

Government Degree College Baramulla

SEMESTER: 1ST

SKILL ENHANCEMENT COURSE

Subject: Clinical Biochemistry

Title: Fundamentals of Medical Lab Technology

Course Code: BCB22S102

CREDIT: (2+2) THEORY: 02; PRACTICAL: 02

(Contact hours 32 T +32 L)

Learning Objectives: On the completion of course the student should

- *Understand the basic laboratory principles and comply with laboratory safety regulations*
- *Understand the different clinical laboratory setting and role in health care organization*

Learning Outcome: On the completion of course the student should

- *Evaluate quality control data according to laboratory*
- *Be able to collect and preserve biological specimens*

UNIT 1: Introduction to Clinical laboratory

(16 Contact hours)

Basic laboratory principles - Code of conduct of medical laboratory personnel. Organization of Clinical laboratory and role of medical laboratory technician, Safety measures - Clinic borne infection and personnel hygiene

UNIT II: Collection of Specimen

(16 Contact hours)

Requirement of Blood Collection - Blood collection - Phlebotomy - Sampling errors - Collection and preservation of biological fluids - Anticoagulants - Preservation of samples - Chemical preservatives - Process of analysing the specimens - The laboratory report.

Practical:

(32 Contact hours)

1. Handling common laboratory equipments
2. Collection of blood specimen: Tourniquet application, Venipuncture, skin puncture
3. Demonstration of handling and use of different blood collection tubes
4. Separation of serum and plasma from blood

Suggested readings:

1. Harold Varley, Practical Clinical Biochemistry, CBS. 10th edition, 2018
2. Gradwohls, 2000. Clinical laboratory methods and diagnosis. (ed) Ales C. Sonnenwirth and Leonard Jarret, M.D.B.I., New Delhi.
3. Kanai L. Mukherjee, 2007, Medical laboratory technology Vol.1. Tata McGraw Hill
4. Ramanic Sood, Laboratory Technology (Methods and interpretation) 4th Ed. J.P. Bros, New Delhi