

2011000101050002
B.C.A. F.Y. (Semester-I)
Examination December-2023
Data Manipulation and Analysis (DMA)

Seat No:

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[Time: Three Hours]

[Max. Marks: 70]

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| Student's Signature |
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Q.1 Choose appropriate Correct Option. (Any ten)

20

1. A continuous group of cell is called as
a) Address b) Pointer c) Reference d) Range
2. By default, a workbook has worksheets
a) 1 b) 2 c) 3 d) 4
3. Which function returns the number of days between two dates based on a 360 day per year?
a) =days() b) =days360() c) =daysdiff() d) None
4. In a spreadsheet, the block of cells is called
a) Workbook b) Columns c) Rows d) Range
5. Which of the following is used to fix the cell address in a formula?
a) Relative reference b) Absolute reference c) Mixed reference d) None
6. Which is Active cell?
a) Main Cell b) Working Cell c) Base Cell d) Formatting Cell
7. IF, AND, OR, TRUE and FALSE are
a) Logical Functions b) Statistical Functions c) Text Functions d) None
8. How to protect a worksheet?
a) by giving the secret file name b) by giving a password c) by hiding d) All of above
9. Which function is used to count number of cell values based on some condition?
a) =SUM() b) =COUNT() c) =COUNTIF() d) =SUMIF()

10. The graphical representation of data in spreadsheet is called
a) Graphics b) Picture c) Charts d) Figures

11. Which of the following menu has option Text to Column?
a) Insert b) Tools c) Data d) Format

12. What is the use of pmt()?
a) Printing time b) Printing Minutes
c) Payment on constant interest rate d) Printing Month

Q.2 Answer the following: (Any Two) **12**
a) What is database architecture? Explain various database architectures in detail.
b) What is Normalization? Why it is required? Explain various anomalies with suitable example.
c) Differentiate between 1-tier, 2-tier and 3-tier Database Architecture.

Q.3 Answer the following: (Any Two) **14**
a) Write a note on various database languages.
b) What is strong entity set and weak entity set? Explain with examples. Also give difference among strong and weak entity sets?
c) Write a note on various Armstrong Axioms.

Q.4 Answer the following: (Any Two) **14**
a) Draw an E-R diagram for Hospital management system.
b) Explain various types of attributes with proper examples.
c) Explain aggregate functions available in SQL with suitable example.

Q.5 Solve following queries using SQL. (Any five) **10**
Consider the table to solve the queries.
Patient_Master (P_No, P_Name, DOB, Gender, City, TypeOfDisease)
1. Create given table with appropriate constraints.
2. Write a query to display all patients whose name starts with 'A' or 'M'.
3. Display all patients whose lives in 'Baroda' city.
4. Write a query to display total number of patients of 'Surat' city.
5. Display P_No, P_Name and TypeOfDisease for all 'Male' patients.
6. Display all patients having 'Malaria' disease.
7. Add column 'ContactNo' to the given table.