Roll No. ☐☐☐☐☐☐☐

Candidates must write the Code on the title page of the answer-book.

- Please check that this question paper contains **4** printed pages.
- Code number given on the right hand side of the question paper should be written on the title page of the answer-book by the candidate.
- Please check that this question paper contains **4** questions.
- **Please write down the Serial Number of the question before attempting it.**
- 15 minutes time has been allotted to read this question paper. The question paper will be distributed at 10.15 a.m. From 10.15 a.m. to 10.30 a.m., the students will read the question paper only and will not write any answer on the answer-book during this period.

DATA MANAGEMENT APPLICATIONS

Time allowed : 2 ½ hours] *[Maximum Marks : 50*

1. Multiple Choice Questions :

   (a) The property / properties of a database is / are : **1**

      (A) It is an integrated collection of logically related records.

      (B) It consolidates separate files into a common pool of data records.

      (C) Data stored in a database is independent of the application programs using it.

      (D) All of the above

   (b) A web site to provide online information and services to the citizens is an example of **1**

      (A) e-Business (B) e-Mail

      (C) e-Governance (D) e-Learning

(c) Web address of national portal of India is : **1**

    (A) India.gov.in   (B) GOI.gov.in

    (C) ncert.nic.in   (D) None of the above

(d) Which of the following feature is not supported by java ? **1**

    (A) Multithreading   (B) Reflection

    (C) Operator Overloading   (D) Garbage Collection

(e) Related fields in a database are grouped to form a **1**

    (A) data file   (B) data record

    (C) menu   (D) bank

(f) The language which has recently become the defacto standard for interfacing application programs with relational database system is **1**

    (A) Oracle   (B) SQL

    (C) Dbase   (D) 4GL

2. (a) Write any two advantages of multithreading over multiprocessing. **2**

    (b) A table 'Customers' in a database has 5 columns and no rows in it. What is its cardinality ? What will be its cardinality if 4 rows are added in the table ? **2**

    (c) What is Normalization ? What are the problems with Data Redundancy ? **2**

    (d) What are the advantages of e-Governance ? **2**

    (e) Define inheritance with reference to Object Oriented Programming. **2**

    (f) How is e-learning beneficial ? **2**

(g) In a database there are two tables 'Company' and 'Model' as shown below : **2**

Company

ComplD	CompName	CompHO	ContPerson
1.	Titan	Okhla	C.B. Ajit
2.	Maxima	Shahdara	V.P. Kohli
3.	Ajanta	Najafgarh	R. Mehta

Model

ModelID	CompID	ModelCost
T020	1	2000
M032	4	2500
M059	2	7000
A167	3	800
T024	1	1200

Identify the foreign key column in the table model.

Check every value in CompID column of both the tables. Do you find any discrepancy ?

(h) Write a code fragment that reverses the order of a one-dimensional array a[] of double values. Do not create another array to hold the result. **2**

3. (a) What is Work Integrated Learning ? **3**

(b) What is meaning of End User Development (EUD) ? **3**

(c) What is Data Independence ? What are the types of Data Independence ? **3**

(d) Define SQL. List three subcategories of SQL commands giving one example of command in each category. **3**

(e)   Write the output :   **3**

```
String strl="Hello";
String str2="Hello";
String str3 = new String ("Hello") // Using constructor.
If(strl == str2)
System.out.println("Equal 1");
Else
System.out.println("Not Equal 1");
If(str1 == str3)
System.out.println("Equal 2");
Else
System.out.println("I  am  constructed  using  constructor,
hence not interned");
If(str1.equals(str3))
System.out.println("Equal 3");
Else
System.out.println("Not Equal 3");
```

(f)   Explain various phases of Project Management.   **3**

4.   (a)   What is e-Commerce ? What are its types ?   **5**

     (b)   What is an exception in Java ? What are the reasons for this ? What are the
           three categories of exceptions in Java ?   **5**

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