Patient Name	: Mr.PARAM SINGH	Collected	: 19/Jan/2026 06:51AM
Age/Gender	: 30 Y 4 M 25 D /M	Received	: 19/Jan/2026 12:29PM
UHID/MR No	: APJ1.0027315797	Reported	: 19/Jan/2026 01:09PM
Visit ID	: DPHROPV51980	Status	: Final Report
Ref Doctor	: Dr.SELF	Client Name	: PUP 24X7_CREDIT
IP/OP NO	:	Center location	: Harlur,Bangalore

DEPARTMENT OF HAEMATOLOGY

APOLLO DIABETES PANEL- ESSENTIAL

Test Name	Result	Unit	Bio. Ref. Interval	Method
COMPLETE BLOOD COUNT (CBC) , *WHOLE BLOOD EDTA*				
HAEMOGLOBIN	16.3	g/dL	13-17	Spectrophotometer
PCV	48.50	%	40-50	Electronic pulse & Calculation
RBC COUNT	5.48	Million/cu.mm	4.5-5.5	Electrical Impedence
MCV	88.5	fL	83-101	Calculated
MCH	29.8	pg	27-32	Calculated
MCHC	33.7	g/dL	31.5-34.5	Calculated
R.D.W	12.6	%	11.6-14	Calculated
TOTAL LEUCOCYTE COUNT (TLC)	7,250	cells/cu.mm	4000-10000	Electrical Impedance
DIFFERENTIAL LEUCOCYTIC COUNT (DLC)				
NEUTROPHILS	**39.4**	%	40-80	Electrical Impedance
LYMPHOCYTES	**48.3**	%	20-40	Electrical Impedance
EOSINOPHILS	4.8	%	1-6	Electrical Impedance
MONOCYTES	6.9	%	2-10	Electrical Impedance
BASOPHILS	0.6	%	<1-2	Electrical Impedance
CORRECTED TLC	7,250	Cells/cu.mm		Calculated
ABSOLUTE LEUCOCYTE COUNT				
NEUTROPHILS	2856.5	Cells/cu.mm	2000-7000	Calculated
LYMPHOCYTES	**3501.75**	Cells/cu.mm	1000-3000	Calculated
EOSINOPHILS	348	Cells/cu.mm	20-500	Calculated
MONOCYTES	500.25	Cells/cu.mm	200-1000	Calculated
BASOPHILS	43.5	Cells/cu.mm	0-100	Calculated
Neutrophil lymphocyte ratio (NLR)	0.82		0.78- 3.53	Calculated
PLATELET COUNT	250000	cells/cu.mm	150000-410000	Electrical impedence
MPV	**7.8**	Fl	8.1-13.9	Calculated

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SIN No:HA10473844

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Patient Name	: Mr.PARAM SINGH	Collected	: 19/Jan/2026 06:51AM
Age/Gender	: 30 Y 4 M 25 D /M	Received	: 19/Jan/2026 12:42PM
UHID/MR No	: APJ1.0027315797	Reported	: 19/Jan/2026 01:50PM
Visit ID	: DPHROPV51980	Status	: Final Report
Ref Doctor	: Dr.SELF	Client Name	: PUP 24X7_CREDIT
IP/OP NO	:	Center location	: Harlur,Bangalore

DEPARTMENT OF BIOCHEMISTRY

APOLLO DIABETES PANEL- ESSENTIAL

Test Name	Result	Unit	Bio. Ref. Interval	Method
GLUCOSE, FASTING , *NAF PLASMA*	85	mg/dL	70-100	GOD - POD

Comment:

As per American Diabetes Guidelines, 2023

Fasting Glucose Values in mg/dL	Interpretation
70-100 mg/dL	Normal
100-125 mg/dL	Prediabetes
≥126 mg/dL	Diabetes
<70 mg/dL	Hypoglycemia

Note:

1.The diagnosis of Diabetes requires a fasting plasma glucose of > or = 126 mg/dL and/or a random / 2 hr post glucose value of > or = 200 mg/dL on at least 2 occasions.

2. Very high glucose levels (>450 mg/dL in adults) may result in Diabetic Ketoacidosis & is considered critical.

Test Name	Result	Unit	Bio. Ref. Interval	Method
GLUCOSE, POST PRANDIAL (PP), 2 HOURS , *SODIUM FLUORIDE PLASMA (2 HR)*	83	mg/dL	70-140	GOD - POD

Comment:

It is recommended that FBS and PPBS should be interpreted with respect to their Biological reference ranges and not with each other.

