CLASS: BTECH   SEMESTER : VII
BRANCH: BIOTECHNOLOGY   SESSION : MO/2022

SUBJECT: BE331 ADVANCED ALGORITHM TECHNIQUES AND COMMUNICATION
TIME: 03 Hours   FULL MARKS: 50

INSTRUCTIONS:
1. The question paper contains 5 questions each of 10 marks and total 50 marks.
2. Attempt all questions.
3. The missing data, if any, may be assumed suitably.
4. **Tables/Data handbook/Graph paper etc., if applicable, will be supplied to the candidates**

Q.1(a)	Compare A, B, Z type DNA.	[2]
Q.1(b)	Compare prokaryotic and eukaryotic gene structure with diagram.	[3]
Q.1(c)	Describe motif discovery steps with alignment based and alignment free method.	[5]
Q.2(a)	State the basic principle of MEME software.	[2]
Q.2(b)	With an example describe process diagram of Markov model.	[3]
Q.2(c)	Describe Bayesian network with an application. What are the conditions of developing the model.	**[5]**
Q.3(a)	What is suffix tree?	[2]
Q.3(b)	What is supervised learning process?	[3]
Q.3(c)	How biological neural network helps in designing ANN for disease prediction?	[5]
Q.4(a)	What is active server page?	[2]
Q.4(b)	How HTML is helpful in webpage designing?	[3]
Q.4(c)	Draw 7 layer of ISO-OSI Model. State the importance of network layer.	[5]
Q.5(a)	Compare bus and star topology.	[2]
Q.5(b)	What is VPN technology?	[3]
Q.5(c)	With diagram describe about DSL and its advantages.	[5]

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