

Laboratory	New Civil Hospital Surat Laboratory Services, Majura Gate, Surat, Gujarat		
Accreditation Standard	ISO 15189: 2012		
Field	Medical Testing	Issue Date	31.10.2016
Certificate Number	M-0450	Valid Until	30.10.2018
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S.No.	Product / Material of Test	Specific Test Performed	Test Method	Range of Testing / Limits of Detection	CV%
I.	<u>CLINICAL BIOCHEMISTRY</u>				
1.	PLASMA	Glucose	GOD-POD End point	10-500 mg/dl	2.5
2.	SERUM	Creatinine	Jaffe Two Point	0.1-20 mg/dl	7.8
3.	SERUM	Urea	Urease GLDH	5-250 mg/dl	6.1
4.	SERUM	Bilirubin Direct	Diazo Reaction	0.1-30 mg/dl	9.4
5.	SERUM	Bilirubin Total	Diazo Reaction	0.1-30 mg/dl	4.6
6.	SERUM	Bilirubin Indirect	Calculation	NA	NA
7.	SERUM	Triglycerides	Lipase GHO-POD	10-1000 mg/dl	3.8
8.	SERUM	Albumin	BCG	0.1-4.7 gm/dl	4.0
9.	SERUM	Cholesterol Total	CHOD-POD	10-730 mg/dl	1.9
10.	SERUM	Alkaline Phosphatase	PnPP with AMP buffer	20-2000 IU/L	5.9
11.	SERUM	Total Protein	Biuret	1.0-15 gm/dl	3.1
12.	SERUM	Calcium	Arsenazo III	1-20 mg/dl	4.5
13.	SERUM	Uric Acid	Uricase POD	0.5-20 mg/dl	4.9
14.	SERUM	Amylase	CNPG	10-1500 mg/dl	5.5

Devaki Devi Mandava
Convenor

Dr. Vandana Jain
Program Manager

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15.	SERUM	HDL-Cholesterol	Dextran-sulphate-Mg ²⁺ Precipitation	10-100 mg/dl	9.1
16.	SERUM	LDL-Cholesterol	Calculation	NA	NA
17.	SERUM	VLDL-Cholesterol	Calculation	NA	NA
18.	SERUM	Na ⁺	ISE Direct	40-160 mmol/l	1.3
19.	SERUM	K ⁺	ISE Direct	0.5-6.0 mmol/l	2.2
20.	SERUM	ALT	L-Alanine LDH UV Kinetic	5-500 IU/l	9.3
21.	SERUM	Iron	Ferrozine	10-2000 ug/dl	9.1
22.	SERUM	TIBC	Ferrozine, MgCO ₃	10-2000 ug/dl	8.8
23.	SERUM	LDH	L to P, UV kinetic	10-1800 U/L	7.0
24.	SERUM	AST	L-Aspartate, MDH,UV Kinetic	5-1600 IU/l	8.7
II. <u>CLINICAL PATHOLOGY</u>					
1.	URINE	Specific Gravity	Concentration of Ions-Multistrip Method	1.0-1.030	NA
		Albumin	Protein Error of Indicator - Multi Strip Method	Neg. -- ++++	NA

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		Glucose	Glucose Oxidase-Peroxidase Reaction-Multi Strip Method	Neg. -- +++++	NA
		pH	Double Indicator Principle-Multi Strip Method	5-8.5	NA
		Ketone Bodies	Rothera's Test (Nitroprusside Reaction)-Multi Strip Method	Neg. - Large	NA
		Bile Salt	Manual-Hay's Sulphur Flower (Surface Tension) Test	NA	NA
		Bile Pigment	Fouchet Test- Manual	NA	NA
		Occult Blood	Peroxidase Like Activity of Hb-Multi Strip method	NA	NA
		Urobilinogen	Ehrlich's Reaction – Multi Strip Method	0.2-8 Ehrlich unit/dl	NA
		Microscopic Examination	Microscopy	NA	NA
2.	BODY FLUIDS	Microscopy Examination	Microscopy	NA	NA

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III. HAEMATOLOGY & IMMUNOHAEMATOLOGY

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S.No.	Product / Material of Test	Specific Test Performed	Test Method	Range of Testing / Limits of Detection	CV%
1.	ANTI-COAGULATED BLOOD (EDTA)	Hb Estimation	Non Cyanmeth Hb Estimation	0-24 gm / dl	2.2
2.	ANTI-COAGULATED BLOOD (EDTA)	Total WBC Count	Electrical Impedence	0-120 x 10 ³ / μl	4.1
3.	ANTI-COAGULATED BLOOD (EDTA)	Differential WBC Count	Electrical Impedence & Microscopy		
		Neutrophils %		0-100%	1.1
		Lymphocytes%		0-100%	3.3
		Monocytes %		0-100%	12.1
		Eosinophils %		0-100%	9.1
		Basophils %		0-100%	1.3
4.	ANTI-COAGULATED BLOOD (EDTA)	RBC Count	Electrical Impedence	0-8 x 10 ⁶ μl	2.4
5.	ANTI-COAGULATED BLOOD (EDTA)	MCV	Calculated	NA	2.1
6.	ANTI-COAGULATED	MCH	Calculated	NA	1.8

