SAPTHAGIRI College of Engineering Creating Tommorow

(Affiliated to Visvesvaraya Technological University, Belagavi & Approved by AICTE, New Delhi.)

DEPARTMENT OF BIOTECHNOLOGY

INTERNAL ASSESTMENT PAPER

INTERNAL TEST : I	**ACADEMIC YEAR : ODD/2017-2018**	
SUB : PLANT BIOTECHNOLOGY	**SUB-CODE : 15BT73**	**SEM & SECTION : VII**
DATE : 20/9/2018	**TIME : 9-10:30AM DUR : 1.5 H**	**MAX MARKS: 30**
STAFF-INCHARGE : Prof SHOBHA G		

Answer any two full questions choosing one from each Module
(Each full question carries 15 marks)

Main Question	Sub Question	Full Question	Marks	Bloom's Taxonomy Level	Course Outcomes Mapped
		Module			
1	a	Illustrate the process of protoplast culture	7.5	L1, L 2, L3	CO - 1
	b	Give an account of the basic constituents of plant tissue culture media. Add a note on the enrichment of the media by adjuvents.	7.5	L1, L 2, L3	CO - 1
		OR			
2	a.	How haploid plants are produced by Androgenesis culture? Note on its applications.	7.5	L1, L 2, L3	CO - 1
	b	Explain the process by which plant material can be stored for longer duration	7.5	L1, L 2, L3	CO - 1
		Module			
3	a	Describe the techniques used for gene transfer in plant any two method	7.5	L1, L 2, L3	CO - 1
	b	Explain the Types of plant vectors and their use	7.5	L1, L 2, L3	CO - 1
		OR			
4	a	Describe the Agrobacterium mediated transformation for creation of transgenic plant	7.5	L1, L 2, L3	CO - 1
	b	What are somatic embryos? Explain the protocol for large scale production of somatic embryos?	7.5	L1, L 2, L3	CO - 1

CO: 1. State the basic concepts of Plant tissue culture and their applications, media preparation, tools of genetic engineering in producing transgenic plant.

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DEPARTMENT OF BIOTECHNOLOGY

INTERNAL ASSESTMENT PAPER

INTERNAL TEST : II	**ACADEMIC YEAR : EVEN /2018-2019**		
SUB : ENZYME TECHNOLOGY AND BIOTRANSFORMATION	**SUB-CODE : 15BT63**		**SEM & SECTION : VI**
DATE : 16/4/18	**TIME : 10.45 - 12:15 AM**	**DUR : 1Hr 30 min**	**MAX MARKS: 30**
STAFF-INCHARGE : Prof SHOBHA G			

Answer any two full questions choosing one from each Module
(Each full question carries 15 marks)

Main Question	Sub Question	Full Question	Marks	Bloom's Taxonomy Level	Course Outcomes Mapped
		Module			
1	a	How are L-amino acids and aspartame prepared in bioreactor using immobilized technique?	7.5	L2, L3, L4	CO - 3
	b	How the optimization can be carried out for maximum enzyme activity (any two factor).	7.5	L2, L3, L4	CO - 3
		OR			
2	a	With two examples explain Enzyme and isoenzyme measurement methods	7.5	L2, L3, L4	CO - 3
	b	Describe enzyme immobilization of covalent method and crosslinking method	7.5	L2, L3, L4	CO - 3
		Module			
3	a	Explain the method involved in production of glucose and maltose syrups from starch using hydrolytic enzymes.	7.5	L1, L2, L3	CO 5
	b	Explain the role of enzyme in detergents	7.5	L1, L2, L3	CO 5
		OR			
4	a	Describe the role of enzymes in leather industry	7.5	L1, L2, L3	CO 5
	b	Explain role of protease in food industry	7.5	L1, L2, L3	CO 5

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DEPARTMENT OF BIOTECHNOLOGY

INTERNAL ASSESTMENT PAPER

INTERNAL TEST : III	**ACADEMIC YEAR : EVEN /2018-2019**		
SUB : ENZYME TECHNOLOGY AND BIOTRANSFORMATION	**SUB-CODE : 15BT63**		**SEM & SECTION : VI**
DATE : 17/5/19	**TIME : 10.45 - 12:15 AM**	**DUR : 1Hr 30 min**	**MAX MARKS: 30**
STAFF-INCHARGE : Prof SHOBHA G			

Answer any two full questions choosing one from each Module
(Each full question carries 15 marks)

Main Question	Sub Question	Full Question	Marks	Bloom's Taxonomy Level	Course Outcomes Mapped
		Module			
1	a	Describe catalytic antibodies	7.5	L2	CO - 4
	b	Explain the synthesis of enzyme using steroid as a template	7.5	L1	CO - 4
		OR			
2	a	Note on extremozymes	7.5	L2	CO - 4
	b	Describe biocatalysts from extreme Thermophilic microorganisms	7.5	L2	CO - 4
		Module			
3	a	Describe the role of microorganism in transformation of steriods	7.5	L2	CO - 4
	b	Explain Host Guest Complexation chemistry	7.5	L2	CO - 4
		OR			
4	a	Explain Peptide Synthesis by enzymatic approach	7.5	L1	CO - 4
	b	Note on artificial enzymes	7.5	L1	CO - 4

