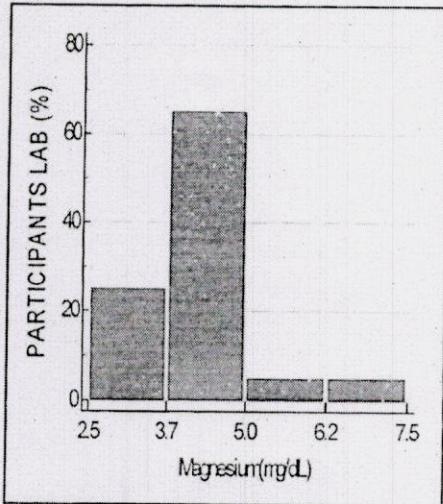


## BIO-CHEMISTRY

### GRAPHICAL REPORT

Cycle - 11/2022  
Round-8

Date:07/09/2022





## Biochemistry

### ALL PARTICIPANTS COMPLETE DATA REPORT

Cycle - 11/2022

Round No -8

Date: 07/09/2022

*Note:-* This report is only for information about the participants performance in the particular round

Parameters	Total No. of Participants	No. of Responses	No of Participant Excluded from Group Mean	No. of Participants SDI b/w 0.0 - 2	No. of Participants SDI b/w 2.1 - 2.9	No. of Participants SDI >3
Albumin	259	221	9	199	9	13
Alkaline Phosphatase	259	213	4	193	13	7
Bilirubin Total	259	221	4	201	7	13
Calcium(Total)	259	193	11	163	9	21
Cholesterol (Total)	259	216	11	191	9	16
Creatinine	259	225	2	199	12	14
Glucose	259	226	7	199	13	14
HDL	259	206	4	198	2	6
Potassium	259	184	4	163	4	17
Protien (Total)	259	217	9	191	11	15
Sodium	259	184	4	168	6	10
SGPT/ALT	259	221	6	196	11	14
SGOT/AST	259	221	6	193	13	15
Triglyceride	259	216	7	184	17	15
Urea	259	224	6	197	9	18
Uric Acid	259	221	8	200	6	15

**\*\*End of Report\*\***

Page 7 of 7

Doc. No.: ASS/FR/01/R00/Dt.:01.07.2012



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Result Reprint

Report Type :Patients

Sr #	Sample ID	Test	Result	Unit	Flag	Curve #	Result Date
1	RML QAP ROUND 8	SGPTD	127.3	U/L	H	62264	05-Aug-2022 18:14:03
2	RML QAP ROUND 8	SGOTD	133.5	U/L	H	62265	05-Aug-2022 18:14:21
3	RML QAP ROUND 8	ALPU	354	U/L	H	62266	05-Aug-2022 18:14:39
4	RML QAP ROUND 8	GGT	145.5	U/L	H	62267	05-Aug-2022 18:14:57
5	RML QAP ROUND 8	BIDD	1.58	mg/dl	H	62268	05-Aug-2022 18:15:15
6	RML QAP ROUND 8	BIT	5.65	mg/dl	H	62269	05-Aug-2022 18:15:33
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8	RML QAP ROUND 8	CRENZ	4.09	mg/dl	H	62271	05-Aug-2022 18:16:09
9	RML QAP ROUND 8	GLU	273.0	mg/dl	H	62272	05-Aug-2022 18:16:27
10	RML QAP ROUND 8	TRIG	253.4	mg/dl	H	62273	05-Aug-2022 18:16:45
11	RML QAP ROUND 8	CHOL	270	mg/dl	H	62274	05-Aug-2022 18:17:03
12	RML QAP ROUND 8	HDLC	57.9	mg/dl		62275	05-Aug-2022 18:17:39
13	RML QAP ROUND 8	UA	10.2	mg/dl	H	62276	05-Aug-2022 18:17:57
14	RML QAP ROUND 8	CA	13.4	mg/dl	H	62277	05-Aug-2022 18:18:15
15	RML QAP ROUND 8	ALBD	3.00	g/dl	L	62278	05-Aug-2022 18:18:33
16	RML QAP ROUND 8	PRO	5.56	g/dl	L	62279	05-Aug-2022 18:18:51





CA - 1 Rerun BBAS Sample.

Result Reprint

Report Type :Patients

15-Sep-2022

Sr #	Sample ID	Test	Result Unit	Flag	Curve #	Result Date
1	RML ROUND 8	PRO	5.18 g/dl	L	70225	15-Sep-2022 15:30:10

Print Date

20-Sep-2022



Date- 11/09/22

- Remark** :
- i) All parameters are within range ; i.e ; (Z-score  $> 2.0$ ) ; except **protein**.
  - ii) for corrective action refer ECAS Report same as CAPA - 0
  - iii) Result satisfactory.

