Dr. K. J. Bhatt

PC - BOT - 222

(Angiosperm Embryology, Biochemistry, Plant Physiology)

Date
Page

Sr. No.	Name of Experiment	Page No.
(*)	Angiosperm Embryology	45
1.	Embryo: Study of Embryo from Chenmis and Mustard & Make temporary slide.	45
2.	Microsporogenesis: Study of Anther through Aceto carmine / Aceto orcene squash technique in following plants: Aloe, convolvulus and onion	46
3	Study through Permenent slide / chart / Microphotograph etc.	
(a)	Microsporogenesis	47
(b)	Megasporogenesis	48
(c)	Types and structure of ovule	49-50
4	Study through chart / Microphotograph ect.	
(d)	Structure of Mature Embryosac.	51
(e)	Endosperm & Types of Endosperm	52 to 55
(*)	Biochemistry:	
5	(i) To determine isoelectric point of casein (Protein)	56
	(ii) Estimation of free fatty acids by titration method:	

Sr. No.	Name of Experiment	Page No.
6	Bio: Molecules: (I)	57
	Test for detection of carbohydrates: The following Test are to be performed to detect the nature of carbohydrates available in the supplied sample (Glucose, Fructose, Maltose, Sucrose, and starch)	
	(1) Molisch's test	
	(2) Benedict's test	
	(3) Barfoed's test	
	(4) Seliwan off test	
	(5) Iodine test	
	(6) Cobalt chloride test	
7	Bio: Molecules (II)	58
	Test for detection of: i.e. fat and oils: Microchemical test on sections of plant materials Sudan III stain, Solubility test	
8	Bio: Molecules (III)	59
	Test for detections of proteins: Biuret test, Xanthopatic test	
*	Plant Physiology	
9	The following physiology experiment are to be performed by students:	
	(1) To show the phenomenon of Ascent of sap.	60
	(2) To show unequal transpiration from the leaf surface using cobalt chloride papers.	61
	(3) To show four leaf experiment for process of transpiration.	62

Sr. No.	Name of Experiment	Page No.
10	The following physiological experiment are to be demonstrated to the students:	
	1) Demonstration of path of water through xylem by Ringing experiment.	63
	2) Demonstration of transpiration by Bell-jar method.	64
	3) Demonstration the rate of leaf using Garreau's Apparatus.	65
	4) Demonstration of rate of transpiration using Gamong's potometer.	66
	5) Demonstration of rate transpiration using farmer's photometer	67
	6) To determine the amount of water absorbed and transpired by a plant.	68