



B.K. BIRLA CENTRE FOR EDUCATION



SARALA BIRLA GROUP OF SCHOOLS A CBSE DAY-CUM-BOYS' RESIDENTIAL SCHOOL

MID-APRIL TEST 2025-26 INFORMATION TECHNOLOGY (802)

General Instructions:

- 1. Please read the instructions carefully.
- 2. This Question Paper contain two sections: Section A & Section B.
- 3. Section A has Objective type questions whereas Section B contains Subjective type questions.
- 4. All questions of a particular section must be attempted in the correct order.
- 5. SECTION A OBJECTIVE TYPE QUESTIONS (09 MARKS):
 - i. This section has 02 questions.
 - ii. Marks allotted are mentioned against each question/part.
 - iii. There is no negative marking.
 - iv. Do as per the instructions given.
- 6. SECTION B SUBJECTIVE TYPE QUESTIONS (16 MARKS):
 - i. This section has 12 questions.
 - ii. A candidate has to do 7 questions.
 - iii. Do as per the instructions given.
 - iv. Marks allotted are mentioned against each question/part.

SECTION A: OBJECTIVE TYPE QUESTIONS

Q.(1) Answer any 5 out of the given 6 questions:

 $(5 \times 1 = 5)$

- (i) What is the primary purpose of a database, as described in the provided text?
 - (a) To represent a mini real world
 - (b) To create complex applications
 - (c) To replace real world data
 - (d) To organize data in a random format
- (ii) Why are databases crucial for modern information systems, according to the text?
 - (a) They allow data to be disorganized and unstructured
 - (b) They enable easy data retrieval with the help of complex query languages
 - (c) They ensure data consistency, provide security and allow for data backup
 - (d) They are primarily used for reporting and analytics, not data storage
- (iii) The number of attributes in a relation is called its
 - (a) Degree (b) Attribute
 - (c) Cardinality (d) Domain
- (iv) What SQL command is used to display a list of all databases in a database management system?
 - (a) Display Databases;(b) List databases;(c) Show databases;(d) View Databases;

(v) What is the initial step in setting up a database system? (a) Executing the Create database command (b) Designing the database schema (c) Populating the database with data (d) Configuring database permissions (vi) Which SQL command is used to display the tables within a specific database? (a) Show Database Name; (b) Display Database Name; (c) Show Tables from Database_Name; (d) List tables Database_Name; O.(2) Fill in the blanks: $(4 \times 1 = 4)$ (i) The information about entities in the real world is stored in a format within a (ii) A Database Management System (DBMS) controls how data is on a computer for easy access. (iii) In SQL, while applying conditions on a group, instead of WHERE clause clause is used.

SECTION B: SUBJECTIVE TYPE QUESTIONS

Answer any 5 out of the given 8 questions:

 $(5 \times 2 = 10)$

- **Q.** (3) What is Data and Information? Explain with example.
- **Q. (4)** What is the need/importance to have a database in modern information system? Explain any four points.
- Q. (5) What are the type of users in DBMS? Name all and explain any one of them.

(iv) command deletes one or more tuples from a Table.

- **Q.** (6) Write two advantages and two disadvantages of DBMS approach.
- **Q.** (7) Name any four aggregate functions used in SQL.
- **Q.** (8) Write SQL command to create the following table ITEM:

Column Name	Datatype
G_ID	Char(4)
Description	Varchar(20)
Manufacture_Date	Date
Price	Decimal
Warranty	Int

Q. (9) Suggest the datatypes for the following columns of Salary table to be created:

Emp_ID

Name

Basic Salary

DateofJoin

Q. (10) With the help of an example explain the concept of self-referencing tables.

Answer any 2 out of the given 4 questions:

 $(2 \times 3 = 6)$

- Q.(11) Name and explain four database operations.
- **Q.(12)** Write short notes on the following:
 - (a) Primary key
- (b) Foreign key
- (c) Candidate key
- **Q.(13)** Take the below table as an example. (Table Name : Employee)

Employee_num	HRA	DA	Gross	PF Contributions

Write an SQL query to display for the following:

- (a) Employee_num, HRA and Gross for all the employees.
- (b) Employee_num, DA and Pf Contributions for employees whose DA is 7000 or more.
- (c) Only the list of Employee_num's

Q.(14) Consider the following table: (Table Name: Library)

Bid	Name	Author	Price	Mem_name	Issue_Date
B01	Wings of Fire	APJ Abdul Kalam	550	Sarita	2018-05-20
B02	The Monk who sold his Ferrari	Robin Sharma	340	Simmi	20108-03-15
B03	You can win	Shiv Khera	230	Rajat	2018-04-16
B04	Who moved my cheese	Spencer Johnson	450	Ram	2018-03-17
B05	Real Success	Patrick Mather - Pike	250	Sia	2018-06-18

Write the SQL command for the following statements:

- (a) Display the entire table.
- (b) Display those records having Mem_name Ram.
- (c) Display Name and Author of those books whose Price is more than 200.

****** ALL THE BEST *******