

**Name** : Mrs. YOGALAKSHMI D  
**PID No.** : KLP285926  
**SID No.** : 118039850  
**Age / Sex** : 35 Year(s) / Female  
**Ref. Dr** : DR. DHANARAJ M

**Register On** : 14/08/2018 8:51 AM  
**Collection On** : 14/08/2018 8:53 AM  
**Report On** : 14/08/2018 4:59 PM  
**Printed On** : 16/08/2018 5:26 AM  
**Type** : OP



<u>Investigation</u>	<u>Observed Value</u>	<u>Unit</u>	<u>Biological Reference Interval</u>
<b>HAEMATOLOGY</b>			
Absolute Eosinophil Count (AEC) (EDTA Blood/Flow cytometry)	0.2	10 <sup>3</sup> / µl	0.04 - 0.44
<b>Complete Blood Count With - ESR</b>			
Haemoglobin (EDTA Blood/Photometry (cyanide free))	<b>12.4</b>	g/dL	12.5 - 16.0
PCV (Packed Cell Volume) / Haematocrit (EDTA Blood/Calculated)	37.1	%	37 - 47
RBC Count (EDTA Blood/Electrical Impedance)	4.76	mill/cu.mm	4.2 - 5.4
MCV (Mean Corpuscular Volume) (EDTA Blood/Calculated)	78.0	fL	78 - 100
MCH (Mean Corpuscular Haemoglobin) (EDTA Blood/Calculated)	<b>26.1</b>	pg	27 - 32
MCHC (Mean Corpuscular Haemoglobin concentration) (EDTA Blood/Calculated)	33.4	g/dL	32 - 36
RDW (EDTA Blood/Calculated)	14.8	%	12 - 15
Platelet Count (EDTA Blood/Electrical Impedance)	404	10 <sup>3</sup> / µl	150 - 450
MPV (EDTA Blood/Calculated)	8.4	fL	8.0 - 13.3
Total WBC Count (TC) (EDTA Blood/Electrical Impedance)	<b>16,200 (Rechecked)</b>	cells/cu.mm	4000 - 11000
<b>Differential Leucocyte Count</b>			
Neutrophils (EDTA Blood/Flow cytometry)	<b>75.5</b>	%	40 - 75
Lymphocytes (EDTA Blood/Flow cytometry)	<b>18.5</b>	%	20 - 45
Eosinophils (EDTA Blood/Flow cytometry)	1.0	%	01 - 06
Monocytes (EDTA Blood/Flow cytometry)	4.7	%	02 - 08
Basophils (EDTA Blood/Flow cytometry)	0.3	%	00 - 01
<b>INTERPRETATION:</b> Tests done on Automated Five Part cell counter. All abnormal results are reviewed and confirmed microscopically.			
ESR (Erythrocyte Sedimentation Rate) (Blood/Automated - Westergren method)	<b>40</b>	mm/hr	< 20

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**CONSULTANT- PATHOLOGIST**

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## BIOCHEMISTRY

**Glucose (Fasting) - FBS (Plasma - F/GOD-PAP)** 89.8 mg/dl 74 - 100

**INTERPRETATION:** Factors such as type & time of food intake, infection, physical or psychological stress, exercise & drugs can influence blood glucose levels

### Renal Function Test

**Urea (Serum/Urease/GLDH)** 19.4 mg/dL 15 - 45

**Creatinine (Serum/Modified Jaffe)** 0.93 mg/dL 0.6 - 1.1

**INTERPRETATION:** Elevated Creatinine values are encountered in increased muscle mass, severe dehydration, Pre-eclampsia, increased ingestion of cooked meat, consuming Protein/ Creatine supplements, Diabetic Ketoacidosis, prolonged fasting, renal dysfunction and drugs such as cefoxitin, cefazolin, ACE inhibitors, angiotensin II receptor antagonists, N-acetylcysteine, chemotherapeutic agent such as flucytosine etc.

