

Seat No.:

No. of Printed Pages : 2

SC

SARDAR PATEL UNIVERSITY

V.V.NAGAR

[20]

EXTERNAL EXAMINATION (2018)

T. Y. Bsc (BNF)-6<sup>th</sup> Semester

Exam Date :- 6/04/2018, Friday

Course :-US06CBNF06

Total Marks :- 70

Time:10:00am – 1.00pm

Subject: - Structure Bioinformatics and RDBMS-II

Q.1 Multiple Choice Questions

[ 10 ]

1. The protein that help in folding protein to get functional native structure called  
a) globin                      b) chaperones                      c) myosin                      d) Histones
2. The portion of proteins having the highest mobility are  
a) a-helices                      b) b-sheets                      c) peptide bonds                      d) surface side chains.
3. The amino acid found in the proteins is  
a) Asparagine                      b) Phenyl Alanine                      c) Histidine                      d) Proline
4. Protein folding leads to ..... in entropy  
a) Increase                      b) decrease                      c) no change                      d) small change
5. Homology modeling can be done using \_\_\_\_\_.  
a). Swiss-PDB Viewer.                      b). QMol.                      c). Raswin.                      d). Babel
6. The \_\_\_\_\_ clause is another section of the selection of the select statement.  
a) Group by                      b) Having                      c) sub query                      d) where
7. A Sub query is also termed as \_\_\_\_\_ query  
a) Nested                      b) view                      c) index                      d) joins.
8. TO make the change permanent a \_\_\_\_\_ statement has to be given at the SQL statement.  
a) Commit                      b) save point                      c) roll back                      d) view
9. The \_\_\_\_\_ function returns number of months between two dates.  
a) month\_between                      b). between                      c). between\_month                      d). month
10. The \_\_\_\_\_ function converts char, a CHARACTER value expressing a number, to a NUMBER data-type.  
a) TO\_NUMBER                      b) TO\_CHAR                      c) TO\_DATE                      d) TO\_NUM

Q.2 Short Questions (Any Ten)

[20]

- 1) Why Ramachandran plot is important.
- 2) Give abbreviation of GOR, CATH, SCOP, PDB.
- 3) How ANN can be used?
- 4) How PSI-PRED work?
- 5) When Ab initio method is used.
- 6) Explain about transmembrane.
7. List the diff. types of joins.
8. Explain Group By clause.
9. Explain the use of commit.
10. Explain Any One Date Function with example.
11. Explain TO\_CHAR function with syntax and example.
12. Explain the use of Savepoint.

- Q.3 a) Explain the algorithm of chou fasman in detail. [05]  
b) Discuss any two methods for protein secondary structure prediction.[05]

OR

- Q.3 a) Explain the algorithm of GOR in detail. [05]  
b) Discuss the algorithm of PSI-PRED in detail. [ 05 ]

- Q.4 a) Discuss in detail about the method and importance of homology modeling. [05]  
b) How VAST and DALI tool works? [05]

OR

- Q.4 a) Discuss the concept and method of any tool for protein structure comparison. [05]  
b) Explain the concept and utility of Ramachandran plot in detail [05]

- Q.5 List all Aggregate functions available in oracle and explain any Three of them with appropriate syntax and example [10]

OR

- Q.5 List all Scalar functions available in oracle and explain any Three of them with appropriate syntax and example. [10]

- Q.6 a) What is view? Why it is created, explain it syntax & example. [05]  
b) Write syntax of grant & Revoke explain any 4 object privileges. [05]

OR

- Q.6 a) What is index? Explain creation of simple & composes index. [05]  
b) What is use of sequences? Explain creating & dropping it with example.[05]