### corrective Action Report.

**CA** :- Recalculate Z-score for **protein** parameter with ERBA EM series.

$$\text{Z-score} = \frac{\text{obtained value} - \text{Mean of comp.}}{\text{SDPA}}$$

$$= \frac{5.1 - 4.6}{0.4}$$

$$= 1.2$$

∴ Result satisfactory (i.e. under 2.0 Z-score)

*Gul*  
**DONE BY**

*Pratik*  
**REVIEWED BY**





CORECTIVE ACTION AND PREVENTIVE ACTION FORM

DATE: 11/09/22	CAPA NO: 1	NC NO: 1
DISCIPLINE: Biochemistry	INITIAL BY:	ISSUED BY: QUALITY MANAGER
PARTICULAR: EQAS	SIGN :	SIGN

DESCRIPTION OF NON-CONFORMITY:

In EQAS (RML-QAP) Biochemistry  
SN - (Round 8) Having outlier  
protein (2.3)

Root Cause Analysis :

1. Specimen Handling: - (For PT / EQAS Programme)

- Check Condition of Material when received ---Expiry and Temperature? Yes  No
- Check Reconstitution Water quality? Yes  No
- Check Personnel Handling and Analyzing - Satisfactory? Yes  No
- Were your results graded in the appropriate peer group based on the method? Yes  No
- Were PT specimen reconstituted as the kit instruction? Yes  No
- Were PT specimen stored as indicated.? Yes  No

2. Clerical Errors or Transcription Error: -

- ❖ Were the results transcribed onto the worksheets correctly? Yes  No
- ❖ Were the results recorded on the correct worksheet? Yes  No
- ❖ Was the correct instrument/reagent/kit selected? Yes  No
- ❖ Were the results recorded in the correct units? Yes  No
- ❖ Were the results on your evaluation the same as the results you reported? Yes  No

3. Internal Quality Control -

- ❖ Were controls in range on the date the proficiency samples were tested? Yes  No
- ❖ Is there any indication of trending or shifting of the control results? Yes  No

4. Calibration

- ❖ Were there any problems with the most recent calibration? Yes  No
- ❖ When was the last calibration performed?
- ❖ How often is a calibration performed?

5. Instrument

- ❖ Were instrument problems noted the day the samples were tested? Yes  No
- ❖ Has there been any recent maintenance on the analyser? Yes  No
- ❖ Have you contacted your analyser manufacturer for assistance? Yes  No

FORM NO: 01	FORM NAME: CAPA	FORM NO: FM/CAPA/04
ISSUE NO: 01	ISSUE DATE: 01/06/2022	ISSUE BY: QM <i>[Signature]</i>
AMEND NO: 00	AMEND DATE: 00	APPROVED BY: LD <i>[Signature]</i>



**CORECTIVE ACTION AND PREVENTIVE ACTION FORM**

**6. Reagents**

- ❖ Were the reagents stored properly? Yes  No
- ❖ Were the reagents expired or was the open vial stability exceeded? Yes  No
- ❖ Have there been any changes in reagent manufacturer or formulation? Yes  No

**7. Specimen / Sample Handling: - (For Patient Sample)**

- ❖ Were specimens received in an acceptable condition? Yes  No
- ❖ Were specimens stored according to the instructions on the result forms? **NA** Yes  No
- ❖ Were the samples haemolyzed (Palin tube) ? Yes  No
- ❖ Were samples tested within the time allowed for sample stability? Yes  No

**8. Regarding Patient**

- ❖ Any major complaint received from Patient? Yes  No
- ❖ Complaint related to reception behavior, technician, or results? **NA** Yes  No
- ❖ Get back to the patient within 24 hrs. for the answer? Yes  No

**9. Culture**

- ❖ Was the media stored according to manufacturer's instructions? Yes  No
- ❖ Was the media expired? Yes  No
- ❖ Was the appropriate QC performed on the media? **NA** Yes  No
- ❖ Was the incubator temperature/gas/humidity within acceptable limits? Yes  No
- ❖ If applicable, have you contacted your kit manufacturer for assistance? Yes  No
- ❖ Notes: \_\_\_\_\_

**10. Could patient results have been affected? If so, explain course of action:**

\_\_\_\_\_

**Corrective Action Taken:**

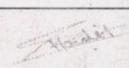
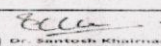
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ISSUE NO: 01	ISSUE DATE: 01/06/2022	ISSUE BY : QM <i>[Signature]</i>
AMEND NO: 00	AMEND DATE : 00	APPROVED BY: LD <i>[Signature]</i> <small>LD, CHAIRMAN, REGULATORY AND COMPLIANCE</small>

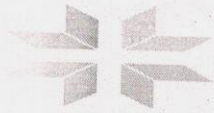


CORRECTIVE ACTION AND PREVENTIVE ACTION FORM

Preventive Action Taken:

NA .

FORM NO: 01	FORM NAME:CAPA	FORM NO:FM/CAPA/04
ISSUE NO: 01	ISSUE DATE: 01/06/2022	ISSUE BY :QM 
AMEND NO:00	AMEND DATE :00	APPROVED BY: LD  <small>Dr. Subhash Chandra Mishra No. 12, Mahatma Road</small>



**CORECTIVE ACTION AND PREVENTIVE ACTION FORM**

❖ **Corrective Action for PT Failure?**

CA 1 - Re-run Recalled EQAS sample of previous ---Results Satisfactory? Yes  No  Yes  No

CA 2 - EQAS -Z SCORE Results Satisfactory? Yes  No  Yes  No

- Report attached? Yes  No

- Z SCORE for Corrected Parameter:

Recalculated Z Score :-

Protein = 1.2

CA 3 - Calibration done for outlier parameter? Yes  No

- Re-run Recalled EQAS sample of previous ---Results Satisfactory? Yes  No

- Z SCORE Results Satisfactory? Yes  No

NA

CA 4 - Random Patient sample for the analyte outlier for ILC? Yes  No

- ILC Results Satisfactory? NA Yes  No

- Report Attached? NA Yes  No

CA 5- comparable results if any? NA Yes  No

- Report Attached? NA Yes  No

CA 6 - If Any other -- NA

NA.

