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DR LAL PATH LABS NEPAL PVT. LTD.

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Discipline: **CLINICAL BIO-CHEMISTRY, CLINICAL PATHOLOGY,
IMMUNOLOGY and HEMATOLOGY**

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BIOCHEMISTRY

MATERIAL EXAMINED/TEST ED		SPECIFIC TESTS/EXAMINATION PERFORMED	SPECIFICATION, STANDARD(METHOD) OR TECHNIQUE USED	RANGE OF TESTING /LIMIT OF DETECTION
1	PLASMA	GLUCOSE	GLUCOSE OXIDASE	5 – 800 mg/dl
2	SERUM	UREA	UREASE KINETIC	0-300 mg/dl
3	SERUM	CREATININE	ENZYMATIC UV METHOD	0-30 mg/dl
		GFR ESTIMATION	CALCULATED	
		GFR CATEGORY	CALCULATED	
		BLOOD UREA NITROGEN	CALCULATED	
		BUN/CREATININE RATIO	CALCULATED	
4	SERUM	URIC ACID	URICASE PEROXIDASE WITH ASCORBATE OXIDASE	0-20.2 mg/dl
5	SERUM	SODIUM	DIRECT MEASUREMENT WITH ISE	20-200 mmol/l
6	SERUM	POTASSIUM	DIRECT MEASUREMENT WITH ISE	0.20-40 mmol/l
7	SERUM	CHLORIDE	DIRECT MEASUREMENT WITH ISE	25.0-200 mmol/l

8	SERUM	PHOSPHOROUS	PHOSPHOMOLYBDATE, UV	0.39-30.7 mg/dl
9	SERUM	CALCIUM	ARSENZO III	0-20 mg/dl
10	SERUM	TOTAL BILIRUBIN	OXIDATION TO BILIVERDIN/VANADAT E	0-60 mg/dl
11	SERUM	BILIRUBIN DIRECT	OXIDATION TO BILIVERDIN/VANADAT E	0-25 mg/dl
		BILIRUBIN INDIRECT	CALCULATED	
12	SERUM	ASPARTATE AMINOTRANSFERASE(AST /SGOT)	TRIS BUFFER WITHOUT P5P 37°C	5-927 U/L
13	SERUM	ALANINE TRANSAMINASE(ALT/SGPT)	TRIS BUFFER WITHOUT P5P 37°C	11.8-1136 U/L
14	SERUM	ALKALINE PHOSPHATASE(ALP)	AMP OPTIMISED TO IFCC 37°C	15.1-1210 U/L
15	SERUM	GAMMA-GLUTAMYL TRANSPEPTIDASE(GGTP)	GAMMA GLUTAMYL	0-1430 U/L
16	SERUM	TOTAL PROTEIN	BIURET REACTION END POINT	2.5-140 g/L
17	SERUM	ALBUMIN	BROMOCRESOL GREEN	0-60 mg/dl
18	SERUM	GLOBULIN	CALCULATED	
19	SERUM	ALBUMIN GLOBULIN RATIO(A:G RATIO)	CALCULATED	
20	SERUM	CHOLESTEROL TOTAL	CHOLESTEROL OXIDASE	0-700 mg/dl
21	SERUM	TRIGLYCERIDES	LIPASE/GPO-PAP NO CORRECTION	0-1124 mg/dl
22	SERUM	HIGH DENSITY LIPOPROTEIN(HDL CHOLESTEROL)	HOMOGENOUS	0-300 mg/dl
23		LOW DENSITY LIPOPROTEIN(LDL CHOLESTEROL)	CALCULATED	
		VERY LOW DENSITY LIPOPROTEIN(VLDL CHOLESTEROL)	CALCULATED	
		NON-HDL CHOLESTEROL	CALCULATED	
24	WHOLE BLOOD(ED TA)	HBA1c(GLYCOSYLATED HEMOGLOBIN)	HPLC	2.7-19.7%

IMMUNOLOGY

MATERIAL EXAMINED/TEST ED		SPECIFIC TESTS/EXAMINATION PERFORMED	SPECIFICATION, STANDARD(METHOD) OR TECHNIQUE USED	RANGE OF TESTING /LIMIT OF DETECTION
1	SERUM	VITAMIN B12: CYANOCOBALAMIN	ECLIA	52-2000 pg/ml
2	SERUM	VITAMIN D, 25- HYDROXY	ECLIA	8-250 nmol/L
3	SERUM	T3, TOTAL	ECLIA	0.195-6.51 ng/ml
4	SERUM	T4, TOTAL	ECLIA	0.420- 24.86µg/dl
5	SERUM	TSH	ECLIA	0.005-100 µIU/ml