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	BLOOD (EDTA)				
7.	ANTI-COAGULATED BLOOD (EDTA)	MCHC	Calculated	NA	2.8
8.	ANTI-COAGULATED BLOOD (EDTA)	RDW	Calculated	NA	3.0
9.	ANTI-COAGULATED BLOOD (EDTA)	HCT	Pulse Height Detection Method	0-67%	2.9
10.	ANTI-COAGULATED BLOOD (EDTA)	Platelet Count	Electrical Impedence	0 – 1900 x 10 ³ /µl	7.9
11.	ANTI-COAGULATED BLOOD (EDTA)	PSMP	Microscopy (Giemsa Stain)	Negative to positive (4+)	NA
12.	ANTI-COAGULATED BLOOD (EDTA)	Malarial Antigen Detection Test	Immunochromatography (PF-HRP-2 & PV Ag-pLDH)	Negative to positive	NA
13.	ANTI-COAGULATED	Peripheral Smear Examination	Microscopy (Giemsa Stain)	NA	NA

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	BLOOD (EDTA)				
14.	ANTI-COAGULATED BLOOD (EDTA)	ESR	Westergren Method	0-150 cumm at the end of 1st hour.	NA
15.	ANTI-COAGULATED BLOOD (EDTA)	Reticulocyte Count	Reticulocyte Stain (New Methylene Blue Stain) / Microscopy	0-100%	NA
16.	BONE MARROW MATERIAL	Bone Marrow Smear Examination	Microscopy (Giemsa Stain)	NA	NA
17.	BLOOD (CITRATED PLASMA)	Prothrombin Time	Manual Method	Upto 120 sec	2.9
18.	BLOOD (CITRATED PLASMA)	Activated Partial Thromboplastin Time	Manual Method	Upto 120 sec	5.4
19.	ANTI-COAGULATED BLOOD (EDTA)	Identification and quantification of HbA, HbA2, HbF, HbS, HbD, HbD Iran, HbE	Ion Exchange High Performance Liquid Chromatography	HbA2:1-13% HbF:1-40%	3.3 4.1

IV. MICROBIOLOGY & SEROLOGY

Devaki Devi Mandava
Convenor

Dr. Vandana Jain
Program Manager

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1.	ANY CLINICAL SAMPLE (URINE/ PUS/ BLOOD/ BODY FLUIDS /CSF / SWAB/ SPUTUM/TIP/DRAIN/STOOL/ CORNEAL RIM/BILE/ BAL/SCARING MATERIAL/ TISSUE/ CORNEAL BUTTON)	Aerobic Culture and Sensitivity	Manual	Bacterial Spp. Isolated/ No Growth	NA
2.	ANY CLINICAL SAMPLE (URINE/ PUS/ BLOOD/ BODY FLUIDS / CSF / SWAB/ SPUTUM/TIP/ DRAIN/STOOL/ CORNEAL RIM/BILE/ BAL/SCARING MATERIAL/ TISSUE/ CORNEAL BUTTON)	Gram stain	Microscopy	NA	NA
3.	ANY CLINICAL SAMPLE (URINE/	Acid Fast Stain	ZN Stain Method	Acid Fast Bacilli Seen/ Acid Fast Bacilli Not	NA

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	PUS/ BLOOD/ BODY FLUIDS /CSF / SWAB/ SPUTUM/ TIP/DRAIN/ STOOL/CORNEAL RIM/BILE/ BAL/SCARING MATERIAL/ TISSUE/ CORNEAL BUTTON)			Seen	
4.	THROAT SWAB	Albert Stain	Albert Stain	Corynebacterium Diphtheria are Seen/ Not Seen	NA
5.	SERUM	Antibodies to HIV	ELISA	Reactive /Non Reactive	5.8
6.	SERUM	Antibodies to HIV	Rapid Immunochromatography Test	Reactive /Non Reactive	NA
7.	SERUM	Antibodies to HIV	Rapid Dot Immuno Assay Test	Reactive /Non Reactive	NA
8.	SERUM	Antibodies to HIV	Rapid Immunoconcentration Test	Reactive /Non Reactive	NA
9.	SERUM	IgM Antibodies to	ELISA	Positive/Negative	4.8

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		Leptospira		Followed by titre	
10.	STOOL	Hanging Drop Preparation	Microscopy	Darting Motility seen/ Not seen	NA
11.	SERUM	MAT for Leptospira	MAT	Positive/Negative Followed by titre	NA
12.	SERUM	IgM Antibodies to Leptospira	Rapid Immunochromatography Test	Positive/Negative	NA
13.	SERUM	HBsAg	ELISA	Positive/Negative	6.2
14.	SERUM	HBsAg	Rapid Immunochromatography Test	Positive/Negative	NA
15.	SERUM	HCV	ELISA	Positive/Negative	5.7
16.	SERUM	HCV	Rapid Immunochromatography Test	Positive/Negative	NA
17.	SERUM	HEV	ELISA	Positive/Negative	7.3
18.	SERUM	HEV	Rapid Immunochromatography Test	Positive/Negative	NA
19.	SERUM	HAV	ELISA	Positive/Negative	4.8