FORM NO: 01	FORM NAME:CAPA	FORM NO:FM/CAPA/04
ISSUE NO: 01	ISSUE DATE: 01/06/2022	ISSUE BY :QM <i>[Signature]</i>
AMEND NO:00	AMEND DATE :00	APPROVED BY: LD <i>[Signature]</i> DR. ANEESH KUMAR M.D. Pathologist

CONTROLLED COPY



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CORRECTIVE ACTION AND PREVENTIVE ACTION FORM

Preventive Action Report:

FORM NO: 01	FORM NAME:CAPA	FORM NO:FM/CAPA/04
ISSUE NO: 01	ISSUE DATE: 01/06/2022	ISSUE BY :QM <i>[Signature]</i>
AMEND NO:00	AMEND DATE :00	APPROVED BY: LD <i>[Signature]</i> <small>Dr. Lakshmi Reddy M.D. Pathologist</small>



CONTROLLED COPY



**EXCELLAS CLINICS**

External Quality Assurance Program Evaluation Form

Date		Test / Parameters	Sample Details	Date of run	Report Received on	Findings / Zscore	Corrective Action	MONTH: July-2022	
17/08/2022		ABUMIN ALAKALINE PHOSPHATASE ALTL (SGPT) AMYLASE ASTL (SGOT) BILIRUBIN DIRECT BILIRUBIN TOTAL CALCIUM CHLORIDE CHOLESTEROL CREATININE GGT GLUCOSE LDL CHOLESTEROL LIPASE PHOSPHORUS POTASSIUM TOTAL PROTEIN SODIUM TRIGLYCERIDE UREA CALCIUM IONISED URIC ACID	Serum	14/07/2022	09/08/2022	All parameters are within 2.0 SDI(zscore)	NA	Result Satisfactory	
FORM NO: 01		FORM NAME : EQAS EVALUATION FORM-BIOCHEMISTRY AND IMMUNOASSAY						M/EQAS-EVAL-BIO/QM/TP/01	
ISSUE NO: 01		ISSUE DATE: 01/06/2022						ISSUE BY : QM	
AMMEN NO: 00		AMMEND DATE : 00						APPROVED BY: LD	

Discipline: Biochemistry

ROUND NO: 07

Lab code : 2539

LAB DIRECTOR





# RML – Quality Assurance Program (RML – QAP)



## BIO-CHEMISTRY-01

### ALL METHOD REPORT

Lab Code: 2539

Cycle - 11/2022  
Round No - 7

Date: 01/08/2022

Parameters	Units	No.of. Participants	Group Mean	Standard deviation (SD)	Uncertainty of Assign Values	Range ( $\pm 2$ SD)	Your Value	Standard Deviation Index (SDI)
Albumin	g/dL	227	4.0	0.2	0.02	3.6-4.5	4.0	-0.1
Alkaline Phosphatase	U/L	217	181.0	37.4	3.18	106.1-255.8	200	0.5
Bilirubin Total	mg/dL	226	1.5	0.2	0.02	1.1-1.9	1.5	0.1
Calcium(Total)	mg/dL	194	8.8	0.7	0.06	7.5-10.1	9.5	1.0
Cholesterol (Total)	mg/dL	221	167.6	22.3	1.88	122.9-212.3	154	-0.6
Creatinine	mg/dL	230	1.4	0.2	0.02	1.0-1.8	1.4	0.0
Glucose	mg/dL	231	105.7	10.1	0.83	85.6-125.8	105	-0.1
HDL	mg/dL	209	56.9	16.6	1.44	23.6-90.1	40.3	-1.0
Potassium	mEq/L	187	3.9	0.2	0.02	3.5-4.3	.	.
Protein (Total)	g/dl	222	5.8	0.4	0.03	5.1-6.5	5.9	0.3
Sodium	mEq/L	188	138.1	3.8	0.35	130.5-145.8	.	.
SGPT/ALT	U/L	225	30.4	4.0	0.33	22.5-38.3	27	-0.9
SGOT/AST	U/L	226	31.3	4.4	0.37	22.5-40.1	30	-0.3
Triglyceride	mg/dL	221	91.9	9.6	0.81	72.6-111.2	100	0.8
Urea	mg/dL	229	43.6	3.9	0.32	35.9-51.4	46	0.6
Uric Acid	mg/dl	225	5.7	0.5	0.04	4.7-6.8	6.2	0.9

#### Interpretation of SDI:

SDI Value(+/-)	0 - 0.5	0.6 - 0.9	1.0 - 2.0	2.1 - 2.9	$\geq 3$
Interpretation	Excellent Performance	Good Performance	Acceptable Performance	Marginal Performance Need Improvement	Unacceptable Performance Needs Urgent action

