

2022

INFORMATICS PRACTICES

Total marks : 70

Time : 3 hours

General instructions:

- i) *Approximately 15 minutes is allotted to read the question paper and revise the answers.*
- ii) *The question paper consists of 25 questions. All questions are compulsory.*
- iii) *Marks are indicated against each question.*
- iv) *Internal and general choice have been provided in some questions.*

N.B: *Check to ensure that all pages of the question paper is complete as indicated on the top left side.*

1. Choose the correct answer from the given alternatives: 5x1 = 5

(a) Which of the following is an open source graphic format?

- i) JPEG
- ii) PNG
- iii) GIF
- iv) BMP

(b) Which command helps you to see all the records of table?

- i) Select
- ii) Query
- iii) Show All
- iv) None of these

(c) Which of the following is back-end technology?

- i) MySQL
- ii) C#
- iii) Java
- iv) NetBeans

(d) Which of the following is/are valid data integrities?

- i) Entity integrity
- ii) Domain integrity
- iii) Referential Integrity
- iv) All of these

(e) Transitive dependency is related to

- i) 1NF
- ii) 3NF
- iii) 2NF
- iv) 4NF

2. What is the significance of System.exit (0) method? **1**

3. Write two features of DBMS MySQL. **1**

4. Differentiate ORDER BY and GROUP BY clause. **1**

5. What is the benefit of e-Governance? **1**

6. What is a data driven application? **1**

7. What is a self-join? **1**

8. Define UNION operator. **1**

9. What is the difference between primary key and unique key? 1
10. What is meant by “Denial of Service” with reference to Internet service? 2
11. Differentiate between free software and open source software. 2
12. What is meant by reusability? 2
13. Differentiate between ‘/’ and DIV operators. 2
14. How is a database driver library added in Java application? 2
15. What kind of integrity is maintained by SET and ENUM operators? What does ACID stand for? 2
16. Give two characteristics of Primary Key. 2
17. What is the significance of default constraint? 2
18. What is meant by Insertion anomaly? 2
19. When is a table said to be in 2nd Normal Form? 2
20. What are the disadvantages of an un-normalized database? 2
21. Answer **any three (3)** questions.
 - (a) What is NetBeans? What are the various screen segments of NetBeans Window? 4
 - (b) Write short notes on: 4
 - (i) Single Inheritance
 - (ii) Access Specifier
 - (iii) Encapsulation
 - (iv) Data Hiding
 - (c) Briefly explain any four advantages of OOPS. 4
 - (d) What are the various operators available in MySQL? Discuss with examples. 4
 - (e) What is Internet? Discuss any three advantages of Internet. 4
 - (f) Discuss any four components of XML. 4

22. Answer **any two (2)** questions.
- (a) Define join. Differentiate between INNER join and OUTER join. **4**
 - (b) What is meant by data integrity? Explain the different types of data integrity. **4**
 - (c) Define Normalization and the need of it. **4**
 - (e) What is the need of Boyce-Cod normal form? **4**
23. **a.** What are the different threats to computer network? Explain any five of them. **5**
- Or**
- b.** What are the different types of networks? Explain each type.
24. **a.** What is a subquery? How can it be used with IN and NOT IN operator? **5**
- Or**
- b.** What is a transaction? Describe the properties of transaction.
25. **a.** What are the functional requirements for Message Board Application? **5**
- Or**
- b.** Draw the ER Diagram of Message Board Application.
