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SEAT No._____

[88]

No. of printed pages: 02

Sardar Patel University
M.Sc. (Integrated) Biotechnology
External Theory Examination
PS02CIGB03 – Computer Applications
17th November, 2017 (Friday)
Time: 02:00 p.m. to 05:00 p.m.

Total Marks: 70

Q 1   **Multiple Choice Questions.**   [08]
1.   In pattern matching _____ allows to match a single character.
        a) _   b) %
        c) &   d) None of these

2.   Which one of the following is an association among several entities?
        a) Domain   b) Entity
        c) Relationship   d) None of these

3.   The output of select Lpad(Lower('SARDAR'),10,'^') from dual; is _____.
        a) ^^^^Sardar   b) ^^^^sardar
        c) ^^^^SARDAR   d) None of these

4.   To make the change permanent a _____ statement has to be given at the SQL statement.
        a) commit   b) roll back
        c) save point   d) view

5.   Which of the following is not three schema architecture for a database?
        a) Hierarchical   b) Physical
        c) Network   d) Relational

6.   Privelages once given can be denied to a user using _____ command.
        a) Recall   b) Grant
        c) Revoke   d) Drop

7.   The sequence that differs because of a gene duplication event is called
        a) paralogous   b) Orthologous
        c) Analogous   d) None of these

8.   _____ is an example of curated database.
        a) Swiss Prot   b) PDB
        c) GenBank   d) None of these

CP. T. O.)

Q 2 Short Questions (Attempt any seven). [14]
1. Define: Attribute, Entity
2. Define information and data.
3. Explain DROP command with syntax, use and example.
4. Explain Between() function with example.
5. Draw the PL/SQL block.
6. Write in brief about SQRT(), ROUND().
7. Give the role of primer in molecular biology.
8. What is gap and gap penalty?
9. Give full form of EMBL, DDBJ, PIR and BLAST.

Q 3 A. What do you mean by DBMS. Explain advantages of DBMS. [06]

Q 3 B. Define data model and explain relational data model in detail. [06]

OR

Q 3 B. Explain normalization in detail alongwith example. [06]

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

Q 4 B. Explain Primary key constraint with proper syntax and example. [06]

OR

Q 4 B. Write and explain following function with syntax and example: [06]
1. ABS() 2. SUBSTR() 3. POWER()

Q 5 A. List out types of join. Explain any one in detail with syntax and example. [06]

Q 5 B. What is explicit cursor? Explain Open and Fetch statement of explicit cursor with example. [06]

OR

Q 5 B. Explain stored procedure in detail alongwith syntax and example. [06]

Q 6 A. Write a detailed note on BLAST and FASTA. [06]

Q 6 B. What is bioinformatics? Explain any five applications of bioinformatics in detail. [06]

OR

Q 6 B. Discuss a detailed note on NCBI. [06]

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