Legends	(*) Excluded From Group	{ } Not Reported	(#)Late Result	(S)Reported in
---------	-------------------------	------------------	----------------	----------------

Chief Coordinator

Dr.Sanjay Mehrotra

Checked By:

Prepared by: SS

Doc. No.: ASS / FR / 03 / 01 / Dt.: 05.01.2022



Programme Director

Dr.Bandana Mehrotra

Page 1 of 7

## LAB DIRECTOR

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# RML - Quality Assurance Program (RML - QAP)



## BIO-CHEMISTRY

### METHOD WISE REPORT

Cycle - 11/2022

Round No - 7

Date: 01/08/2022

Lab Code: 2539

Note: Your Lab is not the part of this method group

Parameters	Units	Method Group	No.of. Participants in Group	Method Wise Group Mean	Method Wise Standard deviation (SD)	Method Wise Uncertainty of Assign Values	Method Wise Range ( $\pm 2$ SD)	Your Value	Method Wise Standard Deviation Index (SDI)
Albumin	g/dL	Bromcresal Green (BCG)	89	4.0	0.2	0.03	3.6-4.4	-	-
Alkaline Phosphatase	U/L	PNPP, AMP Buffer	58	175.4	28.2	4.63	119.0-231.8	-	-
Bilirubin Total	mg/dL	Diazonium Ion	50	1.5	0.2	0.03	1.1-1.9	-	-
Calcium(Total)	mg/dL	Arsenazo III	51	9.0	0.8	0.14	7.4-10.5	-	-
Cholesterol (Total)	mg/dL	Cholesterol Oxidase,esterase, peroxidase	58	175.1	21.2	3.47	132.8-217.4	-	-
Creatinine	mg/dL	Enzymatic	35	1.4	0.2	0.03	1.1-1.7	-	-
Glucose	mg/dL	Glucose oxidase,hydrogen peroxide(Trinder)	40	108.1	10.2	2.02	87.7-128.6	-	-
HDL	mg/dL	Direct measure-PEG	25	58.6	24.0	5.99	10.7-106.6	-	-
Potassium	mEq/L	ISE Direct	61	3.8	0.2	0.03	3.5-4.1	-	-
Protein (Total)	g/dl	Biuret, reagent blank, end point	34	5.7	0.4	0.09	4.8-6.5	-	-
Sodium	mEq/L	ISE Direct	62	137.7	4.2	0.67	129.2-146.2	-	-
SGPT/ALT	U/L	UV without P5P	34	29.9	3.9	0.83	22.2-37.6	-	-
SGOT/AST	U/L	UV without P5P	34	29.4	3.1	0.66	23.3-35.5	-	-
Triglyceride	mg/dL	Enzymatic, end point	39	91.5	7.9	1.57	75.8-107.2	-	-
Urea	mg/dL	Urease, UV	46	43.5	3.5	0.65	36.5-50.6	-	-
Uric Acid	mg/dl	Uricase, Colorimetric	60	5.7	0.5	0.09	4.6-6.7	-	-

### Interpretation of SDI:

SDI Value(+/-)	0 - 0.5	0.6 - 0.9	1.0 - 2.0	2.1 - 2.9	$\geq 3$
Interpretation	Excellent Performance	Good Performance	Acceptable Performance	Marginal Performance Need Improvement	Unacceptable Performance Needs Urgent action

Legends	(*) Excluded From Group Mean	[.] Not Reported	(#)Late Result Submission	(S)Reported in other Unit
---------	------------------------------	------------------	---------------------------	---------------------------