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20.	SERUM	HAV	Rapid Immunochromatography Test	Positive/Negative	NA
21.	SERUM	RA	Latex Agglutination Test	Positive/Negative Followed by titre	NA
22.	SERUM	ASO	Latex Agglutination Test	Positive/Negative Followed by titre	NA
23.	SERUM	CRP	Latex Agglutination Test	Positive/Negative Followed by titre	NA
24.	SERUM	WIDAL Test	Tube Agglutination Test	Positive/Negative Followed by titre	NA
25.	SERUM	RPR	Flocculation Test	Reactive /Non-Reactive Followed by titre	NA
26.	SERUM	Enterocheck –WB	Rapid Immunochromatographic Test	Positive/Negative	NA

V. HISTOPATHOLOGY

Devaki Devi Mandava
Convenor

Dr. Vandana Jain
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1.	SMALL, MEDIUM & LARGE TISSUES RECEIVED IN FORMALIN	Grossing Decalcification, Processing, Paraffin Embedding Microtomy H& E Staining	As per laid down SOP`s Light Microscopy with Interpretation	Descriptive	NA
2.	SLIDES FOR SECOND OPINION	Stained / Unstained slides	Light Microscopy with Interpretation	Descriptive	NA
3.	PARAFFIN BLOCKS FOR SECOND OPINION	Microtomy H& E Staining	As per laid down SOP`s Light Microscopy with Interpretation	Descriptive	NA
4.	TISSUE/ PARAFFIN BLOCK/ UNSTAINED SLIDE	PAS stain (Periodic Acid Schiff)	As per laid down SOP`s Light Microscopy with Interpretation	Descriptive	NA
5.	TISSUE/ PARAFFIN BLOCK/ UNSTAINED SLIDE	Reticulin stain (Gordan and Sweet`s method)	As per laid down SOP`s Light Microscopy with Interpretation	Descriptive	NA
6.	TISSUE/	Perl`s Prussian blue	As per laid down SOP`s	Descriptive	NA

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	PARAFFIN BLOCK/ UNSTAINED SLIDE	stain, for Iron	Light Microscopy with Interpretation		
7.	TISSUE/ PARAFFIN BLOCK/ UNSTAINED SLIDE	ZN (Ziehl Neelsen) stain for AFB	As per laid down SOP's Light Microscopy with Interpretation	Positive / Negative	NA
8.	TISSUE/ PARAFFIN BLOCK/ UNSTAINED SLIDE	Masson Trichrome Stain	As per laid down SOP's Light Microscopy with Interpretation	Descriptive	NA
9.	TISSUE/ PARAFFIN BLOCK/ UNSTAINED SLIDE	Grocott Methanamine Silver Stain	As per laid down SOP's Light Microscopy with Interpretation	Positive / Negative	NA
10.	TISSUE/ PARAFFIN BLOCK/ UNSTAINED SLIDE	Alcian Blue Stain	As per laid down SOP's Light Microscopy with Interpretation	Descriptive	NA
11.	TISSUE/PARA-	Toludine Blue Stain	As per laid down SOP's	Descriptive	NA

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	FFIN BLOCK/ UNSTAINED SLIDE		Light Microscopy with Interpretation		
12.	TISSUE/PARA- FFIN BLOCK/ UNSTAINED SLIDE	Giemsa stain (May Gruwald Giemsa)	As per laid down SOP's Light Microscopy with Interpretation	Descriptive	NA
13.	TISSUE RECEIVED IN NORMAL SALINE	Grossing – Processing & section cutting by cryostat H& E Staining	As per laid down SOP's Light Microscopy with Interpretation	Descriptive	NA
VI. <u>CYTOPATHOLOGY</u>					
1.	PALPABLE OR NON PALPABLE LESIONS INVOLVING ANY ORGAN	FNA, Smear Preparation, H&E and MGG Staining.	As per laid down SOP's. Light microscopy with interpretation.	Descriptive	NA
2.	BODY FLUIDS (ASCITIC, PLEURAL, CSE, SYNOVIAL, PUS , BAL FLUID, ET SECRETION, NIPPLE DISCHARGE)	Cytospin/ Centrifugation, Smear Preparation, PAP, H&E and MGG Staining	As per laid down SOP's. Light microscopy with interpretation.	Descriptive	NA
3.	UNSTAINED	PAP, H&E stain,	As per laid down SOP's.	Descriptive	NA

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	SMEAR	MGG Stain	Light microscopy with interpretation		
4.	SCRAPINGS/ BRUSHINGS (GIT, BRONCHIAL, ORAL)	PAP, H & E stain, MGG stain	As per laid down SOP's. Light microscopy with interpretation	Descriptive	NA
5.	CERVICAL AND VAGINAL SMEARS (CONVENTIONAL)	PAP stain	As per laid down SOP's. Light microscopy with interpretation	Descriptive	NA

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Devaki Devi Mandava
Convenor

Dr. Vandana Jain
Program Manager