



Department of Artificial Intelligence and Machine Learning

Subject Name: Biology for Computer Engineers

Subject Code: BBOC407

SEM :4th

DIV : A

Faculty : Mrs. Lavanya

Module-1 Question Bank

SI NO	Question	CO	Level	Marks
1	Explain the properties and functions of Proteins and Nucleic acids	01	L2	10
2	What are hormones, mention their classification and explain their general functions and properties	01	L2	10
3	Give comparison between Prokaryotic and Eukaryotic cells	01	L1	05
4	Explain different types of vitamins and give their significance	01	L1	10
5	What are stem cells, explain their applications in detail	01	L2	10
6	Explain the properties of Enzymes,.	01	L2	05
7	Explain the properties and functions of Proteins and Nucleic acids	01	L2	10
8	What are stem cells, explain their applications in detail	01	L2	10
9	Explain different types of vitamins	01	L2	05
10	Explain the properties and functions of Carbohydrates and Lipids	01	L2	10

Module-2 Question Bank

SI No	Question	CO	Level	Marks
1	Explain how DNA is used in preparation of Rabies vaccine with neat diagram.	01	L2	10
2	What are the key Characteristics, advantages and limitations of cellulose-based water filters.	01	L2	10
3	Write short notes on Meat Analogues and plant based proteins.	01	L2	05
4	What are Nucleic Acids ? explain the role of DNA in genetic Fingerprinting with neat diagrams.	01	L1	10
5	Explain the role of carbohydrates(PLAs and PHAs) in bioplastics briefly with necessary diagram.	01	L2	10
6	Explain how RNA is used in the manufacturing of COVID-19 Vaccine.	01	L2	05
7	What are the key Characteristics, advantages and limitations of cellulose-based water filters.	01	L1	10
8	Write a short notes on Nucleic acid mentioning its types and Explain how DNA is used in preparation of Rabies vaccine with neat diagram.	01	L2	10



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9	Write short notes on Proteins as Food illustrating its significance	01	L1	05
10	Explain the industrial application of Cellulose based water filter	01	L1	10

Module-3 Question Bank

Sl No	Question	CO	Level	Marks
1	Brain functions as a CPU system. Justify	03	L2	10
2	What are stents? Give an account on the stent design and materials used for the manufacturer of stents.	03	L1	10
3	Give an account on the characteristics and features of cataract.	03	L2	05
4	With a neat diagram of neuron explain the process of signal transmission.	03	L2	10
5	Give an account on the structure and functioning of kidneys.	03	L2	10
6	Write a short note on Heart Lung machine.	03	L1	05
7	Eye functions as a Camera system. Justify	03	L2	10
8	What is a lotus leaf effect? Explain the mechanism and applications of lotus leaf effect.	03	L2	10
9	Write a short note on chronic obstructive pulmonary disease	03	L2	05
10	What are the reasons for the blockage of Blood vessels.	03	L2	10
11	Lungs are an effective purification system. Justify the statement highlighting the functioning of the lungs.	03	L2	10
12	Write a short note on Pace makers.	03	L1	05

Module-4 Question Bank

Sl No	Question	CO	Level	Marks
1	Give an account on the various blood substitutes.	04	L2	10
2	Inspiration derived from the mechanism of birds flight led to the discovery of aircraft. Justify	04	L2	10
3	Write a short note on Shark skin.	04	L1	05
4	Compare the process of photosynthesis to the functioning of photovoltaic cells.	04	L2	10
5	What is echolocation? Discuss the application of echolocation in ultra sonography.	04	L2	10
6	Write a short note on GPS system existing in birds.	04	L1	05
7	The structure and design of the Kingfisher's beak led to the design of the bullet trains. Explain.	04	L2	10
8	Write a note on Haemoglobin based oxygen carriers.	04	L1	10
9	Write a short note on Velcro.	04	L1	05
10	Define the process of Photosynthesis in a Bionic leaf.	04	L2	10
11	Explain the experiment conducted by Prof, Dickman and colleagues on GPS systems existing in pigeons.	04	L2	10
12	Write a short note on Perfluorocarbons.	04	L1	05



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Module-5 Question Bank

Sl No	Question	CO	Level	Marks
1	Write a note on bio printing techniques and materials	04	L1	10
2	Write a note i. Self healing bio concrete ii. Bioremediation	04	L2	10
3	Explain the role of Bio-imaging and AI in disease diagnosis	04	L3	10
4	Explain the mechanism and bioengineering solutions for muscular dystrophy and osteoporosis.	04	L2	10
5	Write a note on Biomining via microbial surface adsorption.	04	L2	10
6	Write a note on 3D printing of Ear, Skin and Bone.	04	L2	10
7	Explain the role of Electrical tongue and nose in food sciences.	04	L2	10
8	Write a note on 3D printed foods.	04	L2	10

Faculty Signature