Conditions which may lead to lower postprandial glucose levels as compared to fasting glucose levels may be due to reactive hypoglycemia, dietary meal content, duration or timing of sampling after food digestion and absorption, medications such as insulin preparations, sulfonylureas, amylin analogues, or conditions such as overproduction of insulin.

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SIN No:BI30069436

Patient Name	: Mr.PARAM SINGH	Collected	: 19/Jan/2026 06:51AM
Age/Gender	: 30 Y 4 M 25 D /M	Received	: 19/Jan/2026 12:45PM
UHID/MR No	: APJ1.0027315797	Reported	: 19/Jan/2026 01:51PM
Visit ID	: DPHROPV51980	Status	: Final Report
Ref Doctor	: Dr.SELF	Client Name	: PUP 24X7_CREDIT
IP/OP NO	:	Center location	: Harlur,Bangalore

DEPARTMENT OF BIOCHEMISTRY

APOLLO DIABETES PANEL- ESSENTIAL

Test Name	Result	Unit	Bio. Ref. Interval	Method
HBA1C (GLYCATED HEMOGLOBIN) , *WHOLE BLOOD EDTA*				
HBA1C, GLYCATED HEMOGLOBIN	4.9	%		HPLC
ESTIMATED AVERAGE GLUCOSE (eAG)	94	mg/dL		Calculated

Comment:

Reference Range as per American Diabetes Association (ADA) 2023 Guidelines:

Reference Group	HbA1c (%)	HbA1c (mmol/mol)
Non-Diabetic	<5.7	<38.8
Prediabetes	5.7 – 6.4	38.8 – 46.5
Diabetes	≥ 6.5	≥47.5
Diabetics		
Excellent control	6 – 7	42.1 – 53.0
Fair to good control	7 – 8	53.0 – 63.9
Unsatisfactory control	8 – 10	63.9 – 85.8
Poor control	>10	>85.8
Note: HbA1c IFCC (mmol/mol) = (10.93 x HbA1c NGSP (%)) – 23.50		

1. HbA1C is recommended by American Diabetes Association for Diagnosing Diabetes and monitoring Glycemic Control by American Diabetes Association guidelines 2023.
2. Trends in HbA1c values is a better indicator of Glycemic control than a single test.
3. Low HbA1c in Non-Diabetic patients are associated with Anemia (Iron Deficiency/Hemolytic), Liver Disorders, Chronic Kidney Disease. Clinical Correlation is advised in interpretation of low Values.
4. Falsely low HbA1c (below 4%) may be observed in patients with clinical conditions that shorten erythrocyte life span or decrease mean erythrocyte age. HbA1c may not accurately reflect glycemic control when clinical conditions that affect erythrocyte survival are present.
5. In cases of Interference from Haemoglobin variants (HbF >25%, Homozygous Hemoglobinopathies) in HbA1C testing, alternative methods (Fructosamine) estimation is recommended for Glycemic Control. Abnormal Haemoglobin studies (HPLC/Electrophoresis) is recommended for detection of Hemoglobinopathies.

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SIN No:BI30069432

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Patient Name	: Mr.PARAM SINGH	Collected	: 19/Jan/2026 06:51AM
Age/Gender	: 30 Y 4 M 25 D /M	Received	: 19/Jan/2026 12:38PM
UHID/MR No	: APJ1.0027315797	Reported	: 19/Jan/2026 01:24PM
Visit ID	: DPHROPV51980	Status	: Final Report
Ref Doctor	: Dr.SELF	Client Name	: PUP 24X7_CREDIT
IP/OP NO	:	Center location	: Harlur,Bangalore

