



K19U 0151

Reg. No.: .....

Name: .....

**VI Semester B.Sc. Degree (CBCSS-Reg./Supple./Improv.)**

**Examination, April 2019**

**(2014 Admission Onwards)**

**CORE COURSE IN ZOOLOGY**

**6B10 ZLG : Molecular Biology and Bioinformatics**

Time : 3 Hours

Max. Marks : 40

**Instruction :** Answer may be written either **English** or **Malayalam** : Give illustrations where ever necessary.

**SECTION – A**  
**(Molecular Biology)**

I. Answer any one :

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- 1) Explain the various processes involved in protein synthesis.
- 2) Describe any two experiments to prove that DNA is the genetic material.

II. Answer any one :

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- 3) Explain Genetic engineering.
- 4) Write short note on Genetic Code.

III. Answer any three :

(3×2=6)

- 5) Lytic and lysogeny Cycle.
- 6) DNA repair.
- 7) Cistron and Muton.
- 8) Reverse transcription.
- 9) Mitochondrial Genome.

IV. Answer two of the following :

(2×1=2)

- 10) Non sense codon is  
a) UAA                      b) AUG                      c) UUU                      d) CGA
- 11) Which is called precursor of m RNA ?  
a) hn RNA                      b) sn RNA  
c) soluble RNA                      d) Both a and c
- 12) The process of formation of m RNA from DNA is called  
a) Translation                      b) Transcription  
c) Reverse transcription                      d) None of these
- 13) Number of hydrogen bonds between guanine and cytosine  
a) 4                      b) 3                      c) 2                      d) 1

P.T.O.



**SECTION – B**  
**(Informatics and Bioinformatics)**

V. Answer **any one** :

- 14) Explain various Data Base Search engines.
- 15) Describe on DNA sequencing and its applications.

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VI. Answer **any one** :

- 16) Make a detailed note on metabolite data bases.
- 17) Describe the role of internet in Bioinformatics.

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VII. Answer **any three** :

- 18) Metabolomics.
- 19) BLAST.
- 20) Swiss prot.
- 21) EMBL.
- 22) INFLIBNET.

(3×2=6)

VIII. Answer **two** of the following :

(2×1=2)

- 23) GeneBank is run by
  - a) NCBI
  - b) EMBL
  - c) EBI
  - d) DDBJ
- 24) Which of the following is a secondary Data base ?
  - a) PRINTS
  - b) KEGG
  - c) PIR
  - d) All these
- 25) Which of the following is a protein sequence database ?
  - a) PIR
  - b) NCBI
  - c) PAGE
  - d) None of these
- 26) Expand NCBI.
- 27) Match the following :

	A	B
a	Primar Database	Printer
b	Out put Device	2D PAGE
c	FASTA	EMBL
d	Proteomics	Pearson
		Higgins