

Bankura Christian College

Department of Physiology

2nd YEAR: SEMESTER-III (Academic Session: 2023-24)

Course Code: SH/PHY/305/SEC-1

Course ID: 32525

Credit- 02; Full Marks: 50

Classes: 07(Lecture)+07(Class test/Revision)

Course Title: Haematological Technique Lab

Dr. Rajkumar Maiti

Course Learning Outcomes:

1. They acquire their skill for measurement of hemoglobin percentage and determination of haematocrit, MCV, MCH, MCHC, bleeding time and clotting time.
2. Learner will fortify their skill on estimation of urea and creatinine in serum sample along with estimation of blood sugar level.

Topics allotted

1. Measurement of hemoglobin (Cyanmethemoglobin method) in blood.
2. Preparation of serum.
3. Estimation of serum urea and creatinine by using kit.
4. Blood sugar estimation By Nelson-Somogyi method.
5. Osmotic fragility test.
6. Quantification of serum total protein by Biuret method.

MONTH/YEAR	WEEK	PORTIONS
August 2023	3	Measurement of hemoglobin in blood by Cyanmethemoglobin method.
	4	Revision for Measurement of hemoglobin in blood by Cyanmethemoglobin method.
	5	Preparation of serum from venous blood with the help of centrifuge machine
MONTH/YEAR	WEEK	PORTIONS
September 2023	1	Estimation of serum urea using diagnostic kit
	2	Revision for estimation of serum urea using diagnostic kit
	3	Estimation of serum creatinine using diagnostic kit
	4	Estimation of blood sugar by Nelson-Somogyi method
MONTH/YEAR	WEEK	PORTIONS
October 2023	1	Revision for estimation of blood sugar by Nelson-Somogyi method
	2	Osmotic fragility test by Dacie's method
MONTH/YEAR	WEEK	PORTIONS
November 2023	1	Revision for osmotic fragility test by Dacie's method
	2	Quantification estimation of serum total protein by Biuret method.
	3	Revision for quantification of serum total protein by Biuret method.
	4	Class test for practical on Haematological Technique Lab
MONTH/YEAR	WEEK	PORTIONS
December 2023	1	Discussion regarding entire syllabus and prepare for viva-voce in practical Examination

- Suggested Books**
1. Pal, G.K. Pal, P. (2013). Textbook of Practical Physiology. Third Edition. Universities. Shepherd. G.M. Neurobiology. Oxford University Press.
 2. Note Books on Histology. Published by The Physiological Society of India. Kolkata
 3. Ghai, C.L. A Text Book of Practical Physiology. 8th Edition. Jaypee.
 4. Mukherjee, K.L. (2004). Medical Laboratory Technology. Vol. I, Vol. II and Vol. III. Tata McGraw-Hill.
 5. Godkar P.B. and Godkar P.D. (2018). Textbook of Medical Laboratory Technology Clinical Laboratory Science and Molecular Diagnosis, 3rd Edition. Bhalani Publishing House.

Rajkumar Maiti