



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-4)

Date: 10-11-2025

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) Information is the processed data.
- (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) Coursera, edx, khan academy.
- (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) (a) 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

1. Receiving

- Pay full attention to the speaker without distractions.

2. Understanding

- Interpret and comprehend the message.

3. **Evaluating**
 - Analyze and assess the information objectively.
4. **Responding**
 - Can include **verbal responses** (acknowledging, asking questions) or **non-verbal responses** (nodding, facial expressions).
5. **Remembering**
 - Helps in following up or taking action later.

Q8

1. **S – Specific**
 - The goal should be clear and precise, not vague.
 - *Example:* “Increase website traffic by improving content quality,” instead of “Improve website.”
2. **M – Measurable**
 - You should be able to track progress and measure success.
 - *Example:* “Increase traffic by 20% in three months.”
3. **A – Achievable**
 - The goal should be realistic and attainable with the available resources and skills.
 - *Example:* Setting a target that is challenging but possible.
4. **R – Relevant**
 - The goal should align with your broader objectives or purpose.
 - *Example:* For a business, improving customer engagement is relevant to growth.
5. **T – Time-bound**
 - There should be a deadline or timeframe to achieve the goal.
 - *Example:* “Complete the marketing campaign by December 31.

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 num = 1;
while (num <= 5)
{
    System.out.print("Square of " + num);
    System.out.println(" = " + num*num);
    num += 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

For, i++, system.out.println

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

• **Exception:**

- An event that occurs during program execution that **disrupts the normal flow** of instructions.
- Examples: division by zero, file not found, invalid input.

• **Purpose of Exception Handling:**

- To **detect** errors.
- To **prevent program crashes**.
- To **allow the program to continue running** or terminate gracefully.

• **How it works in Java:**

- **try block:** Contains the code that might cause an exception.
- **catch block:** Contains code to handle the exception.

- **finally block (optional):** Contains code that always executes, regardless of whether an exception occurs.
- **throw / throws:** Used to explicitly **throw an exception**.

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 *****