DEPARTMENT OF BIOCHEMISTRY

APOLLO DIABETES PANEL- ESSENTIAL

Test Name	Result	Unit	Bio. Ref. Interval	Method
LIPID PROFILE , *SERUM*				
TOTAL CHOLESTEROL	142	mg/dL	< 200	CHOD-PAD
TRIGLYCERIDES	73	mg/dL	< 150	GPO-PAP
HDL CHOLESTEROL	46	mg/dL	>=40 Desirable	Enzymatic Immunoinhibition
NON-HDL CHOLESTEROL	96	mg/dL	<130	Calculated
LDL CHOLESTEROL	80.94	mg/dL	<100	Calculated (Friedewald)
VLDL CHOLESTEROL	14.56	mg/dL	<30	Calculated
CHOL / HDL RATIO	3.05		0-4.97	Calculated
ATHEROGENIC INDEX (AIP)	< 0.01		<0.11	Calculated

Comment:

Reference Interval as per National Cholesterol Education Program (NCEP) Adult Treatment Panel III Report.
Below Table as per Lipid Association of India (LAI) (2023) and Cardiological Society of India (CSI) (2024) Guidelines and Consensus Statements for Dyslipidemia Management:

	Low Risk	Moderate Risk	High Risk	Very High Risk	Extremely High Risk
Total Cholesterol	< 200	< 200	200 – 239	≥ 240	≥ 240
Triglycerides	<150	< 150	150 – 199	200 – 499	≥ 500
LDL	< 100	100 – 129	130 – 159 Target for High Risk: < 70	160 – 189 Target for Very High Risk: < 50	≥ 190 Target for Extreme Risk – Category A,B :< 30,Category C: 10 – 15
HDL	≥ 60	≥ 60	M: <40, F: <50	<30	<30
Non-HDL Cholesterol	< 130	130 – 159	160-189 Target for High Risk: < 100	190 – 219 Target for Very High Risk: < 80	≥220 Target for Extreme Risk – Category A,B :< 60, Category C: 40 – 45

Note: **Low risk** – No known risk factor of cardiovascular disease.**Moderate risk** – Any one risk factor eg;smoking/hypertension/diabetes mellitus etc.
High risk – Two or more risk factors without any disease manifestation, chronic kidney disease, long-standing diabetes mellitus existing for >10 years,history of heterozygous familial hypercholesterolemia. **Very high risk** – clinical evidence of coronary artery disease, long-standing diabetes mellitus existingfor >20 years, etc. **Extremely high risk** – recurrent vascular events.
1. Measurements for Lipids (Especially Triglycerides) can show physiological (Dependent on diet,10-12 hrs fasting pre-test condition) & analytical variations.
2. Lipid Association of India (LAI) recommends screening of all adults (>20 yrs) for Atherosclerotic Cardiovascular Disease (ASCVD) risk factors with lipid profile testing. The association recommends testing also to include Apolipoprotein B & Lipoprotein (a) for stratification and defining LDL – C targets.

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IP/OP NO	:	Center location	: Harlur,Bangalore

DEPARTMENT OF BIOCHEMISTRY

APOLLO DIABETES PANEL- ESSENTIAL

Test Name	Result	Unit	Bio. Ref. Interval	Method
LIVER FUNCTION TEST (LFT) , *SERUM*				
BILIRUBIN, TOTAL	0.68	mg/dL	0-1.2	Diazo
BILIRUBIN CONJUGATED (DIRECT)	0.28	mg/dL	0-0.3	Diazo
BILIRUBIN (INDIRECT)	0.39	mg/dL	0.0-1.1	Calculated
ALANINE AMINOTRANSFERASE (ALT/SGPT)	28.5	U/L	10-50	IFCC with Pyridoxal Phosphate
ASPARTATE AMINOTRANSFERASE (AST/SGOT)	25.2	U/L	10-50	IFCC with Pyridoxal Phosphate
AST (SGOT) / ALT (SGPT) RATIO (DE RITIS)	0.9		<1.15	Calculated
ALKALINE PHOSPHATASE	79.20	U/L	40-129	IFCC
PROTEIN, TOTAL	7.04	g/dL	6.4-8.3	Biuret
ALBUMIN	4.71	g/dL	3.5-5.2	Bromo Cresol Green
GLOBULIN	2.33	g/dL	2.0-3.5	Calculated
A/G RATIO	**2.02**		0.9-2.0	Calculated

Comment:

LFT results reflect different aspects of the health of the liver, i.e., hepatocyte integrity (AST & ALT), synthesis and secretion of bile (Bilirubin, ALP), cholestasis (ALP, GGT), protein synthesis (Albumin) Common patterns seen:

