B.E. (Information Technology) Seventh Semester (C.B.S.)

Elective - I : Bio-Informatics

P. Pages : 1 **NRJ/KW/17/4642**

Time : Three Hours * 0 4 8 0 * Max. Marks : 80

Notes : 1. All questions carry marks as indicated.
2. Solve Question 1 OR Questions No. 2.
3. Solve Question 3 OR Questions No. 4.
4. Solve Question 5 OR Questions No. 6.
5. Solve Question 7 OR Questions No. 8.
6. Solve Question 9 OR Questions No. 10.
7. Solve Question 11 OR Questions No. 12.
8. Illustrate your answers whenever necessary with the help of neat sketches.

1.	a)	What is Bio-Informatics? State its objectives.	**7**
	b)	Explain the interdisciplinary nature of Bio-informatics.	**6**
		OR	
2.	a)	What skills should bioinformatician have?	**6**
	b)	Write a note on reference systems for metadata.	**7**
3.	a)	With a suitable diagram explain replication of one strand of the DNA Helix.	**10**
	b)	Write a note on Transcription of DNA.	**4**
		OR	
4.	a)	Explain translation of mRNA into protein.	**7**
	b)	State various problems in molecular approach and the bioinformatics approach.	**7**
5.	a)	Explain the structure of RNA with suitable diagram.	**7**
	b)	How DNA replication takes place?	**6**
		OR	
6.	a)	How DNA sequencing takes place?	**7**
	b)	Write a note on protein folding and its importance.	**6**
7.	a)	What are the strengths of Perl programming Language?	**6**
	b)	Explain parsing BLAST output using Perl.	**7**
		OR	
8.	a)	Write a note on Bioperl.	**7**
	b)	Explain important features of Linux operating system.	**6**
9.	a)	Explain the importance of controlled vocabularies.	**7**
	b)	Write a note on CORBA Architecture.	**7**
		OR	
10.	a)	What is single nucleotide polymorphism.	**7**
	b)	Explain Biological data warehouses.	**7**
11.	a)	How the graphical models are used to identify patterns?	**7**
	b)	Write a note on macro molecular structures.	**6**
		OR	
12.	a)	In short explain macromolecular structures.	**6**
	b)	State the significance of Generic variability.	**7**

****