Chief Coordinator

Dr.Sanjay Mehrotra

Checked By: *[Signature]*

Prepared by: SS



Programme Director

Dr.Bandana Mehrotra

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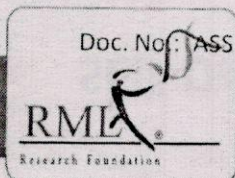
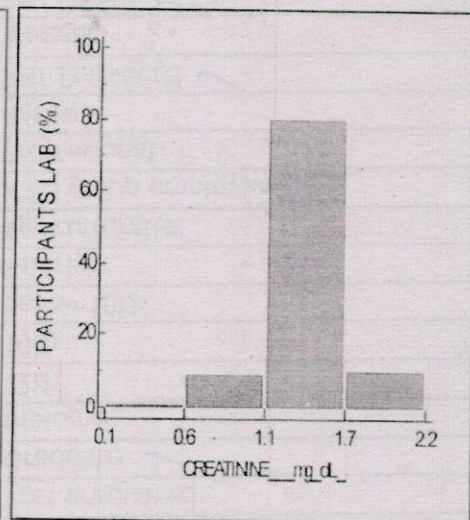
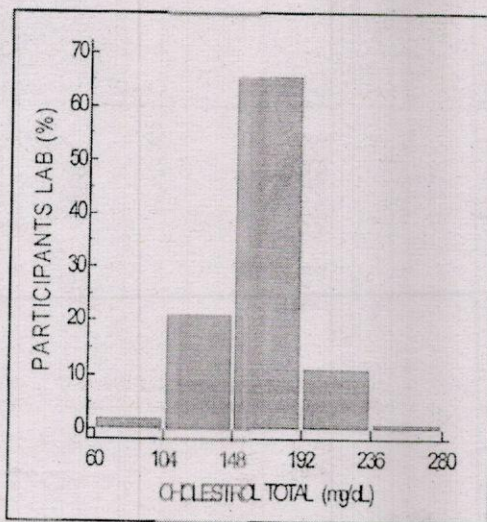
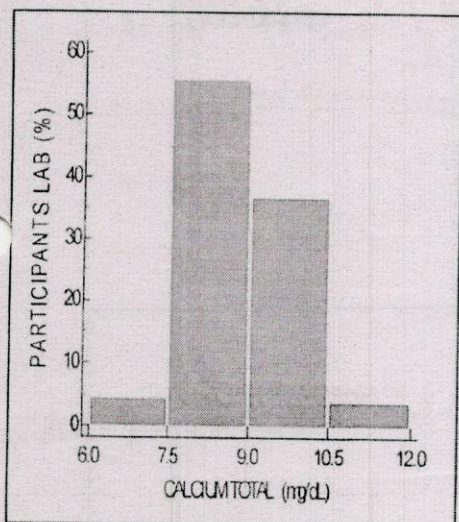
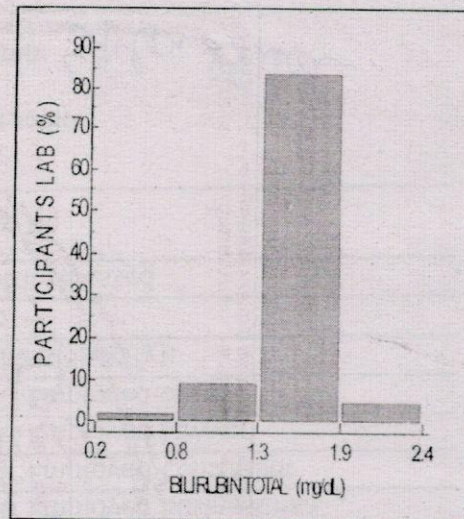
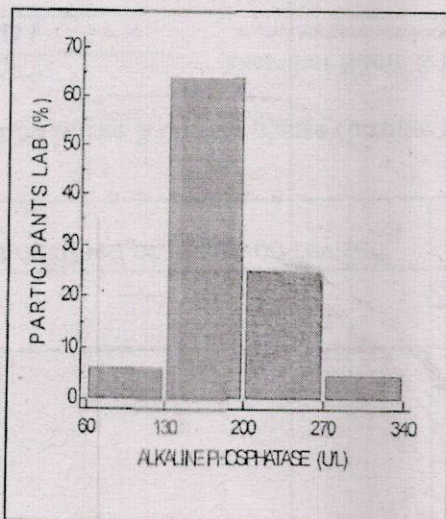
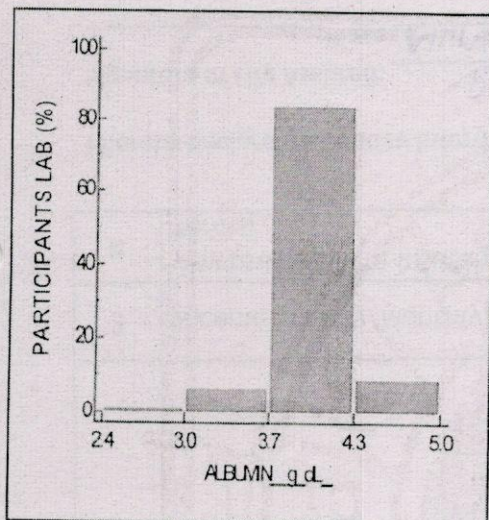