1. Hepatocellular Injury: *AST – Elevated levels can be seen. However, it is not specific to liver and can be raised in cardiac and skeletal injuries.*ALT – Elevated levels indicate hepatocellular damage. It is considered to be most specific lab test for hepatocellular injury. Values also correlate well with increasing BMI. Disproportionate increase in AST, ALT compared with ALP. AST: ALT (ratio) – In case of hepatocellular injury AST: ALT > 1In Alcoholic Liver Disease AST: ALT usually >2. This ratio is also seen to be increased in NAFLD, Wilsons's diseases, Cirrhosis, but the increase is usually not >2.Note- If both SGPT and SGOT are within reference range then AST:ALT (De Ritis ratio) does not have any clinical significance.
2. Cholestatic Pattern:*ALP – Disproportionate increase in ALP compared with AST, ALT. ALP elevation also seen in pregnancy, impacted by age and sex.*Bilirubin (Direct) and GGT elevated- helps to establish hepatic origin.
3. Synthetic function impairment:*Albumin- Liver disease reduces albumin levels, Correlation with PT (Prothrombin Time) helps.
4. Associated tests for assessment of liver fibrosis - Fibrosis-4 and APRI Index.

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SIN No:BI30069433

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Visit ID	: DPHROPV51980	Status	: Final Report
Ref Doctor	: Dr.SELF	Client Name	: PUP 24X7_CREDIT
IP/OP NO	:	Center location	: Harlur,Bangalore

DEPARTMENT OF BIOCHEMISTRY

APOLLO DIABETES PANEL- ESSENTIAL

Test Name	Result	Unit	Bio. Ref. Interval	Method
RENAL PROFILE/KIDNEY FUNCTION TEST (RFT/KFT) , *SERUM*				
CREATININE	0.76	mg/dL	0.7-1.2	Jaffe
.eGFR - ESTIMATED GLOMERULAR FILTRATION RATE	123.70	mL/min/1.73m²	>60	CKD-EPI Formula 2021
UREA	38.90	mg/dL	13-43	Urease
BLOOD UREA NITROGEN	18.2	mg/dL	8.0 - 23.0	Calculated
URIC ACID	6.77	mg/dL	3.5-7.2	Uricase
CALCIUM	9.40	mg/dL	8.6-10	NM-Bapta
PHOSPHORUS, INORGANIC	3.87	mg/dL	2.5-4.5	Phosphomolybdate Complex
SODIUM	141	mmol/L	136-145	ISE (Indirect)
POTASSIUM	4.6	mmol/L	3.5-5.1	ISE (Indirect)
CHLORIDE	104	mmol/L	98-107	ISE (Indirect)
PROTEIN, TOTAL	7.04	g/dL	6.4-8.3	Biuret
ALBUMIN	4.71	g/dL	3.5-5.2	Bromo Cresol Green
GLOBULIN	2.33	g/dL	2.0-3.5	Calculated
A/G RATIO	**2.02**		0.9-2.0	Calculated

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SIN No:BI30069433

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DEPARTMENT OF BIOCHEMISTRY

APOLLO DIABETES PANEL- ESSENTIAL

Test Name	Result	Unit	Bio. Ref. Interval	Method
C-REACTIVE PROTEIN CRP (QUANTITATIVE) , *SERUM*	4.04	mg/L	0-5	Latex Particle Immunoturbidimetric

Comment:

C-reactive protein (CRP) is one of the most sensitive acute-phase reactants for inflammation. Measuring changes in the concentration of CRP provides useful diagnostic information about the level of acuity and severity of a disease. Unlike ESR, CRP levels are not influenced by hematologic conditions such as anemia, polycythemia etc.

Increased levels are consistent with an acute inflammatory process. After onset of an acute phase response, the serum CRP concentration rises rapidly (within 6-12 hours and peaks at 24-48 hours) and extensively.Concentrations above 100 mg/L are associated with severe stimuli such as major trauma and severe infection (sepsis).

