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SEAT No. _____

No. of Printed Pages: 02

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SARDAR PATEL UNIVERSITY
M.Sc. Integrated Biotechnology Examination - Second Semester
Friday, 13th April 2018
PS02CIGB03- Computer Applications

Time: 10:00 am to 1:00 pm

Marks: 70

- Q-1 Multiple Choice Questions** **[08]**
- 1 Rows of the relation are referred as.
a) Relationship b) Tuples c) Attributes d) Record
 - 2 In E-R diagram _____ symbol is used to represent entity sets.
a) Rectangle b) Ellipse c) Diamond d) None of these
 - 3 The _____ constraint can be applied at column level only.
a) Primary b) Foreign c) Not Null d) None of these
 - 4 The output of select Lower(substr('Good Morning'),5) from dual; is _____
a) Morning b) MORNING c) morning d) None of these
 - 5 _____ makes and saves the current points the processing of transaction.
a) Commit b) save point c) roll back d) view
 - 6 The _____ attributes is used to declare a variables based on definition of column in a table.
a) %rowtype b) %type c) %row d) %rowid
 - 7 _____ is an example of curated database.
a) Swiss-Prot b) DDBJ c) NCBI d) None of these
 - 8 NCBI stands for _____
a) National Center for Biotechnology Information
b) National Care for Biotechnology Information
c) National Center for Biochemical Information
d) None of these

- Q-2 Write short answers of following questions. (Any 7)** **[14]**
- 1 Define: Entity and Attribute
 - 2 What is E-R diagram? Explain its components in brief.
 - 3 Explain Max() function with example.
 - 4 Explain distinct clause in brief.

- 5 What is a privilege? List the object privileges.
- 6 Write a difference between %type and %rowtype.
- 7 Explain RPAD () function with example.
- 8 List types of sequence alignment.
- 9 Give full form of EMBL, DDBJ, PIR and BLAST.

Q-3: (A) Define DBMS. Explain components of DBMS in detail. [06]

Q-3: (B) Write a detail note Relational Data Model. [06]

OR

Q-3: (B) What is Normalization? Explain 1NF, 2NF and 3NF form with example. [06]

Q-4: (A) List all the Codd's rules and explain any five of them. [06]

Q-4: (B) Explain Check Integrity concept with proper syntax and example. [06]

OR

Q-4: (B) Explain in detail Update and Delete statements with example. [06]

Q-5: (A) What is explicit cursor? Explain Open and Fetch statement of explicit cursor with example. [06]

Q-5: (B) Explain the structure of PL/SQL block in detail. [06]

OR

Q-5: (B) What is procedure? Explain procedure with syntax and example. [06]

Q-6: (A) What is bioinformatics? Explain any five applications of bioinformatics in detail. [06]

Q-6: (B) Describe central dogma of molecular biology in detail. [06]

OR

Q-6: (B) Explain the various tools of NCBI. [06]