

Total number of printed pages : 3

NB/XII/IP/1

2025

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 22 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 are complete as indicated on the top left side.

1. Choose the correct answer from the given alternatives: 10x1 = 10

- (a) In fibre optic cable, data travels in the form of _____.
 - i) sound
 - ii) magnetic wave
 - iii) light
 - iv) none of these
- (b) TCP stands for
 - i) Transmission Control Protocol
 - ii) Transfer Control Protocol
 - iii) Transport Control Protocol
 - iv) None of the above
- (c) Which of the following is not true about Open Source Software?
 - i) Freedom to use
 - ii) Freedom to modify
 - iii) Freedom to share
 - iv) Freedom to sell
- (d) Where can one see the list of bugs found in the program?
 - i) Output window
 - ii) Error window
 - iii) Source window
 - iv) None of these
- (e) _____ is an instance of a class.
 - i) Methods
 - ii) Variables
 - iii) Events
 - iv) Object
- (f) Which clause is used to filter data in query?
 - i) FILTER
 - ii) ORDER BY
 - iii) WHERE
 - iv) SEARCH
- (g) _____ tag is used to create a hyper link in HTML page.
 - i) <A>
 - ii) <I>
 - iii)
 - iv) <P>
- (h) Which method of 'Class' class is called to register a MySQL driver?
 - i) forName()
 - ii) registerDriver()
 - iii) getConnection()
 - iv) None of these

- (i) In RDBMS the tables related to each other using primary key and foreign key are called _____ and _____ table respectively.
 - i) Parent, child
 - ii) primary, secondary
 - iii) child, parent
 - iv) mother, child
- (j) Transitive dependency is related to
 - i) 1NF
 - ii) 2NF
 - iii) 3NF
 - iv) 4NF
- 2. Write a short note on the following networking devices: 2
 - i) Hub
 - ii) Modem
- 3. Define Java Development Kit (JDK). 2
- 4. Write short notes on logical error. 2
- 5. What are HTML tags? 2
- 6. What is the use of Horizontal Rule? 2
- 7. What is meant by presentation layer? 2
- 8. Write short notes on the following:
 - i) DML
 - ii) DDL2
- 9. What is MySQL workbench? 2
- 10. What is Primary key? 2
- 11. What is de-normalization? 2
- 12. What is the use of random () method? 2
- 13. a. What is inheritance? What are the different types of inheritances? 3

Or

b. Distinguish between Data Access Layers and Data Source Layer.
- 14. Discuss the various advantages of Internet. 3
- 15. What are the different elements of a table? 3
- 16. a. What is data integrity? Explain any two types of data integrities. 3

Or

b. Differentiate between INNER join and OUTER join.
- 17. Discuss functional dependency. 3
- 18. a. Explain the various screens provided to work with the Message Board Application. 3

Or

b. Explain the various functionalities of Mind Reader Game Application.
- 19. a. Compare and contrast between OSI reference model and TCP/IP reference model. 5

Or

b. What is open source concept? Explain any four advantages of open source concept.

20. a. Distinguish between CUI and GUI. 5
 Or
 b. Define a constructor. Write down the various properties of constructors.
21. a. Explain any five different data types available in MySQL. 5
 Or
 b. What are constraints? How do they help to maintain data integrities?
22. a. What is the importance of Boyce-Cod normal form? Explain. 5
 Or
 b. What is a subquery? Write down the various subquery rules.