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Patient Name	: Mr.PARAM SINGH	Collected	: 19/Jan/2026 06:51AM
Age/Gender	: 30 Y 4 M 25 D /M	Received	: 19/Jan/2026 12:38PM
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DEPARTMENT OF BIOCHEMISTRY

APOLLO DIABETES PANEL- ESSENTIAL

Test Name	Result	Unit	Bio. Ref. Interval	Method
ESTIMATED GLOMERULAR FILTRATION RATE (EGFR) WITH CREATININE , *SERUM*				
CREATININE	0.76	mg/dL	0.7-1.2	Jaffe
eGFR - ESTIMATED GLOMERULAR FILTRATION RATE	123.70	mL/min/1.73m²	>60	CKD-EPI Formula

Comment:

This table shows prognosis of chronic kidney disease (CKD) by eGFR:

GFR Category	Description	GFR Range (mL/min/1.73 m²)
G1 & G2	Normal	≥ 60
G3a	Mildly to moderately decreased	45–59
G3b	Moderately to severely decreased	30-44
G4	Severely decreased	15-29
G5	Kidney failure	< 15

Reference:

Kidney Disease: Improving Global Outcomes (KDIGO) Diabetes Work Group. (2022). KDIGO 2022 Clinical Practice Guideline for Diabetes Management in Chronic Kidney Disease. Kidney International, 102(5S), S1–S127. https://doi.org/10.1016/j.kint.2022.07.001

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SIN No:BI30069433

Patient Name	: Mr.PARAM SINGH	Collected	: 19/Jan/2026 06:51AM
Age/Gender	: 30 Y 4 M 25 D /M	Received	: 19/Jan/2026 04:16PM
UHID/MR No	: APJ1.0027315797	Reported	: 19/Jan/2026 05:26PM
Visit ID	: DPHROPV51980	Status	: Final Report
Ref Doctor	: Dr.SELF	Client Name	: PUP 24X7_CREDIT
IP/OP NO	:	Center location	: Harlur,Bangalore

DEPARTMENT OF BIOCHEMISTRY

APOLLO DIABETES PANEL- ESSENTIAL

Test Name	Result	Unit	Bio. Ref. Interval	Method
MICROALBUMIN /CREATININE RATIO - URINE , *URINE*				
MICROALBUMIN (MAU)- SPOT URINE	0.111	mg/dL	<3	Immunoturbidimetric
CREATININE - URINE	89	mg/dL	20-400	Enzyme Kinetic
URINE MICROALBUMIN/CREATININE RATIO	1.25	ug/mg	<30	Calculated

Comment:

American Diabetes Association Definition of Microalbuminuria

CATEGORY	MICROALBUMIN 24 HOUR URINE (mg/24 hour)	MICROALBUMIN (MAU)/CREATININE RATIO (µg/mg of creatinine)
NORMAL	< 30	< 30
MICROALBUMINURIA	30- 300	30- 300
CLINICAL ALBUMINURIA	> 300	> 300

Measurement of the urine albumin-to-creatinine ratio is recommended by the American Diabetes Association to screen for microalbuminuria.

Increased excretion of albumin (microalbuminuria) is a predictor of future development of clinical renal disease in patients with hypertension or DM.

Microalbuminuria may be seen transiently during pregnancy, after exercise, and with protein loading, hyperglycemia, fever, and urinary tract infections. There is also day-to-day, as well as diurnal, variation in albumin excretion. Hence, it is important to base treatment on the results of several tests. Vigorous exercise can cause a transient increase in albumin excretion. Patients should refrain from vigorous exercise in the 24 hours prior to the test.

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SIN No:BI30069434

Patient Name	: Mr.PARAM SINGH	Collected	: 19/Jan/2026 06:51AM
Age/Gender	: 30 Y 4 M 25 D /M	Received	: 19/Jan/2026 12:13PM
UHID/MR No	: APJ1.0027315797	Reported	: 19/Jan/2026 01:02PM
Visit ID	: DPHROPV51980	Status	: Final Report
Ref Doctor	: Dr.SELF	Client Name	: PUP 24X7_CREDIT
IP/OP NO	:	Center location	: Harlur,Bangalore

DEPARTMENT OF BIOCHEMISTRY

APOLLO DIABETES PANEL- ESSENTIAL

Test Name	Result	Unit	Bio. Ref. Interval	Method
HOMA2 IR (INSULIN RESISTANCE INDEX)				
INSULIN (FASTING)	7.89	µlU/mL	2.6-24.9	ECLIA
FASTING GLUCOSE	83.9	mg/dL	70-100	HEXOKINASE
BETA CELL FUNCTION (%B)	111.5	%	>87.12	CALCULATED
INSULIN SENSITIVITY (%S)	99.5	%	>53.9	CALCULATED
HOMA2 IR INDEX	1.01		<1.69	CALCULATED
QUICKI	**0.35**		>0.45	CALCULATED