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HEMATOLOGY				
MATERIAL EXAMINED/TEST ED		SPECIFIC TESTS/EXAMINATION PERFORMED	SPECIFICATION, STANDARD(METHOD)OR TECHNIQUE USED	RANGE OF TESTING /LIMIT OF DETECTION
1	WHOLE BLOOD(EDTA)	HEMOGLOBIN	CYANMETHEMOGLOBIN ,SPECTROPHOTOMETRY	0-24 g/dL
2	WHOLE BLOOD(EDTA)	PACKED CELL VOLUME (PCV)	ANALOGICAL INTEGRATION	
3	WHOLE BLOOD(EDTA)	RBC COUNT	ELECTRICAL IMPEDANCE	0-8x 10 ⁶ /mm ³
4	WHOLE BLOOD(EDTA)	MCV	CALCULATED	
5	WHOLE BLOOD(EDTA)	MENTZER INDEX		
6	WHOLE BLOOD(EDTA)	MCH	CALCULATED	
7	WHOLE BLOOD(EDTA)	MCHC	CALCULATED	
8	WHOLE BLOOD(EDTA)	RED CELL DISTRIBUTION WIDTH(RDW)	CALCULATED	
9	WHOLE BLOOD(EDTA)	TOTAL LEUKOCYTE COUNT(TLC)	ELECTRICAL IMPEDANCE	0-300x 10 ³ /mm ³
10	WHOLE BLOOD(EDTA)	SEGMENTED NEUTROPHILS	FLOW CYTOMETRY& ELECTRICAL IMPEDANCE	
11	WHOLE BLOOD(EDTA)	LYMPHOCYTES	FLOW CYTOMETRY& ELECTRICAL IMPEDANCE	
12	WHOLE BLOOD (EDTA)	MONOCYTES	FLOW CYTOMETRY& ELECTRICAL IMPEDANCE	

13	WHOLE BLOOD (EDTA)	EOSINOPHILS	FLOW CYTOMETRY& ELECTRICAL IMPEDANCE	
14	WHOLE BLOOD (EDTA)	BASOPHILS	FLOW CYTOMETRY& ELECTRICAL IMPEDANCE	
	WHOLE BLOOD (EDTA)	ABSOLUTE NEUTROPHILS COUNT	FLOW CYTOMETRY& ELECTRICAL IMPEDANCE	
15	WHOLE BLOOD (EDTA)	ABSOLUTE LYMPHOCYTES COUNT	FLOW CYTOMETRY& ELECTRICAL IMPEDANCE	
16	WHOLE BLOOD (EDTA)	ABSOLUTE MONOCYTES COUNT	FLOW CYTOMETRY& ELECTRICAL IMPEDANCE	
17	WHOLE BLOOD (EDTA)	ABSOLUTE EOSINOPHILS COUNT	FLOW CYTOMETRY& ELECTRICAL IMPEDANCE	
18	WHOLE BLOOD (EDTA)	ABSOLUTE BASOPHILS COUNT	FLOW CYTOMETRY& ELECTRICAL IMPEDANCE	
19	WHOLE BLOOD (EDTA)	PLATELETS COUNT	ELECTRICAL IMPEDANCE	0-2500x 10 ³ /mm ³
20	WHOLE BLOOD (EDTA)	MEAN PLATELETS VOLUME	ELECTRICAL IMPEDANCE	

CLINICAL PATHOLOGY				
MATERIAL EXAMINED/TESTED	SPECIFIC TESTS/EXAMINATION PERFORMED	SPECIFICATION, STANDARD(METHOD) OR TECHNIQUE USED	RANGE OF TESTING /LIMIT OF DETECTION	
1	URINE	COLOUR	MANUAL/VISUAL	NA
2	URINE	SPECIFIC GRAVITY	APPARENT PKA CHANGE	1.0 1.030
3	URINE	PH	DOUBLE INDICATOR	5.0 - 8.5
4	URINE	PROTEIN	PROTEIN –ERROR-OF - INDICATOR	Neg to 4+(0->2000 mg/dl)
5	URINE	BLOOD	PSEUDOPEROXIDASE ACTIVITY	Neg to 4+(0-200
6	URINE	GLUCOSE	GULCOSE OXIDASE AND PERIOXIDASE	Neg to 4+(0->2000 mg/dl
7	URINE	KETONES	ROTHERA'S TEST	Neg to 4+(0-160 mg/dl
8	URINE	BILIRUBIN	JENDRASSIK-GROF METHOD	Neg to 3+
9	URINE	UROBILINOGEN	EHRlich REACTION	Neg to 4+
10	URINE	LEUCOCYTE ESTERASE	LEUCOCYTE ESTERASE	Neg to 4+
11	URINE	NITRITE	GRIESS'S TEST	Neg to 4+
12	URINE	RBC	VISUAL/MICROSCOPY	NA
13	URINE	PUS CELLS	VISUAL/MICROSCOPY	NA
14	URINE	EPITHELIAL CELLS	VISUAL/MICROSCOPY	NA
15	URINE	CAST	VISUAL/MICROSCOPY	NA
16	URINE	CRYSTALS	VISUAL/MICROSCOPY	NA
17	URINE	OTHERS	VISUAL/MICROSCOPY	NA

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