THIRD SEMESTER B.Sc. DEGREE EXAMINATION, NOVEMBER 2014

(UG-CCSS)

Botany—Core Course

BO 3B 03—GENERAL AND BIOINFORMATICS

(2012 Admission onwards)

Time : Three Hours   Maximum : 30 Weightage

I. Answer all *twelve* questions :

1 The third generation of computers have :

   (a)   Transistors.

   (b)   Integrated circuits.

   (c)   Microprocessor.

2 Optical scanner is an :

   (a)   Input device.

   (b)   Output device.

   (c)   Memory device.

3 RAM is a :

   (a)   Permanent memory.

   (b)   Volatile memory.

   (c)   Access memory.

4 The information retrieval tool of NCBI GenBank is :

   (a)   Entrez.

   (b)   STAG.

   (c)   Seqin.

5 The computers connected by links are called _____

6 The knowledge that includes what we know about our own performance as cognitive processes is called

7 Pairwise sequence alignment is done by _____

8 NCBI was established in the year

9 Protein knowledge database which is manually annotated and is reviewed is called Swiss Prot (True/False).

Turn over

10 Lab work using computers and associated web based analysis generally online is called wet lab. (True/False).

11 NCBI is a sequence alignment tool (True/False).

12 Myspace is a social network site (True/False).

(12 x ¼ = 3 weightage)

II. **Short Answer type questions. Answer** *all* **questions** :

13 **List out the output devices of computers.**

14 **Differentiate** intranet **and** internet.

15 **What is Boolean searching** ?

16 **What are the objectives of** BRNET ?

17 **What is the implication of e-waste** ?

18 **What is the application of IT in weather forecasting** ?

19 **Define** Genomics.

20 **Expand BLAST.**

21 **Define** Bioinformatics.

(9 x 1 = 9 weightage)

III. **Short essay** *or* **Paragraph questions. Answer any** *five* **questions** :

22 **Give the salient features of latest generation of computers.**

23 **Substantiate** internet **as a knowledge repository.**

24 **Elaborate on** cyber **ethics.**

25 **What are the applications of IT in resource management** ?

26 **What is the importance of** internet **in** bioinformatics ?

27 **Elaborate** pairwise **alignment.**

28 **Discuss the design and application of** TrEMBL.

(5 x 2 = 10 weightage)

IV. **Essay questions. Answer any** *two* **questions** :

29 **Give an account of programming and application software.**

30 **Discuss the future development of Information Technology.**

31 **Give an account of different Nucleic acid databases.**

(2 x 4 = 8 weightage)