**Uric Acid (Serum/Enzymatic)** 5.2 mg/dL 2.6 - 6.0

### Serum Electrolytes

**Sodium (Na+)** (Serum/Ion selective electrode (ISE)) 138.6 Mmol/L 136 - 145

**Potassium (K+)** (Serum/Ion selective electrode (ISE)) 4.76 Mmol/L 3.5 - 5.1

**Chloride** (Serum/Ion selective electrode (ISE)) 102.8 mmol/L 98 - 107

**Bicarbonate** (Serum/Manometric method) 22.1 mmol/L 22 - 29

### Urine Complete Analysis

**Colour (Urine)** Pale yellow Yellow to Amber

**pH (Urine)** 5.0 4.5 - 8.0

**Specific Gravity** (Urine/Polymethyl vinyl ether and maleic acid) 1.005 1.002 - 1.035

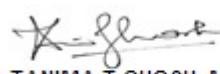
**Protein (Urine/Protein error of indicator)** Negative Negative

**Glucose (Urine/GOD - POD)** Negative Negative

**Ketone (Urine/Acetoacetic acid and sodium nitro prusside)** Negative Negative

**Nitrite (Urine/Diazo)** Negative Negative

**Bilirubin (Urine/Dichloroaniline diazonium )** Negative Negative



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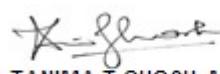


<u>Investigation</u>	<u>Observed Value</u>	<u>Unit</u>	<u>Biological Reference Interval</u>
Blood (Urine/Peroxidase)	Negative		Negative
Urobilinogen (Urine/Azo)	Normal		Normal
Pus Cells (Urine/Automated – Flow cytometry )	Occasional	/hpf	NIL
Epithelial Cells (Urine/Automated – Flow cytometry )	Occasional	/hpf	NIL
RBCs (Urine/Automated – Flow cytometry )	NIL	/hpf	NIL
Casts (Urine/Automated – Flow cytometry )	NIL	/hpf	NIL
Crystals (Urine/Automated – Flow cytometry )	NIL	/hpf	NIL
Appearance (Urine)	Clear		Clear
Others (Urine)	NIL		

**INTERPRETATION:** Note: Done with Automated Urine Analyser & Automated urine sedimentation analyser. All abnormal reports are reviewed and confirmed microscopically.

#### Liver Function Test

Bilirubin(Total) (Serum/DCA with ATCS)	0.45	mg/dL	0.1 - 1.2
Bilirubin(Direct) (Serum/Diazotized Sulfanilic Acid)	0.16	mg/dL	0.0 - 0.3
Bilirubin(Indirect) (Serum/Derived)	0.29	mg/dL	0.1 - 1.0
SGOT/AST (Aspartate Aminotransferase) (Serum/Modified IFCC)	14.3	U/L	5 - 40
SGPT/ALT (Alanine Aminotransferase) (Serum/Modified IFCC)	17.6	U/L	5 - 41
GGT(Gamma Glutamyl Transpeptidase) (Serum/IFCC / Kinetic)	28.2	U/L	< 38
Alkaline Phosphatase (SAP) (Serum/ Modified IFCC)	75.9	U/L	42 - 98
Total Protein (Serum/Biuret)	7.3	gm/dl	6.0 - 8.0
Albumin (Serum/Bromocresol green)	4.25	gm/dl	3.5 - 5.2
Globulin (Serum/Derived)	3.05	gm/dL	2.3 - 3.6

  
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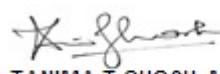
<u>Investigation</u>	<u>Observed Value</u>	<u>Unit</u>	<u>Biological Reference Interval</u>
A : G RATIO (Serum/Derived)	1.39		1.1 - 2.2
<u>Lipid Profile</u>			
Cholesterol Total (Serum/CHOD-PAP with ATCS)	177.8	mg/dL	Optimal: < 200 Borderline: 200 - 239 High Risk: >= 240
Triglycerides (TGL) (Serum/GPO-PAP with ATCS)	132.9	mg/dL	Optimal: < 150 Borderline: 150 - 199 High: 200 - 499 Very High: >= 500

**INTERPRETATION:** Values may vary due to intake of alcohol, diet which is high in carbohydrates, red meat, dairy products, exercise and medications such as Diuretics, steroids etc. Elevation to be considered only if repeated values are high.