BIO-CHEMISTRY

GRAPHICAL REPORT

Cycle - 11/2022  
Round-7

Date:01/08/2022





# RML – Quality Assurance Program (RML – QAP)

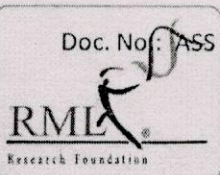
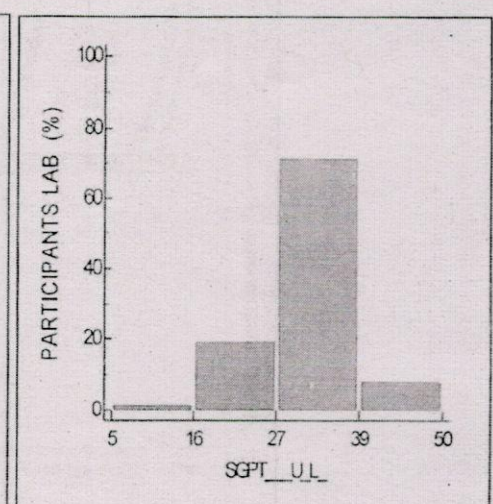
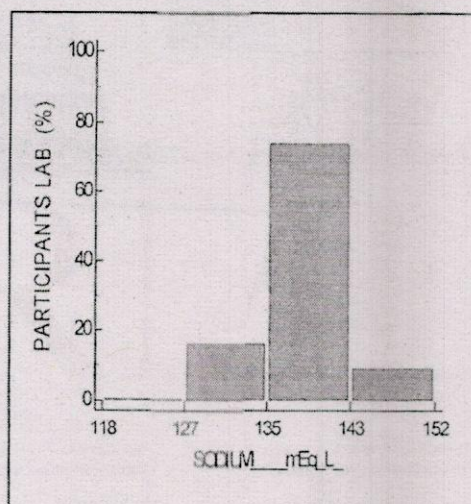
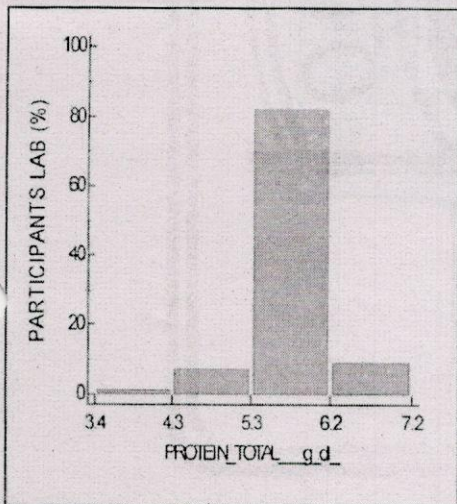
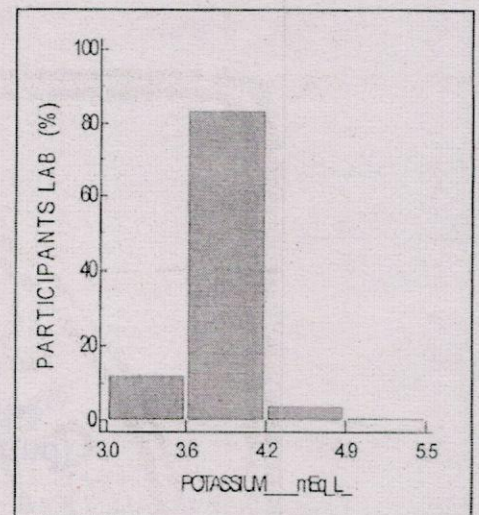
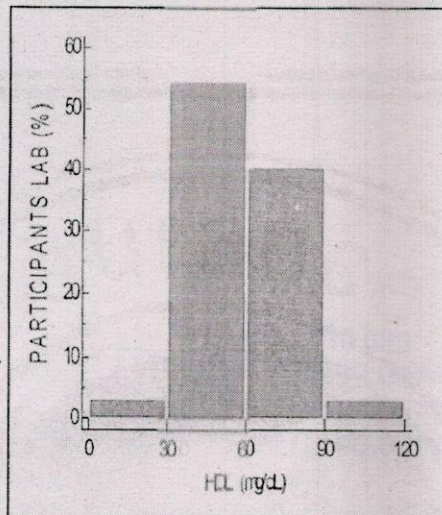
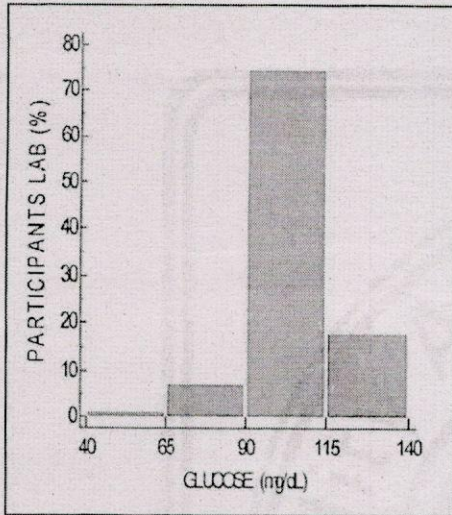


