

CBBCS SCHEME

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BBOK407

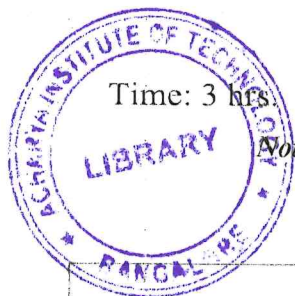
Fourth Semester B.E./B.Tech. Degree Examination, June/July 2026

Biology for Engineers

Time: 3 hrs

Max. Marks: 100

Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.
2. M : Marks , L: Bloom's level , C: Course outcomes.



Module – 1			M	L	C
Q.1	a.	Explain the structure and functions of a cell.	10	L2	CO1
	b.	Identify the differences between Prokaryotic and Eukaryotic cells.	10	L3	CO1
OR					
Q.2	a.	Explain the properties and functions of carbohydrates.	10	L2	CO1
	b.	Identify the applications of stem cells.	10	L3	CO1
Module – 2					
Q.3	a.	Explain the working and development of DNA vaccine for Rabis.	10	L2	CO2
	b.	Justify cellulose as an effective water filter.	10	L3	CO1
OR					
Q.4	a.	Explain the development of RNA vaccines for Covid.	10	L2	CO2
	b.	Illustrate the properties and applications of PHA as bioplastic.	10	L3	CO1
Module – 3					
Q.5	a.	Justify the working of eye as a camera system.	10	L3	CO2
	b.	Explain Brain as a CPU system.	10	L2	CO2
OR					
Q.6	a.	Justify the working of heart as a pumping system.	10	L3	CO2
	b.	Explain the working of Lung as purification system.	10	L2	CO2
1 of 2					

Module – 4

Q.7	a.	Explain Echolocation. Discuss the application of echolocation in ultrasonography.	10	L2	CO3
	b.	The structure and design of Kingfisher beak led to the design of bullet train. Justify.	10	L3	CO3

OR

Q.8	a.	What is Bionic Leaf? Discuss the mechanism of Bionic Leaf.	10	L2	CO3
	b.	Inspiration derived from the mechanism of birds flight led to the discovery of aircraft. Justify.	10	L3	CO3

Module – 5

Q.9	a.	Explain the different bio printing techniques and materials.	10	L2	CO4
	b.	Discuss about how electrical tongue and electrical nose used in food science.	10	L2	CO4

OR

Q.10	a.	Explain the process involved in self healing bioconcrete.	10	L2	CO4
	b.	Discuss the process of DNA origami and biocomputing.	10	L2	CO4

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