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Odd Semester Examination 2024 (B.Tech. CSE (AI) 7th semester / Lateral entry)
 Paper Name: AI in Biology Paper Code: BTCSE AI 702/ BTCSE (AI) 702 LE
 Time: 3 Hours Maximum Marks: 75

Section A (Attempt all questions; 5x7 = 35 Marks)

Q. No.	Questions	Marks	CO	BL
1.	What is telemedicine? What are the applications and technologies used in telemedicine?	5	3	4
2.	What are genes? Describe their architecture. Can more than one gene be responsible for a single trait?	5	3	4
3.	What is the Chromosomal Theory of Inheritance?	5	2	4
4.	What are EEG and ECG signals? Give a short description of both.	5	4	4
5.	What are the basic modalities and the principles of imaging?	5	4	3
6.	What are Image segmentation and Feature Extraction?	5	5	4
7.	Give a short description of DNA structure and function.	5	5	3

Section B (Attempt any four; 10x4 = 40 Marks)

Q. No	Questions	Marks	CO	BL
1	What are different theories on the origin of life on earth, explain any two of them in detail.	10	1	3
2	Define central dogma, and explain the process of DNA replication in detail.	10	5	4
3	What are the characteristics of ECG signals? How waves (PQRST and U) are formed in ECG?	10	4	4
4	What is an MRI? Explain working principle of MRI and explain under what conditions MRI is recommended?	10	3	4
5	What technology is used in telemedicine and explain the future of telemedicine after COVID-19?	10	2	4
6	What are Mendel's 3 laws of inheritance? Explain it with diagrams.	10	2	5