



# B.K. BIRLA CENTRE FOR EDUCATION

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

## PRE BOARD 1 EXAM : 2025-26 INFORMATION TECHNOLOGY (802)

Class: XII (SUBJECT-5)

Date: 07-11-2025

Admission No. : .....

Time : 3 hrs.

Max Marks: 60

Roll No. :

### General Instructions:

1. Please read the instructions carefully.
2. This Question Paper consists of 24 questions in two sections: Section A & Section B.
3. Section A has Objective type questions whereas Section B contains Subjective type questions.
4. Out of the given (6 + 18 =) 24 questions, a candidate has to answer (6 + 11 =) 17 questions in the allotted (maximum) time of 3 hours.
5. All questions of a particular section must be attempted in the correct order.
6. **SECTION A - OBJECTIVE TYPE QUESTIONS (30 MARKS):**
  - i. This section has 06 questions.
  - ii. There is no negative marking.
  - iii. Do as per the instructions given.
  - iv. Marks allotted are mentioned against each question/part.
7. **SECTION B – SUBJECTIVE TYPE QUESTIONS (30 MARKS):**
  - i. This section has 18 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.

## MARKING SCHEME

### SECTION A: OBJECTIVE TYPE QUESTIONS

**Q.(1) Answer any 4 out of the given 6 questions on Employability Skills.**

**(4 x 1 = 4)**

1. (a) Communication
2. (a) Borderline
3. (a) Self Control
4. (b) Sort the data
5. (a) Makes decisions
6. (c) Eco-tourism

**Q.(2) Answer any 5 questions out of the given 7 questions**

**(5 x 1 = 5)**

- (i) (a) It allows easy storage, retrieval and data manipulation.
- (ii) Data refers to raw facts and figures that can be processed to produce information.
- (iii) SQL enables easy data retrieval and querying.
- (iv) SHOW DATABASES command displays list of databases available in the current server.

- (v) Aggregate functions perform calculations on multiple rows (e.g., SUM, AVG, COUNT).
- (vi) HAVING clause is used instead of WHERE for group conditions.
- (vii) Show databases;

**Q.(3) Answer any 6 questions out of the given 7 questions** **(6 x 1 = 6)**

- (i) Stored in tabular format within a database.
- (ii) Two aggregate functions – SUM(), AVG().
- (iii) Degree = 5, Cardinality = 6 (for table VEHICLE).
- (iv) IRCTC – Indian Railway Catering and Tourism Corporation.
- (v) Primary key: ORDERNO; Foreign key: ID.
- (vi) (a) Free
- (vii) (c) Both (a) and (b).

**Q.(4) Answer any 5 questions out of the given 6 questions.** **(5 x 1 = 5)**

- (i) (d) Testing
- (ii) (c) Design
- (iii) (b) 1987
- (iv) True
- (v) (a) Visit the websites
- (vi) break statement

**Q.(5) Answer any 5 questions out of the given 6 questions** **(5 x 1 = 5)**

- (i) True
- (ii) It acts as the entry point of every Java program.
- (iii) True – the result is true.
- (iv) Statement #1 uses char type for a single character, Statement #2 uses String for text.
- (v) (b) The code block associated with the “if” statement is skipped.
- (vi) Bytecode

**Q.(6) Answer any 5 questions out of the given 6 questions** **(5 x 1 = 5)**

- (i) (c) To execute a block of code conditionally based on a Boolean expression.
- (ii) Integer
- (iii) concat() method.
- (iv) 2
- (v) (c) To allow the compiler to allocate appropriate memory.
- (vi) (a) Data inconsistency.

## **SECTION B: SUBJECTIVE TYPE QUESTIONS**

**Answer any 3 out of the given 5 questions on Employability Skills.** **(3 x 2 = 6)**  
**Answer each question in 20-30 words.**

**Q7**

The communication cycle includes:

1. Sender – person who conveys the message.
2. Message – information shared.
3. Medium – channel of communication (e.g., email, voice).

4. Receiver – person who receives the message.
5. Feedback – response given by the receiver.

**Q8**

Goal setting means deciding what you want to achieve. SMART stands for:

- S – Specific: Clear goals
- M – Measurable: Can track progress
- A – Achievable: Realistic goals
- R – Relevant: Useful and important
- T – Time-bound: Completed within a time limit.

