B.K. BIRLA CENTRE FOR EDUCATION

NABET

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

INDIAN PUBLIC SCHOOLS' CONFERENCE

TERM 1 EXAMINATION (2025-26)
INFORMATION TECHNOLOGY (802)

Class: XII (SUBJECT-4)   **Time : 3 hrs.**
Date: 10-09-2025   **Max Marks: 60**
Admission No. : …..…………   **Roll No. :**

General Instructions:
1. *Please read the instructions carefully.*
2. *This Question Paper consists of 22 questions in 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 (30 MARKS):***
    i. *This section has 05 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 (30 MARKS):***
    i. *This section has 17 questions.*
    ii. *A candidate has to do 11 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 4 out of the given 6 questions on Employability Skills.   **(4 x 1 = 4)**

(i) 'O' in the acronym 'OCEAN' stands for:
     (a) Openness   (b) Obedient
     (c) Object   (d) None of these

(ii) Mona is helping her sister to overcome a personality disorder. What should she do?
     (a) Talk to her sister   (b) Engage her in hobbies
     (c) Help her build confidence   (d) All of these

(iii) An individual who initiates, creates and manages a new business can be called …………
     (a) A leader   (b) A manager
     (c) An entrepreneur   (d) A professional

(iv) Self-Management is also called
     (a) Self control   (b) Personality
     (c) Stress   (d) None of these

(v) The intersection point between a row and column is called …………………….

(vi) Extension of an OpenOffice Calc file is _____.

Q.(2) Answer any 3 questions out of the given 4 questions on Introduction to database Concepts.
     (3 x 1 = 3)

(i) Which of the following is a benefit of organizing data in a tabular structure within a database?
     (a) It enables simple storage, access, and manipulation of data.

(b) It adds more complexity to the data.
(c) It makes retrieving information harder.
(d) It restricts integration with applications.
(ii) Why are databases crucial for modern information systems?
  (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………………….
(iv) What is the purpose of the Alter Table command?

  (a) To add or remove a database
  (b) To delete an existing table
  (c) To modify the structure of an existing table
  (d) To create a new table

Q.(3) Answer any 6 questions out of the given 7 questions on Working with SQL.

(6 x 1 = 6)

(i) How do you add a PRIMARY KEY constraint to an existing table?
  (a) ALTER TABLE table_name ADD PRIMARY KEY (column_name);
  (b) MODIFY TABLE table_name SET PRIMARY KEY (column_name);
  (c) UPDATE TABLE table_name ADD PRIMARY KEY (column_name);
  (d) None of these;
(ii) 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
(iii) 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;
(iv) ……………….. command displays list of databases available in the current server.
(v) Which language is used to manage data in a database?
(vi) What is the purpose of the SELECT statement?
  (a) To update data in a table   (b) To delete data from a table
  (c) To insert data into a table   (d) To retrieve data from a table
(vii) What command means "display all columns"?
  (a) SHOW COLUMNS   (b) DISPLAY COLUMNS
  (c) LIST COLUMNS   (d) SELECT *

Q.(4) Answer any 7 questions out of the given 9 questions on Operating Web based Applications. **(7 x 1 = 7)**
(i) What is the main objective of E-Governance?
  (a) Increase paper usage in offices
  (b) Improve communication among family members
  (c) Provide government services online
  (d) Encourage physical visits to government offices
(ii) What does the R in IRCTC stand for?
(iii) NICNET – A national satellite based computer network in India was launched in the year :
  (a) 1986   (b) 1987   (c) 1990   (d) 1992
(iv) Unit, integration and user acceptance are all forms of :
  (a) Frontend development   (b) Backend development
  (c) Integration   (d) Testing
(v) What kind of online courses does Khan Academy provide?

(vi) The first step in online shopping is to :
  (a) Visit the websites　　　　　　　　　(b) Open your smartphone
  (c) Use your debit card　　　　　　　　(d) None of these

(vii) Credit card bills as well as Internet and cable bills can be paid :
  (a) Online　　　　　　　　　　　　　(b) Offline
  (c) Both (a) and (b)　　　　　　　　　(d) None of these

(viii) In online reservation systems, which of the following is usually required?
  (a) A passport photo　　　　　　　　　(b) Paper ticket only
  (c) Internet connection and login credentials (d) Offline registration

(ix) What is essential for developing a web-based project?
  (a) Knowing only HTML　　　　　　　(b) A team of two or more people
  (c) Clear project goals and proper planning　　(d) printing the project plan

Q.(5) Answer any 10 questions out of the given 12 questions on Java Programming with Net beans. (10 x 1 = 10)

(i) Which feature of Java makes it platform independent?
  (a) Object-Oriented Programming　　　(b) Bytecode and JVM
  (c) Automatic Garbage Collection　　　(d) Inheritance

(ii) What is the main method signature used to start a Java program?
  (a) public static void main(String args[])　　(b) public void main(String args)
  (c) static public main(String[] args)　　(d) public static int main(String args[])

(iii) Which operator is used to perform addition in Java ?
  (b) +　　　　　　(b) -　　　　　(c) *　　　　(d) /

(iv) What will be the value of x after the following code :
  int x = 8;
  x += 3;

(v) What is the result of the expression 8%3 in Java ?

