CORE PRACTICAL III

ESTIMATION OF BIOMOLECULES AND MICROBIAL TECHNIQUES

Sem	Sub. Code	Category	Lecture		Theory		Practical		Credits
			Hrs/ week	Hrs/ sem.	Hrs/ week	Hrs/ sem.	Hrs/ week	Hrs/ sem.	
II	21CPBC23	Core Practical	-	-	-	-	5	60	5

A. Estimation of biomolecules from animal and plant sources

1. Estimation of DNA using DPA
2. Estimation of RNA using orcinol reagent.
3. Estimation of sugar by Anthrone method.
4. Estimation of proteins using Bradford method.
5. Estimation of chlorophyll in leaves.
6. Estimation of magnesium from leaves/fruit
7. Estimation of Vitamin C from fruit juice by titration methods.
8. Separation of Lecithin from egg yolk by TLC

B. Phytochemical Analysis.

1. Herbal extraction by cold and hot maceration.
2. Qualitative analysis of phytochemicals by standard method.
3. Invitro antioxidant studies of plant extract by DPPH, hydroxyl radical and hydrogen peroxide activity.

C. Microbial Techniques

1. Sterilization techniques - Principles, methods - moist heat, dry heat.

2. Preparation of culture media- liquid -Nutrient Broth, solid -Nutrient Agar.
3. Nutrient Agar- plate, slant, deep.
4. Pure culture techniques – streaking and pour plate techniques.
5. Staining techniques – Simple and differential (Gram's staining).

REFERENCE BOOKS:

S.No	Author Name	Title of the Book	Publisher	Year
1.	S.K.Sawhney	Introduction to Practical Biochemistry	Alpha science international Ltd	2nd edition (2005)
2.	A. Sadasivam and A.Manickam	Biochemical techniques	New age international publisher	2003
3.	J. Jayaraman	Laboratory manual in biochemistry	Wiley Eastern	1981
4.	H. Varley	Practical Clinical Biochemistry	Wiley Eastern	1981
5.	N. Kannan	Laboratory Manual in General Microbiology	Panima Publishing Corporation	2002

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