SET-4

Code No. 319

Roll No. ☐☐☐☐☐☐☐☐

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

- Please check that this question paper contains **7** 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 **31** questions.
- Please write down the Serial Number of the question in the answer-book before attempting it.
- 15 minute 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.

DATABASE MANAGEMENT APPLICATIONS

Time allowed : $2\frac{1}{2}$ hours   *Maximum Marks : 50*

(i)   *This question paper contains **31** questions, out of which the candidate needs to attempt only **23** questions.*

(ii) *Question paper is divided into **two** sections.*

   SECTION A

   - *Multiple choice questions / Fill in the blanks/Direct questions : contains total **12** questions of **1** mark each. Answer any **10** questions.*

   - *Very short answer type questions : contains total **7** questions of **2** marks each. Answer any **5** questions.*

   - *Short answer type questions : contains total **7** questions of **3** marks each. Answer any **5** questions.*

   SECTION B

   *Long answer / Essay type questions : contains total **5** questions of **5** marks each. Answer any **3** questions.*

SECTION A

Multiple choice questions (Choose the most appropriate option). Answer any **ten** *questions from the following :*   *1×10=10*

1. How can you insert a new row into the "Student" table ?   *1*

(A) INSERT (1,'Gulshan') INTO Student;

(B) INSERT VALUES (1,'Gulshan') INTO Student;

(C) INSERT INTO Student VALUES (1,'Gulshan');

(D) ADD ROW Student VALUES (1,'Gulshan');

2. Which of the following statements is true about JAVA ?   *1*

(A) Relational Database Management System

(B) Machine Level Language

(C) Platform Dependent

(D) Supports Objects and Classes

3. Which one of the following is used as a comparison operator in SQL ?   *1*

(A) Double equal sign (= =)

(B) Like

(C) Between

(D) Single equal sign (=)

4. DML provides commands to   *1*

(A) Change the structure of Tables.

(B) Insert, Update or Delete records and values.

(C) Deal with the rights, permissions and other controls of the database system.

(D) All of the above

5. The most common protocol that is used to access any web application on the Internet is   *1*

(A) Gopher

(B) FTP

(C) HTTP

(D) WAIS

6. Which of the following is/are the advantage(s) associated with the B2B e-commerce ?   *1*

    (A)   Shorter cycle time

    (B)   Reduction in cost

    (C)   Reaches wider audiences

    (D)   All of the above

7. Which operator is used in SQL to compare a value with a specific list of values ?   *1*

    (A)   BETWEEN

    (B)   ANY

    (C)   ALL

    (D)   IN

8. Which of the following expressions in SQL should Mr. X write to display all records from table **STUDENT** where marks column is empty ?   *1*

    (A)   SELECT * FROM STUDENT WHERE MARKS EMPTY;

    (B)   SELECT * FROM STUDENT WHERE MARKS IS NULL;

    (C)   SELECT * FROM STUDENT WHERE NULL (MARKS);

    (D)   SELECT * FROM STUDENT WHERE MARKS = NULL;

9. Consider x = 1, which of the following are valid Java statements for changing the value of x to 0 ?   *1*

    I.   x--;
    II.   x = x - 1;
    III.   x - = 1;
    IV.   x = -1;

    (A)   I, II & III

    (B)   I & IV

    (C)   II & IV

    (D)   All of the above

10. What will be the output of the following program ? *1*

```
public class Prg {
    public static void main(String args[ ]){
        System.out.print("4"+0+3);
    }
}
```

(A)   43

(B)   Compile error

(C)   403

(D)   7

11. Which of the following method of class String is used to obtain a length of String object ? *1*

(A)   get()

(B)   sizeof()

(C)   length()

(D)   len()

12. Amazon is an example of which category of e-commerce website ? *1*

(A)   B2B

(B)   B2C

(C)   C2B

(D)   C2C

*Very short answer type questions. Answer any **five** questions from the following :* *2×5=10*

13. What is the difference between char and Varchar datatype ? *2*

14. What will be the output of the following code and why ? *2*

```
int i = 100;
while (i == 100)
{
  System.out.println("Hello Everyone!");
}
```

15. Define Methods in Java. Which method is used to convert string into integers ? *2*

16. Sambhav has created the Table **Item** in a database **"Company"**. Based on the above information, write the SQL command to do the following : *2*

    (a)   View the structure of the table.

    (b)   View the contents of the table.

17. Draw an ER diagram showing the relationship between student and course. *2*

18. What is the role of Java Compiler and Interpreter ? *2*

19. List any four ways in which ICT can be used to improve effectiveness in teaching and learning. *2*

*Short answer type questions. Answer any **five** questions from the following :*   *3×5=15*

20. Differentiate between Alter and Update command. Write one example of each. *3*

21. What is looping ? Write the Java program to print the first 10 even numbers. *3*

22. Explain the following terms with reference to database connectivity : *3*

    (i)   JDBC

    (ii)   getconnection method()

23. Write any three issues faced by the customers while shopping online. *3*

24. What is EUD ? Identify the backend tools from the following : *3*

        Oracle, MYSQL, HTML, Netbeans, Eclipse

25. 'Prevention is always better than cure' is a well-known saying. You can't avoid being online but you can definitely be cautious while doing any online transaction. List down any three precautions that you must take care of for the same. *3*

26. Explain how the use of database applications can benefit Mr. Yash in starting his new business. *3*

*Long answer type questions. Answer any **three** questions from the following :* *5×3=15*

27. What are operators ? Identify the type of operators used in the code below. What will be the output of the following program and why ? *5*

    class Modulus
    {
        public static void main(String s[ ])
        {
            int x = 42;
            double y = 42·25;

            System.out.println("x mod 10 =" + x % 10);
            System.out.println("x divided by 10 =" + x / 10);
            System.out.println("y mod 10 =" + y % 10);
        }
    }

28. Define the concept of Classes and Objects in Java, giving suitable example. *5*

29. Which package is used for string in Java ? *5*

    Consider the following code :

    String Name="Learning Java";

    What will be the output of the following code and why ?

    (a)   System.out.println(Name.indexOf("a"));

    (b)   System.out.println(Name.replace("Java","Python"));

30. Explain any five initiatives taken by the government to promote e-learning. *5*

31. SPUNK Sportswear Ltd. is maintaining the record of orders received zone-wise in the table - Order.

Table – Order				
OrderCode	Zone	Item	Order_Amt	Date_Order
O101	North	Shoes	250000.76	2011/08/12
O102	North	Tennis Rackets	548799·75	2012/05/13
O103	South	Volleyballs	100000.00	2012/08/05
O104	East	Roller Skates	349000.85	2010/11/11
O105	East	Hockey Sticks	500000.00	2018/04/09
O106	South	Yoga Mats	23450.50	2015/06/09
O107	South	Tennis Balls	15000.00	2019/09/02

(a) Write the SQL command to create the above table.

(b) Identify the primary key in the above table. Is primary key a candidate key also ?

(c) Delete the records of all items ordered by South Zone.

(d) What will be the degree of the above relation after deleting the records of South Zone and why ?

(e) Write the output of the following SQL commands based on the table given above :

Select item from Order where item like "%Ball%"   5