Non HDL Cholesterol (Serum/Calculated)	131.4	mg/dL	Optimal: < 130 Above Optimal: 130 - 159 Borderline High: 160 - 189 High: 190 - 219 Very High: >= 220
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**INTERPRETATION:** 1. Non-HDL Cholesterol is now proven to be a better cardiovascular risk marker than LDL Cholesterol.  
2. It is the sum of all potentially atherogenic proteins including LDL, IDL, VLDL and chylomicrons and it is the "new bad cholesterol" and is a co-primary target for cholesterol lowering therapy.

HDL Cholesterol (Serum/Immunoinhibition)	46.4	mg/dL	Optimal(Negative Risk Factor): >= 60 Borderline: 50 - 59 High Risk: < 50
LDL Cholesterol (Serum/Calculated)	104.8	mg/dL	Optimal: < 100 Near Optimal: 100 - 129 Borderline: 130 - 159 High: 160 - 189 Very High: >= 190
VLDL Cholesterol (Serum/Derived)	26.6	mg/dL	< 30

  
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Total Cholesterol/HDL Ratio (Serum/Derived)	3.8		Normal: < 3.3 Low Risk: 3.4 - 4.4 Average Risk: 4.5 - 7.1 Moderate Risk: 7.2 - 11.0 High Risk: > 11.0
LDL/HDL Ratio (Serum)	2.3		Desirable: 0.5 - 3.0 Borderline: 3.1 - 6.0 Elevated: > 6.0
Nature of Serum (Serum)	Clear		Clear

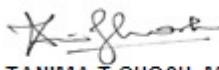
## IMMUNOASSAY

VITAMIN B12 (CYANOCOBALAMIN) (Serum/Chemiluminescent Immunometric Assay (CLIA))	651.0	pg/mL	Normal: 211 - 911 Deficient: < 211
VITAMIN D3 (25- DIHYDROXY CHOLECALCIFEROL) (Serum/Chemiluminescent Immunometric Assay (CLIA))	34.39	ng/ml	Deficiency: < 20 Insufficiency: 21.0 - 30.0 Sufficiency: 31.0 - 100.0 Toxicity: > 100.1

**INTERPRETATION:** Vitamin D(Calciferol) includes D3 (Cholecalciferol) and D2 (Ergocalciferol). Vitamin D3 is formed in the skin by the action of UVB or is ingested. Vitamin D2 mainly comes from plant sources. Vitamin D3 and D2 are hydroxylated in the liver to 25-hydroxyvitamin D (25-OHD)/Calcidiol. This is the major circulating form of vitamin D and is the target for assays measuring vitamin D status.

## THYROID PROFILE / TFT

T3 (Triiodothyronine) - Total (Serum/Chemiluminescent Immunometric Assay (CLIA))	1.07	ng/ml	0.8 - 1.6
T4 (Troxine) - Total (Serum/Chemiluminescent Immunometric Assay (CLIA))	7.4	µg/dl	4.2 - 12.0
TSH (Thyroid Stimulating Hormone) (Serum/Chemiluminescent Immunometric Assay (CLIA))	1.38	µIU/mL	0.4 - 4.2

  
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**INTERPRETATION:** Reference range for cord blood - upto 20

1 st trimester: 0.1-2.5

2 nd trimester 0.2-3.0

3 rd trimester : 0.3-3.0

(Indian Thyroid Society Guidelines)

TSH reference range during pregnancy depends on Iodine intake, TPO status, Serum HCG concentration, race, Ethnicity and BMI.

-- End of Report --

A handwritten signature in black ink, appearing to read "K. Ghosh".

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