Comment:

HOMA2 IR INDEX	INTERPRETATION	QUICKI	INTERPRETATION
<1.69	Normal Insulin Resistance	>0.45	Normal, non- diabetic
1.69-2.72	Moderate Insulin Resistance	0.3 - 0.45	Insulin resistance likely
>2.72	Severe Insulin Resistance	<0.30	Diabetes diagnosis likely

HOMA2-IR (Homeostatic Model Assessment for Insulin Resistance):
a) HOMA2 is the updated HOMA model where HOMA2 calculator (version 2.2) is used to calculate HOMA2 IR index, beta cell function (%B) and insulin sensitivity (%S) from fasting glucose and insulin concentrations.
b) HOMA2 IR index is used to measure severity of insulin resistance, though normal insulin resistance varies depending on the population It is most useful for epidemiologic, population-based, and other group level assessments.
c) HOMA2-IR index is an alternative for estimating insulin resistance (IR), has been examined in multiple studies. Results show reasonable correlation between HOMA2-IR and 'clamp' measurement, the gold standard.
d) HOMA2-IR index should not be used in patients on insulin, and studies have shown its limited accuracy in those with impaired glucose tolerance, normal BMI and elderly.

QUICKI (Quantitative Insulin Sensitivity Check Index):
a) QUICKI is an index used to assess insulin resistance, just like HOMA2-IR from fasting glucose and insulin concentrations.
b) The smaller the QUICKI index is, the larger the probability there is a carbohydrate metabolism disorder.
c) QUICKI has been shown to be a useful index of insulin sensitivity in various populations, including those with hypertension and type 2 diabetes.

Reference:
https://www.rdm.ox.ac.uk/about/our-facilities-and-units/DTU/software/homa
https://www.omnicalculator.com/health/quicki

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SIN No:BI30069435

Patient Name	: Mr.PARAM SINGH	Collected	: 19/Jan/2026 06:51AM
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DEPARTMENT OF IMMUNOLOGY

APOLLO DIABETES PANEL- ESSENTIAL

Test Name	Result	Unit	Bio. Ref. Interval	Method
TSH (Ultrasensitive/4thGen) , *SERUM*	2.410	µlU/mL	0.270-4.20	ECLIA

Comment:

TSH is a glycoprotein hormone secreted by the anterior pituitary. TSH is a labile hormone & is secreted in a pulsatile manner throughout the day and is subject to several non-thyroidal pituitary influences. Significant variations in TSH can occur with circadian rhythm, hormonal status, stress, sleep deprivation, caloric intake, medication & circulating antibodies.

It is important to confirm any TSH abnormality in a fresh specimen drawn after ~ 3 weeks before assigning a diagnosis, as the cause of an isolated TSH abnormality.

For pregnant females	Bio Ref Range for TSH in uIU/ml (As per American Thyroid Association)
First trimester	0.1 - 2.5
Second trimester	0.2 – 3.0
Third trimester	0.3 – 3.0

Test Name	Result	Unit	Bio. Ref. Interval	Method
FREE T3 (FT3) , *SERUM*	3.27	pg/mL	2.66-4.33	ECLIA

Comment:

Elevated concentrations of FT3 occur in Grave's disease and most other classical causes of hyperthyroidism.Decreased concentrations occur in primary hypothyroid diseases such as Hashimoto thyroiditis and neonatal hypothyroidism or secondary hypothyroidism due to defects at the hypothalamohypophyseal level. It may decrease by ≤25% in healthy older persons while FT4 remains normal.

