

2020

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 28 questions. All questions are compulsory.*
- iii) *Marks are indicated against each question.*
- iv) *Internal choice has been provided in some questions.*

N.B: *Check 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) IP version 6 address is a _____ byte address.
 - i) four
 - ii) six
 - iii) eight
 - iv) sixteen

- (b) Which method of float class can convert its value to string?
 - i) toString()
 - ii) toString()
 - iii) ConvertToString()
 - iv) parseString()

- (c) Which clause is used to filter data in query?
 - i) FILTER
 - ii) ORDER BY
 - iii) WHERE
 - iv) SEARCH

- (d) Which of the following is a SET operator supported in MySQL?
 - i) INTERSECTION
 - ii) MINUS
 - iii) UNION
 - iv) EXCEPT

- (e) What kind of data structure has been used for mind reader game application?
 - i) Array
 - ii) Link List
 - iii) Table
 - iv) None of these

- 2. What is the full form of FLOSS? **1**

- 3. What is a server? **1**

- 4. What is a method? **1**

- 5. What is the <HR> element? **1**

- 6. Define Union operator. **1**

7. What is de-normalization? 1
8. What is the use of random() method? 1
9. What is the use of Post Message Screen? 1
10. Differentiate between free software and open source software. 2
11. What is method overloading? 2
12. Give two attributes of HTML table element. 2
13. How does java application connect to a database? 2
14. Write short notes on : 2
 - i) Single inheritance
 - ii) Data hiding
15. Define class and object. 2
16. Explain in brief the following terms: 2
 - i) XSLT
 - ii) CSS
17. What is referential integrity and self-join? 2
18. When is a table said to be in 2nd Normal form? 2
19. State the difference between NOW() and SYSDATE() functions of MySQL. 2
20. What is the difference between radio button and checkbox? 2
21. **a.** Explain any four methods of JFrame class. 4

Or

b. What are the features of OOPS? Explain them briefly.
22. **a.** What is a <FRAMESET>? Explain the different FRAME related elements and attributes with example. 4

Or

b. What are the various components of a data driven application? Explain.

23. a. Consider the PLAYERS table with data given below and write the query for the following questions:

PID	FNAME	LNAME	GAME	GENDER	DOB	AGE
100	AASTIK	DAS GUPTA	CRICKET	M	12/12/2003	10
101	HANSIKA	MONDAL	BASKETBALL	F	29/11/2007	15
102	ANUMITA	DAS GUPTA	KHOKHO	F	31/12/1998	15
103	MAHUA	MONDAL	HOCKEY	F	23/05/2000	13
104	MOHAN	GHOSE	CRICKET	M	24/06/2001	12
105	SUBHAM	MOHANTA	BASKETBALL	M	23/08/2000	13

- i) Write a query to display records of players who play cricket.
- ii) Write a query to display records of players who were born after year 2000 and before year 2006.
- iii) Write a query to count the number of male players.
- iv) Write a query to display names starting with 'A'.

Or **4**

- b. Briefly explain the various products of MySQL database.

24. a. Compare and contrast between two-tier and three-tier architectures.

Or **4**

- b. What is meant by data integrity? Briefly explain any three types of data integrity.

25. a. What is the use of GROUP BY clause? Explain with an example.

Or **4**

- b. Define join. Differentiate between INNER join and OUTER join.

26. a. What are the different types of networks? Explain each type.

Or **5**

- b. What is meant by Open Source Concept? State its advantages and disadvantages.

27. a. What are the various built in functions available in MySQL? Explain its function, name and description.

Or **5**

- b. Define constraints in MySQL. Briefly explain the different types of key constraints in MySQL.

28. a. What is meant by application having GUI? Compare and contrast between CUI and GUI.

Or **5**

- b. What is a transaction? Describe the four properties of transaction.