## BIO-CHEMISTRY

### GRAPHICAL REPORT

Cycle - 11/2022  
Round-7

Date:01/08/2022





# RML – Quality Assurance Program (RML – QAP)

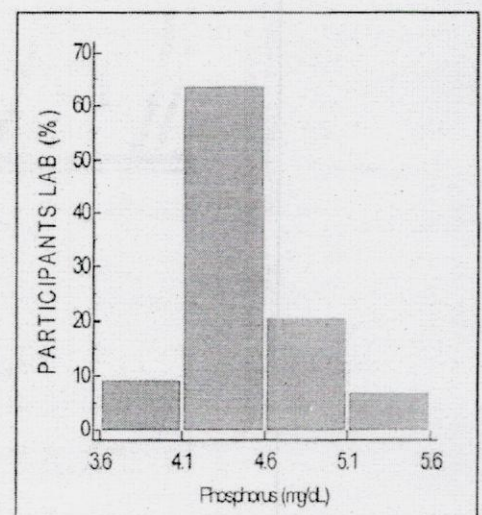
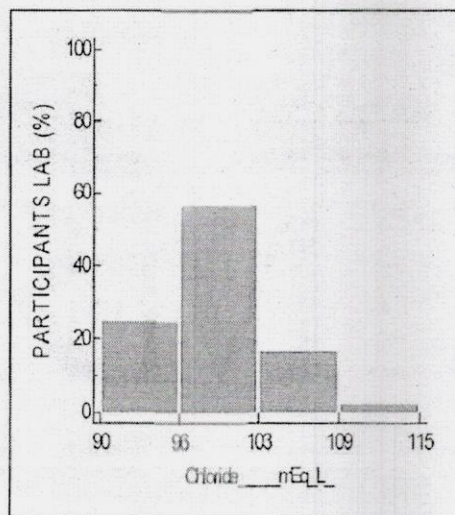
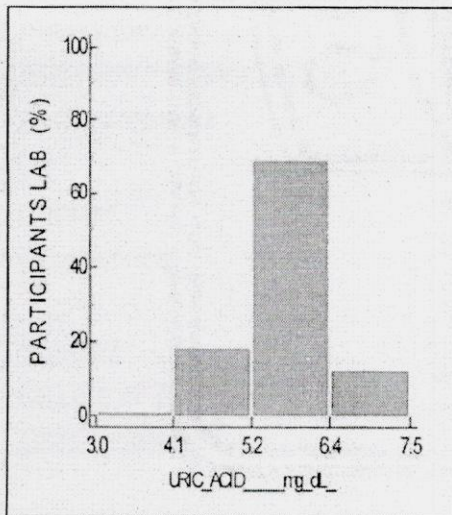
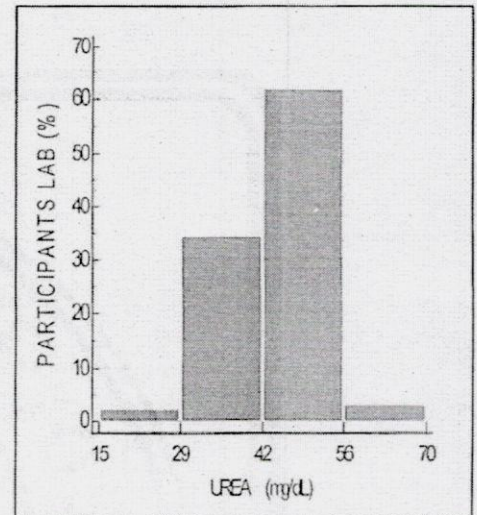
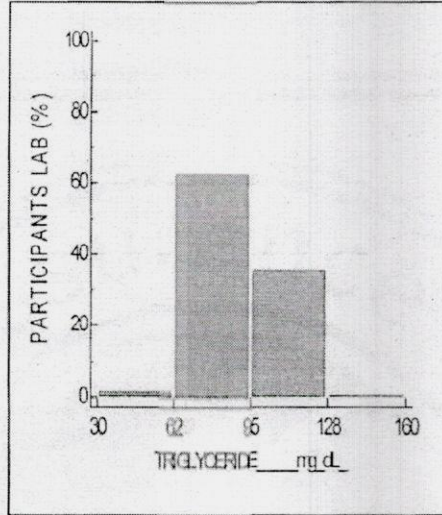
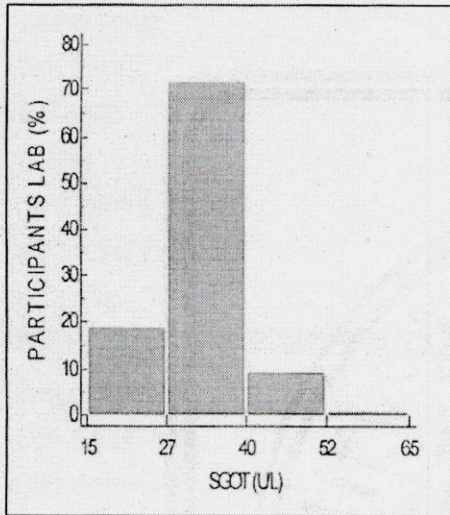


## BIO-CHEMISTRY

### GRAPHICAL REPORT

Cycle - 11/2022  
Round-7

Date:01/08/2022



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Doc. No: RASS / FR / 02 / R 00 / Dt.: 01.07.2012



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# RML – Quality Assurance Program (RML – QAP)

