

Dated:

THEORY TEACHING PROGRAMME OF PG-DMLT COURSE**FOR THE YEAR 2020-23 BATCH STUDENTS**

ON EVERY WEDNESDAY:- 11.00 a.m. TO 12.00 noon

Sr No	TOPIC	TEACHER	NO. OF LECTURE
1 ✓	Introduction and Basic Concepts of Biochemistry Role of Technician In the Lab. Importance of Clinical Biochemistry in Medical Field	Dr. Suryawanshi	1
2 ✓	Carbohydrate Chemistry- Definition, Classification, Functions, Properties, Osazone formation.	Dr. Deshpande	2
3	Lipid Chemistry- Definition, Classification, Functions of Lipids and Lipoproteins.	Dr. Deshpande	2
4 ✓	Proteins And Amino Acid Chemistry- Definition, Classification, Function, Chemical reactions of Proteins & Amino acids.	Dr. Mahajan	2
5 ✓	Nucleic acids Chemistry- Definition, Types, Functions	Dr. Vijay Bhalavi	1
6 ✓	Enzymes- Definitions, Classification, Factors affecting enzyme action, Inhibition, Diagnostic importance of enzymes and isoenzyme.	Dr. Seema S	2
7 ✓	Mineral Metabolism- Functions and metabolism of Calcium, Phosphorous, Sodium, Potassium, Iodine and Iron	Dr. Vijay Bhalavi	2
8 ✓	Acid Base balance- Definition & Importance of Blood PH and its maintenance by buffers, Respiratory and renal mechanism, acidosis and Alkalosis (in brief)	Dr. Vijay Bhalavi	2
9 ✓	Carbohydrate Metabolism- Glycolysis, Kerbs cycle Glycogenesis, Glycogenesis, Gluconeogenesis, Coris cycle, Blood glucose regulation, Glycosuria, Glucose tolerance tests	Dr. Deepa	3
10	Lipid Metabolism- Definition and importance of beta oxidation of fatty acids, Functions & Clinical importance of Triacylglycerol, Phospholipids and cholesterol. Lipid Profile and its importance	Dr. Deepali	3
11 ✓	Protein Metabolism- Determination and Transamination, Urea formation, Creatine metabolism	Dr. Mahavir	2
12 ✓	Blood- Composition, Functions and separation of plasma proteins, Blood coagulation. Chemistry & functions of haemoglobin including Porphyrin & Bilirubin metabolism	Dr. Munghare Komal	2
13 ✓	LFT	Dr. Priya	1
14 ✓	KFT, TFT	Dr. Augustiya	1
15 ✓	Analytical instruments & techniques- Principle, types, uses, care & maintenance of (a) Photoelectric colorimeter, Spectrophotometer, Flame photometer. (b) Chromatography (c) Electrophoresis	Dr. Shivani	1
16 ✓	Automation in Clinical Biochemistry- Principle, types, uses of Autoanalyzer & role of computer in laboratory.	Dr. Nadia	1
17 ✓	Metabolic disorders- Diabetes Mellitus & Atherosclerosis	Dr. Shradha Kishor	1

Professor & Head

Department of Biochemistry

Govt. Medical College, Nagpur

- 1) Circulate to All above staff
- 2) Dr Vijay Bhalavi, PGDMLT Incharge
- 3) Notice Board

PRACTICAL TEACHING PROGRAMME OF PG DMLT COURSE FOR YEAR 2020-23
BATCH STUDENTS

ON EVERY FRIDAY

TIME 12 PM – 1 PM

SR NO	PRACTICAL	TEACHER	NO. OF CLASS
1 ✓	Specimen collection: Whole blood, plasma, serum, urine, C.S.F & other body fluids, preservation of specimens, anticoagulants	DR NADIA	1
2 ✓	Laboratory management and planning: Reception and recording of specimens, Maintenance of laboratory records, Reporting	DR BARAPATRE	1
3 ✓	Quality Control: Role of quality control and its importance Accuracy, Reliability, Precision Internal and external quality control measure, preparation of reagents, Standardization of methods, safety measures and precautions	DR GADPAL	2
4 ✓	Basic Laboratory equipment's: Types, use, care and maintenance of following equipment: Ovens, Incubators, Refrigerators, Deep freezer, Centrifuges, Waterbaths, Water Distillation, Analytical Balances, microscopes	DR R JADHAV	2
5 ✓	Glassware's: Types, use, care and maintenance of Flasks, Pipettes, Cylinders, funnels Tubes, Thermometers	DR KISHOR	1
6 ✓	Analytical instruments: Principles, types, use, care and maintenance of photoelectric colorimeters, spectrophotometers, Flame Photometers, pH meter	Dr Vijay Bhalavi	1
7 ✓	Techniques: Chromatography, Electrophoresis, Elisa and RIA, isotopes	DR NADIA	1
8	Preparation and standardization of Blood Glucose (GOD-POD) Estimation & Glucose Tolerance Tests	DR Deepali	1
9	Preparation and standardization of Serum Urea (Berthlot) Estimation	DR Mahavir	1
10	Preparation and standardization of Serum Creatinine (Jaffe's) Estimation	DR Priya	1
11 ✓	Preparation and standardization of Serum Total Protein (Biuret)& albumin (BCG) Estimation (A/G ratio)	Dr Vijay Bhalavi	1
12	Preparation and standardization of Serum Uric Acid	DR Shivani	1
13 ✓	Preparation and standardization of SGPT&SGOT	DR NADIA	1
14 ✓	Preparation and standardization of Alkaline Phosphatase	DR Priya	1
15 ✓	Serum Cholesterol and HDL Cholesterol estimation	DR Mahavir	1
16	Serum Triglyceride & Lipid Profile estimation	DR SOLANKI	1
17 ✓	Serum Bilirubin	Dr Vijay Bhalavi	1
18 ✓	Serum Calcium and Phosphorus estimation	<i>Dr Shivani</i> DR DESHPANDE	1
19	CSF-Glucose, Proteins and Chloride estimation	<i>Dr mahavir</i> DR GADPAL	1
20	Urine analysis and Complete Urine Report	DR NINGHOT	2
21	Estimation of serum sodium & potassium	DR Shraddha	1
22	Estimation of serum amylase	DR SOLANKI	1 ✓
23	Estimation of Acid phosphatase	DR SHIVANI	1
24	Spotting	DR SHRADDHA	1