No. of Printed Pages: 02

SARDAR PATEL UNIVERSITY

M.Sc. – Integrated Biotechnology – Second Semester Examination

Thursday, 6th December 2012

Time: 02:30 pm to 5:30 pm

PS02CIGB03: COMPUTER APPLICATIONS

Total Marks: 70

Q-1 Answer the following questions by choosing appropriate option. [08]

(1) Entity does not depend on some other entity types then it is called as_____.

a. Weak b. Strong c. Hard d. Soft

(2) Rows of the relation are referred as _____.

a. Relationship b. Attributes c. Tuples d. Record

(3) The result of function ABS(25) is

a. 25 b. 0 c. -25 d. -1

(4) Which of the following is not DML statement?

a. SELECT b. UPDATE c. DELETE d. CREATE

(5) Fetch statement retrieves _____rows at a time.

a. One b. Two c. Three d. More than three

(6) A _____ must have return statement.

a. Procedure b. Trigger c. Function d. Cursor

(7) Which of these databases stores the protein structures?

a. GenBank b. SCOP c. PDB d. EMBL

(8) Which of these is NOT a transaction command?

a. Commit b. Rollback c. Grant d. Savepoint

Q-2 Answer the following questions (Attempt any seven) [14]

(1) Write short note on Relation Data Model.

(2) Define: Entity, Record.

(3) List any four CODD's Rules.

(4) Differentiate: Column Level and Table Level Constraints.

(5) Describe the CHECK constraints in brief.

(6) Describe UNION clause in brief.

(7) Describe the GRANT commands with example.

(8) Explain the concept of Genome Analysis in brief.

(9) What is Data mining? Describe it.

(P.T.O.)

Q-3 (A) What is Normalization? Explain 1NF, 2NF and 3NF in briefly. [06]

(B) Write a note on Entity-Relationship Model. [06]

OR

(B) Write down the advantages and disadvantages of DBMS. [06]

Q-4 (A) Explain the following commands with example: [06]

(1) Alter (2) Delete (3) Update

(B) Explain the following terms with example: [06]

(1) Primary key (2) Foreign key (3) Composite key

OR

(B) Explain the following functions with example: [06]

(1) LTRIM() (2) RPAD() (3) INITCAP()

Q-5 (A) Explain inner join of two tables with example. [06]

(B) Explain any three attributes of an explicit cursor with example. [06]

OR

(B) Explain Iterative controls with syntax and example. [06]

Q-6 (A) What is pairwise sequence alignment? Explain the Local alignment with example. [06]

(B) Explain BLAST and FASTA. [06]

OR

(B) Explain the Needleman-Wunch algorithm for pairwise global alignment. [06]

****