**Q9**

To insert an image in Impress:

1. Go to 'Insert' menu.
2. Click on 'Image'.
3. Choose the image file from your computer.
4. Click 'Open'. The image will appear on the slide.

**Q10**

Qualities of a good entrepreneur:

1. Risk-taking: Ready to face challenges.
2. Creativity: Comes up with new ideas.
3. Decision-making: Takes quick and smart decisions.
4. Leadership: Guides and motivates team members.

**Q11**

Green jobs are those that help protect the environment. Benefits:

1. Reduce pollution and waste.
2. Encourage use of renewable energy.
3. Promote sustainable development.
4. Provide employment in eco-friendly sectors.

**Answer any 3 out of the given 5 questions on Subject Specific Skills.**

**(3 x 2 = 6)**

**Q12**

Database operations are:

1. CREATE – Make new tables or databases.
2. READ – Retrieve data.
3. UPDATE – Modify existing records.
4. DELETE – Remove data from the table.

**Q13**

SQL Queries:

- (i) SELECT Employee\_num, HRA, Gross FROM Employee;
- (ii) SELECT Employee\_num, DA, PF\_Contribution FROM Employee WHERE DA >= 7000;

**Q14**

Java code output:

- 1
- 2
- 6

24

Explanation: The loop multiplies numbers from 1 to 4 to find factorial, printing each step.

#### Q15

Corrected Code:

```
int number = 1;
while (number <= 5)
{
    System.out.print("Square of " + number);
    System.out.println(" = " + number*number);
    number += 1;
}
```

Explanation: Removed extra '=' and semicolon in while loop.

#### Q16

DBMS and programming are used in:

1. Banking – to store account and transaction data.
2. Payroll – to calculate and store salary details.
3. E-commerce – to manage orders and customers.

**Answer any 2 out of the given 3 questions on Subject Specific Skills.**

**(2 x 3 = 6)**

#### Q17

Student Table structure:

Roll\_num INT, Name VARCHAR(30), Father\_name VARCHAR(30), Marks\_PreFinal INT, Marks\_Final INT.

Explanation: INT is used for numbers, VARCHAR for text.

#### Q18

Equivalent while loop:

```
int X=4,Y=3; int Pow=1; int i=1; while(i<=Y){ Pow*=X; i++; } System.out.println(Pow);
```

Explanation: The while loop performs same logic as the for loop to find power.

#### Q19

Use of DBMS & programming:

1. Banking – Stores customer data securely.
2. E-commerce – Tracks products, orders, and payments.
3. Payroll – Calculates employee salaries accurately.

**Answer any 3 out of the given 5 questions on Subject Specific Skills.**

**(3 x 4 = 12)**

#### Q20

Database Keys:

Primary key – Uniquely identifies each record.

Unique key – Ensures no duplicate but can have NULL.

Foreign key – Connects tables using common field.

Candidate key – Fields that can be a primary key.

#### Q21

Online course platforms:

- (a) Coursera – Offers online courses and certificates.

- (b) Udacity – Focus on technology skills.
- (c) Khan Academy – Free learning for all subjects.
- (d) Udemy – Paid and free skill-based courses.

### Q22

Java Program:

```
import java.util.*;
class StringLength{
    public static void main(String[] args){
        Scanner sc=new Scanner(System.in);
        String s1=sc.nextLine();
        String s2=sc.nextLine();
        System.out.println("Length 1: "+s1.length());
        System.out.println("Length 2: "+s2.length());
    }
}
```

Explanation: Takes two strings and prints their lengths.

### Q23

Program for multiplication table or string pattern:

- (a) If input is integer – print table up to 10.
- (b) If input is string – print pattern up to 4 letters.

Example:

```
a
ab
abc
abcd
```

### Q24

Java Program:

```
import java.util.*;
class CheckInput{
    public static void main(String[] args){
        Scanner sc=new Scanner(System.in);
        String s=sc.nextLine();
        if(s.matches("[0-9]+")) System.out.println("Number"); else System.out.println("String");
    }
}
```

Explanation: Uses regex to check if input is a number or string.

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