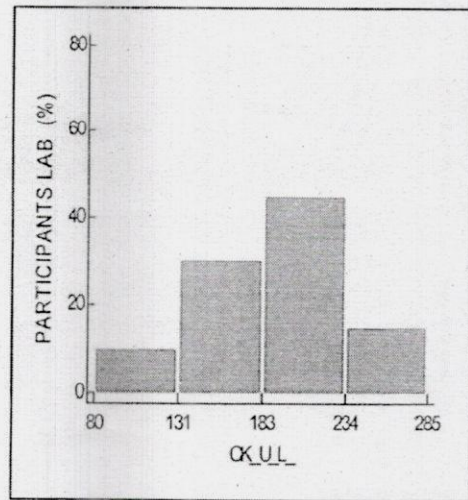
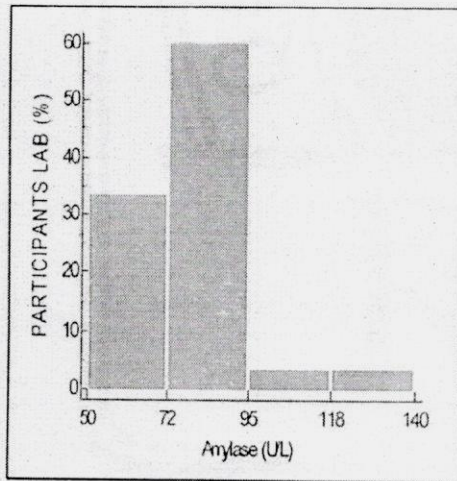
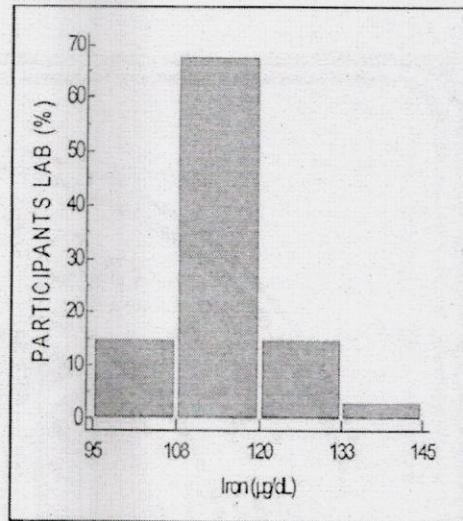
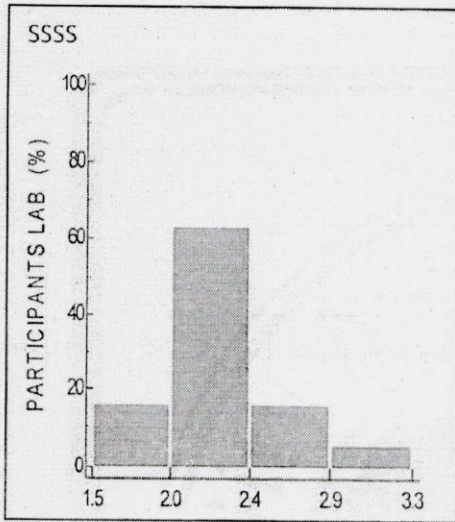


## BIO-CHEMISTRY

### GRAPHICAL REPORT

Cycle - 11/2022  
Round-7

Date:01/08/2022





## Biochemistry

### ALL PARTICIPANTS COMPLETE DATA REPORT

Cycle - 11/2022

Round No -7

Date: 01/08/2022

Note:- This report is only for information about the participants performance in the particular round

Parameters	Total No. of Participants	No. of Responses	No of Participant Excluded from Group Mean	No. of Participants SDI b/w 0.0 - 2	No. of Participants SDI b/w 2.1 - 2.9	No. of Participants SDI >3
Albumin	251	227	6	205	11	11
Alkaline Phosphatase	251	217	3	200	7	10
Bilirubin Total	251	226	2	204	10	12
Calcium(Total)	251	196	9	172	10	14
Cholesterol (Total)	251	222	1	209	6	7
Creatinine	251	230	1	205	16	9
Glucose	251	231	1	213	10	8
HDL	251	210	0	200	7	3
Potassium	251	187	5	170	8	9
Protien (Total)	251	222	7	199	9	14
Sodium	251	189	4	171	11	7
SGPT/ALT	251	225	2	196	16	13
SGOT/AST	251	226	1	201	11	14
Triglyceride	251	222	2	205	10	7
Urea	251	229	3	202	8	19
Uric Acid	251	227	10	195	15	17

\*\*End of Report\*\*

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Instrument  
Name: - GM 200

### Result Reprint

Report Type :Patients 14-Jul-2022

Sr #	Sample ID	Test	Result Unit	Flag	Curve #	Result Date
1	RML QAP-2022	SGPTD	27.7 U/L		58637	14-Jul-2022 12:15:50
2	RML QAP-2022	SGOTD	30.4 U/L		58638	14-Jul-2022 12:16:08
3	RML QAP-2022	ALPU	200 U/L	H	58639	14-Jul-2022 12:16:26
4	RML QAP-2022	GGT	49.3 U/L		58640	14-Jul-2022 12:16:44
5	RML QAP-2022	BIDD	0.88 mg/dl	H	58641	14-Jul-2022 12:17:02
6	RML QAP-2022	BIT	1.55 mg/dl		58642	14-Jul-2022 12:17:20
7	RML QAP-2022	UREA	46.4 mg/dl		58643	14-Jul-2022 12:17:38
8	RML QAP-2022	CRENZ	1.48 mg/dl	H	58644	14-Jul-2022 12:17:56
9	RML QAP-2022	GLU	105.4 mg/dl	H	58645	14-Jul-2022 12:18:15
10	RML QAP-2022	TRIG	100.0 mg/dl		58646	14-Jul-2022 12:18:33
11	RML QAP-2022	CHOL	154 mg/dl		58647	14-Jul-2022 12:18:50
12	RML QAP-2022	HDLC	40.3 mg/dl		58648	14-Jul-2022 12:19:27
13	RML QAP-2022	UA	6.2 mg/dl		58649	14-Jul-2022 12:19:45
14	RML QAP-2022	CA	9.5 mg/dl		58650	14-Jul-2022 12:20:03
15	RML QAP-2022	ALBD	4.05 g/dl		58651	14-Jul-2022 12:20:21
16	RML QAP-2022	PRO	5.92 g/dl	L	58652	14-Jul-2022 12:20:39



LAB DIRECTOR