

**M. SC. BIOINFORMATICS SEM.-I (C.B.C.S.) (2013  
COURSE) / ADVANCED DIPLOMA IN BIOINFORMATICS  
SEM.-I (C.B.C.S.) (2013 COURSE) : SUMMER - 2018**

**SUBJECT: BIO-COMPUTING AND DBMS**

Day : **Monday**  
Date : **09/04/2018**

Time: **10.00 AM TO 01.00 PM**  
Max. Marks. 60

**S-2018-1124**

**N.B.:**

- 1) Q.1 and Q.5 are **COMPULSORY**. Out of the remaining, attempt **ANY TWO** from each sections.
- 2) All question carries **EQUAL** marks.
- 3) Answer to both the sections should be solved in **SEPARATE** answer books.

**SECTION - I**

- Q.1** Explain the following terms: (10)
- a) Unix OS
  - b) LAN
  - c) Internet
  - d) DOS
  - e) MODEM
- Q.2** Answer **ANY TWO** of the following: (10)
- a) What is WWW? What are the protocols used for the wireless and wired connection and why?
  - b) Explain in brief the pipes and filters concept in Unix.
  - c) What is virus? What are the different types of viruses? Explain it with example.
- Q.3** Write short notes on **ANY TWO** of the following: (10)
- a) Data abstraction and its types
  - b) E-R Models and Diagrams
  - c) Data Models and its types
- Q.4** Explain the concept of indexing. Explain its types. Enlist the applications of data mining. (10)

**OR**

Draw and explain the architecture of data warehousing.

**SECTION- II**

- Q.5** a) Explain the terms of Oracle: (06)
- i) Data Files      ii) Blocks      iii) Synonyms
- b) Write a SQL query for the following terms: (04)
- i) Foreign Key      ii) Primary Key
- Q.6** Answer **ANY TWO** of the following: (10)
- a) Explain the concept of "Oracle Memory Management" in brief.
  - b) Explain in brief oracle Architecture. Give a neat labelled diagram of it.
  - c) Explain oracle background processes.
- Q.7** Answer **ANY TWO** of the following: (10)
- a) Define data replication and optimization.
  - b) Create a table using SQL command and execute following queries:
    - i) View table      ii) Delete table      iii) Update table
  - c) What are the grants, roles and privileges of Oracle?
- Q.8** Explain in detail group functions in SQL. (10)

**OR**

Explain in detail oracle report generation mechanism