For pregnant females	Bio Ref Range for Free T3 (FT3) in pg/mL
First trimester	2.46 – 3.89
Second trimester	2.09 – 3.55
Third trimester	2.01 – 3.27

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SIN No:IM11182233

Patient Name	: Mr.PARAM SINGH	Collected	: 19/Jan/2026 06:51AM
Age/Gender	: 30 Y 4 M 25 D /M	Received	: 19/Jan/2026 12:11PM
UHID/MR No	: APJ1.0027315797	Reported	: 19/Jan/2026 01:00PM
Visit ID	: DPHROPV51980	Status	: Final Report
Ref Doctor	: Dr.SELF	Client Name	: PUP 24X7_CREDIT
IP/OP NO	:	Center location	: Harlur,Bangalore

DEPARTMENT OF IMMUNOLOGY

APOLLO DIABETES PANEL- ESSENTIAL

Test Name	Result	Unit	Bio. Ref. Interval	Method
FREE T4 (FT4) , *SERUM*	1.46	ng/dL	1.05-1.65	ECLIA

Comment:

FT4 gives corrected values in patients in whom the total T4 is altered on account of changes in serum proteins or in binding sites.Monitoring restoration to normal range is the only laboratory criterion to estimate appropriate replacement dose of levothyroxine because 6–8 weeks are required before TSH reflects these changes. FT4 assays are prone to inaccurate readings in pregnant women. Anticonvulsant drug therapy (particularly phenytoin) may result in decreased FT4 levels due to an increased hepatic metabolism and secondarily to displacement of hormone from binding sites.

For pregnant females	Bio Ref Range for Free T4 (FT4) in ng/dL
First trimester	0.94 – 1.52
Second trimester	0.75 – 1.32
Third trimester	0.65 – 1.24

Dr.Devi R.S
PhD(Biochemistry)
Consultant Biochemist

SIN No:IM11182233

Patient Name	: Mr.PARAM SINGH	Collected	: 19/Jan/2026 06:51AM
Age/Gender	: 30 Y 4 M 25 D /M	Received	: 19/Jan/2026 12:11PM
UHID/MR No	: APJ1.0027315797	Reported	: 19/Jan/2026 01:00PM
Visit ID	: DPHROPV51980	Status	: Final Report
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DEPARTMENT OF IMMUNOLOGY

APOLLO DIABETES PANEL- ESSENTIAL

Test Name	Result	Unit	Bio. Ref. Interval	Method
VITAMIN D (25 - OH VITAMIN D) , *SERUM*	**26.6**	ng/mL	30-100	ECLIA

Comment:

BIOLOGICAL REFERENCE RANGES

VITAMIN D STATUS	VITAMIN D 25 HYDROXY (ng/mL)
DEFICIENCY	<10
INSUFFICIENCY	10 – 30
SUFFICIENCY	30 – 100
TOXICITY	>100

The biological function of Vitamin D is to maintain normal levels of calcium and phosphorus absorption. 25-Hydroxy vitamin D is the storage form of vitamin D. Vitamin D assists in maintaining bone health by facilitating calcium absorption. Vitamin D deficiency can also cause osteomalacia, which frequently affects elderly patients.

Vitamin D Total levels are composed of two components namely 25-Hydroxy Vitamin D2 and 25-Hydroxy Vitamin D3 both of which are converted into active forms. Vitamin D2 level corresponds with the exogenous dietary intake of Vitamin D rich foods as well as supplements. Vitamin D3 level corresponds with endogenous production as well as exogenous diet and supplements. Vitamin D from sunshine on the skin or from dietary intake is converted predominantly by the liver into 25-hydroxy vitamin D, which has a long half-life and is stored in the adipose tissue. The metabolically active form of vitamin D, 1,25-di-hydroxy vitamin D, which has a short life, is then synthesized in the kidney as needed from circulating 25-hydroxy vitamin D. The reference interval of greater than 30 ng/mL is a target value established by the Endocrine Society.

Decreased Levels:- Inadequate exposure to sunlight, Dietary deficiency, Vitamin D malabsorption, Severe Hepatocellular disease., Drugs like Anticonvulsants, Nephrotic syndrome.

Increased levels:- Vitamin D intoxication.

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DEPARTMENT OF IMMUNOLOGY

APOLLO DIABETES PANEL- ESSENTIAL

Test Name	Result	Unit	Bio. Ref. Interval	Method
VITAMIN B12 , *SERUM*	**183**	pg/mL	197-771	ECLIA

Comment:

Population based data reflecting exact scenario of vitamin B12 levels in Indian population is still evolving, however, different studies reporting a deficiency in adults, pregnant women and children ranging from 16% to 77% with average of about 47%. This high incidence is attributed to vegetarian food habits of large majority of Indian population.