(vi) Which operator is used to increment a variable by 1 in Java ?

(vii) In Java, what is the purpose of the "if" statement ?

  (a) To declare a variable
  (b) To repeat a block of code until a condition is met
  (c) To execute a block of code conditionally based on a Boolean expression
  (d) To perform arithmetic operations

(viii) What happens if the condition specified in an "if" statement evaluates to false ?
  (a) The program terminates
  (b) The code block associated with the "if" statement is skipped
  (c) The code block associated with the "if" statement is executed
  (d) An exception is thrown

(ix) In java, why is it necessary to initialize variables before usage ?
  (a) To ensure that the variable holds a specific value throughout its lifecycle.
  (b) To prevent memory leaks in the program
  (c) To allow the compiler to allocate the appropriate amount of memory for the variable
  (d) To optimize the performance of the program by reducing memory consumption

(x) Which logical operator in Java evaluates to True if either of the operands is true ?
  (a) &&　　　　　(b) ||　　　　　(c) !　　　　(d) %

(xi) Which part of a "for" loop in Java is optional ?
  (a) Initialization　　　　　　　　　(b) Condition
  (c) Increment/Decrement　　　　　　(d) All parts are optional

(xii) Which of the following statements is used to terminate a "for" loop prematurely in Java ?
  (a) Continue　　　　(b) Exit　　　　(c) Break　　　　(d) Return

SECTION B: SUBJECTIVE TYPE QUESTIONS

Answer any 3 out of the given 4 questions on Employability Skills   **(3 x 2 = 6)**

Q. (6) Define Goal Setting.

Q. (7) Define self-motivation. Why is self-motivation important ?

Q. (8) What is a function in Calc ? Explain the following Calc functions with the help of examples.

Q. (9) List any four qualities of an Entrepreneur. Explain any two.

Answer any 3 out of the given 5 questions on Subject Specific Skills.   **(3 x 2 = 6)**

Q.(10) What is Data and Information ? Explain with example.

Q.(11) Name and explain any two aggregate functions used in SQL. Give example also.

Q.(12) Write SQL command to create the following table :

Table: Devices

Column name	Datatype
D_ID	Char(4)
Description	Varchar(20)
Manufacture_date	Date
Price	Decimal
Warranty	Int

Q.(13) What is E-Governance ? Name any two E-Governance sites of India.

Q.(14) What is the difference between print and println command in Java ?

Answer any 2 out of the given 3 questions on Subject Specific Skills.   **(2 x 3 = 6)**

Q.(15) Name and explain any three types of users available in DBMS. .

Q.(16) Take the below table as an example. (Table Name : Employee)

Employee_name	Emp_No	DOB	Sal	MobNo

Write an SQL query to display for the following :

(a) Display employee name, emp number and salary for all the emloyess.

(b) Display employee_name, emp_no and DOB for whose salary are 3000 or more.

(c) Display only the list of employee_name

Q.(17) What are the best practices for naming variables in Java ? Explain any three

Answer any 3 out of the given 5 questions on Subject Specific Skills.   **(3 x 4 = 12)**

Q.(18) Write short notes on the following :

     (a) Primary key   (b) Foreign key   (c) Candidate key   (d) Super key

Q.(19) Consider the following table: Products

ProductID	ProductName	Category	Quantity	Price	Factory
101	Steel Rods	Raw Material	500	120	Factory A
102	Copper Wires	Raw Material	300	200	Factory B
103	Bolts	Hardware	800	15	Factory A
104	Nuts	Hardware	600	10	Factory C
105	Machine Gear	Components	150	500	Factory B

ProductID	ProductName	Category	Quantity	Price	Factory
106	Plastic Sheets	Raw Material	400	50	Factory A
107	Bearings	Components	250	300	Factory C

Write SQL Query for the following :
1. Write a query to display products whose price is greater than 100.
2. Write a query to display all products manufactured in Factory A.
3. Write a query to display all products in ascending order of Price.
4. Write a query to add a new column ManufactureDate in the Products table.

Q.(20) Consider the following table : Order

OrderID	CustomerName	Product	Quantity	Price
1	Rahul	Pen	10	5
2	Meena	Notebook	5	40
3	Suresh	Pencil	20	3
4	Anita	Geometry Box	2	60

Write SQL Query for the following :

1. Display CustomerName, Product, and TotalAmount (Quantity × Price) for all orders.
2. Display the details of orders where Quantity is more than 5.
3. Display products in alphabetical order of Product name.
4. Display the entire table.

Q.(21) Write and explain any four precautions that you must take while performing online transactions.
Q.(22) Write a program in Java for the following :
(a) To print "Hello World"
(b) To display addition of two numbers 3 and 5.

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