CO – 4 To Comprehend the applications of nonconventional media in enzyme catalysis and design the methods for the creation of novel enzymes and biotransformation of drugs

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DEPARTMENT OF BIOTECHNOLOGY

INTERNAL ASSESTMENT PAPER

INTERNAL TEST : I	ACADEMIC YEAR : EVEN /2018-2019		
SUB : CLINICAL BIOCHEMISTRY	SUB-CODE : 17BT46		SEM & SECTION : IV
DATE : 13-3-19	TIME : 1:00-2:30pm	DUR : 1Hr 30 min	MAX MARKS: 30
STAFF-INCHARGE : Prof SHOBHA G			

Answer any two full questions choosing one from each Module
(Each full question carries 15 marks)

Main Question	Sub Question	Full Question	Marks	Bloom's Taxonomy Level	Course Outcomes Mapped
		Module -1			
1	a	Diagnostic tests for cardiovascular disease based on lipid profile	7.5	L2	CO-1
	b	Write a note on hypoglycemia.	7.5	L1	CO-1
		OR			
2	a.	How are serum lipoproteins classified by ultracentrifugation. Give their functions.	7.5	L2	CO-1
	b	Lab findings in Galactosemia	7.5	L2	CO-1
		Module -2			
3	a	Explain Multiple sclerosis	7.5	L2	CO-1
	b	What are the features of a Normal Glucose Tolerance Curve?	7.5	L1	CO-1
		OR			
4	a	Explain one lipid storage disorders	7.5	L2	CO-1
	b	Describe the role of the clinical laboratory in the diagnosis and management of diabetes mellitus. What are the biochemical causes of the chronic complications seen in the condition?	7.5	L2	CO-1

CO: 1 Discuss the biochemistry and pathophysiology associated with various disorders of metabolism and inborn errors of metabolism.

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INTERNAL ASSESTMENT PAPER

INTERNAL TEST : II	**ACADEMIC YEAR : ODD/2017-2018**		
SUB : PLANT BIOTECHNOLOGY	**SUB-CODE : 15BT73**		**SEM & SECTION : VII**
DATE : 23/10/2018 DAY : TUESDAY	**TIME : 9.00AM – 10.30 AM AM**	**DUR : 1.5 Hr**	**MAX MARKS: 30**
STAFF-INCHARGE : Prof SHOBHA G			

Answer any two full questions choosing one from each Module
(Each full question carries 15 marks)

Main Question	Sub Question	Full Question	Marks	Bloom's Taxonomy Level	Course Outcomes Mapped
		Module			
1	a	Construct a fungal resistance transgenic plant	7.5	L 2, L3, L4	CO – 2
	b	Explain the bt gene with mechanism of action	7.5	L 2, L3, L4	CO – 2
		OR			
2	a.	Construct a drought and salinity resistance transgenic plant	7.5	L 2, L3, L4	CO – 2
	b	Explain Non-bt like protease inhibitor and amylase inhibitor	7.5	L 2, L3, L4	CO – 2
		Module			
3	a	Describe the steps involved in mass production of cyanobacteria as Biofertilizers	7.5	L1, L 2, L3	CO – 5
	b	Discuss the process involved in production of alginate from macro algae	7.5	L1, L 2, L3	CO – 5
		OR			
4	a	Describe the steps involved in mass production of SCP	7.5	L1, L 2, L3	CO – 5
	b	Discuss the process involved in production of agar-agar from macro algae	7.5	L1, L 2, L3	CO – 5

CO –2: State the applications of plant genetic engineering in production transgenic plants to with stand abiotic and biotic stress and discuss ethical and social issues regarding genetically-modified crops

CO-5: Acquaint with principles, technical requirement, scientific and commercial applications in algal technologies with suitable examples

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INTERNAL ASSESTMENT PAPER

INTERNAL TEST : III	ACADEMIC YEAR : ODD/2017-2018		
SUB : PLANT BIOTECHNOLOGY	SUB-CODE : 15BT73		SEM & SECTION : VII
DATE : 23/11/2018 THRUSDAY	TIME : 9:00-10:30 AM	DUR : 1.5 H	MAX MARKS: 30
STAFF-INCHARGE : Prof SHOBHA G			

Answer any two full questions choosing one from each Module
(Each full question carries 15 marks)

Main Question	Sub Question	Full Question	Marks	Bloom's Taxonomy Level	Course Outcomes Mapped
		Module -III			
1	a	Explain herbicide resistance with respect to glyphosate	7.5	L2	CO - 3
	b	Define Molecular farming? Add a note on production of industrial enzyme?	7.5	L 2	CO - 3
		OR			
2	a.	Illustrate the production of polyhydroxy butyrate?	7.5	L3	CO - 3
	b	Discuss the production of biodegradable plastic?	7.5	L3	CO - 3
		Module- IV			
3	a	Explain mechanism of signal transduction in plant?	7.5	L2	CO - 4
	b	Describe two complementary System?	7.5	L3	CO - 4
		OR			
4	a	Discuss on molecular mechanism of giberllin?	7.5	L3	CO - 4
	b	Explain genetic engineering of nif genes?	7.5	L2	CO - 4

CO-3: Describe the role, importance & applications of tissue culture in molecular farming

CO-4: Explain the mechanism of signal transduction and nitrogen fixation in plants

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