Vitamin B12 deficiency frequently causes macrocytic anemia, glossitis, peripheral neuropathy, weakness, hyperreflexia, ataxia, loss of proprioception, poor coordination, and affective behavioral changes. A significant increase in RBC MCV may be an important indicator of vitamin B12 deficiency. B12 levels in the range of 150 to 190 pg/ml may not be associated with any clinical manifestations, while B12 levels below 100 pg/ml are often associated with clinical symptoms. However, for an individual based on other co-morbid conditions or other nutritional deficiency (especially folate) the manifestations can vary accordingly.

If clinical symptoms suggest deficiency, measurement of active vitamin B12, MMA and homocysteine should be considered as further workup.

Dr.Devi R.S
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Consultant Biochemist

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Age/Gender	: 30 Y 4 M 25 D /M	Received	: 19/Jan/2026 01:33PM
UHID/MR No	: APJ1.0027315797	Reported	: 19/Jan/2026 01:43PM
Visit ID	: DPHROPV51980	Status	: Final Report
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DEPARTMENT OF CLINICAL PATHOLOGY

APOLLO DIABETES PANEL- ESSENTIAL

Test Name	Result	Unit	Bio. Ref. Interval	Method
COMPLETE URINE EXAMINATION (CUE) , *URINE*				
Physical Examination				
COLOUR	PALE YELLOW		PALE YELLOW	Visual
TRANSPARENCY	CLEAR		CLEAR	Physical Measurement
pH	5.50		5-7.5	Double Indicator
SP. GRAVITY	1.022		1.002-1.030	Bromothymol Blue
BIOCHEMICAL EXAMINATION				
URINE PROTEIN	NEGATIVE		NEGATIVE	Protein Error of Indicator
GLUCOSE	NORMAL		NEGATIVE	Glucose Oxidase
URINE BILIRUBIN	NEGATIVE		NEGATIVE	Azo Coupling Reaction
URINE KETONES (RANDOM)	NEGATIVE		NEGATIVE	Sodium Nitro Prusside
UROBILINOGEN	NORMAL		NORMAL	Modifed Ehrlich Reaction
NITRITE	NEGATIVE		NEGATIVE	Diazotization
LEUCOCYTE ESTERASE	NEGATIVE		NEGATIVE	Leucocyte Esterase
CENTRIFUGED SEDIMENT WET MOUNT AND MICROSCOPY				
Pus Cells	2	/hpf	0-5	Microscopy
EPITHELIAL CELLS	0	/hpf	<10	Microscopy
RBC	0	/hpf	0-2	Microscopy
CASTS	NEGATIVE		0-2 Hyaline Cast	Microscopy
CRYSTALS	NEGATIVE		ABSENT	Microscopy

Comment:

All urine samples are checked for adequacy and suitability before examination. All abnormal chemical examination are rechecked and verified by manual methods. Microscopy findings are reported as an average of 10 high power fields.

***** End Of Report *****

Result/s to Follow:
C - PEPTIDE (FASTING)

Dr.Vinutha B
M.B.B.S,M.D(Pathology)
Consultant Pathologist

SIN No:C04296708

Patient Name	: Mr.PARAM SINGH	Collected	: 19/Jan/2026 06:51AM
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5. Results delays may occur due to unforeseen circumstances such as non-availability of kits, equipment breakdown, natural calamities, IT downtime, logistic delays or any other unavoidable event. For certain tests based on analyte stability, criticality of results and in the interest of patient for having appropriate medical diagnosis, the same test may be outsourced to other accredited laboratory.
6. It is presumed that the tests performed are, on the specimen / sample being to the patient named or identified and the verifications of particulars have been confirmed by the patient or his / her representative at the point of generation of said specimen
7. The reported results are restricted to the given specimen only. Results may vary from lab to lab and from time to time for the same parameter for the same patient (within subject biological variation).
8. The patient details along with their results in certain cases like notifiable diseases and as per local regulatory requirements will be communicated to the assigned regulatory bodies
9. The patient samples can be used as part of internal quality control, test verification, data analysis purposes within the testing scope of the laboratory.
10. This report is not valid for medico legal purposes. It is performed to facilitate medical diagnosis only

Dr.Vinutha B
M.B.B.S,M.D(Pathology)
Consultant Pathologist

SIN No:C04296708