



# B.K. BIRLA CENTRE FOR EDUCATION

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

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

SET-02/802

Class: XII (SUBJECT-4)

Date:

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.

## SECTION A: OBJECTIVE TYPE QUESTIONS

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

(4 x 1 = 4)

(i) Dhruv shifted all the loyal workers from his burnt factory to another unit to ensure their safety and job security. This shows his:

- |                                   |                       |
|-----------------------------------|-----------------------|
| a) Confidence in himself          | b) Proper supervision |
| c) Care for employees' well-being | d) Target planning    |

(ii) A sentence that expresses strong feelings and typically ends with an exclamation mark is called a/an

- \_\_\_\_\_.
- |                |                  |
|----------------|------------------|
| a) Declarative | b) Exclamatory   |
| c) Imperative  | d) Interrogative |

(iii) Which of the following statements is incorrect about physiological motives?

- a) They arise from bodily needs such as hunger and thirst.
- b) Psychological motives involve achievement and affiliation.
- c) Physiological motives push behaviour to fulfil essential physical requirements.
- d) They consist of emotional and mental traits.

(iv) Samaira invests her entire evening in solving mock tests because she wants to secure admission to her desired college. This situation reflects:

- a) Intrinsic motivation                      b) Extrinsic motivation  
c) Inspiration                                  d) Self-management

(v) A \_\_\_\_\_ sentence shares straightforward information and always ends with a full stop.

- a) Declarative sentence                      b) Interrogative sentence  
c) Imperative sentence                      d) Exclamatory sentence

(vi) \_\_\_\_\_ reorganizes selected data permanently, whereas filtering only hides unrelated entries without removing them.

- a) Charts    b) Predefined functions  
c) Sorting                                        d) Solver

**Q. (2) Answer any 5 questions out of the given 7 questions (5 x 1 = 5)**

- (i) Java supports a fixed number of primitive data types. How many are there, and write any two.  
(ii) A minimum set of fields that uniquely identify a row in a table is known as a \_\_\_\_\_.  
(a) Candidate Key                                  (b) Super Key  
(c) Alternate Key                                  (d) Primary Attribute  
(iii) What are aggregate functions ?  
(iv) In SQL, while applying condition on a group, instead of WHERE clause ..... clause is used.  
(v) ..... command displays list of databases available in the current server.  
(vi) Which of the following is **NOT** considered a relational operator?  
(a) >                      (b) =                      (c) +                      (d) !=  
(vii) Which SQL command will show all employee names that include the letter 'a' anywhere in the Name field?  
(a) SELECT Name FROM Employee WHERE Name LIKE "%a%";  
(b) SELECT Name FROM Employee WHERE Name = "%a%";  
(c) SELECT Name FROM Employee WHERE Name LIKE "a%";  
(d) SELECT Name FROM Employee WHERE Name IN ("a", "%a");

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

- (i) Which constraint ensures that a column cannot have NULL values?  
(ii) Name any two aggregate functions used in SQL?  
(iii) Consider the table, Cars given below:

Table: Cars

| MID  | NAME   | BRAND    | CAPACITY | COLOR |
|------|--------|----------|----------|-------|
| H101 | I20    | HYUNDAI  | 5        | WHITE |
| M012 | XUV500 | MAHINDRA | 5        | BLUE  |
| H131 | VERNA  | HYUNDAI  | 5        | BLUE  |

Identify the degree and cardinality of the table Vehicle.

- (iv) How can users improve the safety of their passwords when making online payments?  
a) Using personal info like birthdate  
b) Using a mix of letters, numbers, and symbols  
c) Writing the password on paper  
d) Sharing the password with friends  
(v) Consider the following table: PRODUCTS

| ID   | PNAME    | PRICE |
|------|----------|-------|
| P001 | PEN      | 50    |
| P002 | NOTEBOOK | 120   |

|      |        |    |
|------|--------|----|
| P003 | PENCIL | 20 |
|------|--------|----|

Identify the Primary key and Foreign key of the table ORDERS.

(vi) What kind of online courses does Khan Academy provide?

- (a) Free (b) Paid  
(c) Mobile wallets (d) Internet banking

(vii) What does the R in IRCTC stand for?

- (a) Robot (b) Rover  
(c) Railway (d) None of these

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

**(5 x 1 = 5)**

(i) 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

(ii) The \_\_\_\_\_ aggregate function in SQL is used to find the average values of a numeric column:

- (a) Average( ) (b) Avg( )  
(c) Mean( ) (d) Mid( )

(iii) NICNET – A national satellite based computer network in India was launched in the year :

- (a) 1986 (b) 1987 (c) 1990 (d) 1992

(iv) **State True or False :**

The customer can select the goods to be purchased and store them in their online shopping basket.

(v) Which Java statement is used to stop a loop before it finishes all its iterations?

- (a) break (b) exit (c) continue (d) stop

(vi) Adrisa wanted to book her flight to attend an international conference on “Women and AI”. She needs to book her tickets using an online reservation system. Help her to follow the correct sequence of steps to do the same.

- a. Make the payment  
b. Open the online reservation website  
c. Choose the dates of travel  
d. Browse and search for the required information  
a) B, D, C, A b) A, B, C, D  
c) A, D, C, B d) B, A, D, C

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

**(5 x 1 = 5)**

(i) **State True or False :**

Fixing of all the application bugs and fixing them is part of the Testing Phase of the project.

(ii) Aparna wanted to remove the table PERSONAL permanently from the database SCHOOL.

Write the command to help her do the same.

(iii) A named constraints in a table can be easily deleted or updated using the \_\_\_\_\_ command.

(iv) Differentiate between the following two java statements:

char Alpha= “A” ; //Statement #1  
String Name= “Ajay”; //Statement #2

(v) 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.  
 (vi) A Java compiler instead of translating Java code to machine language code, translates it into .....

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

**(5 x 1 = 5)**

- (i) What will be the result of the following code?  
**String s = "JAVA";**  
**System.out.println(s.length());**  
 (a) 3 (b) 4 (c) 5 (d) Error
- (ii) The wrapper class of the primitive type char in Java is .....
- (iii) Which keyword is used to prevent a method from being overridden in Java?  
 (a) static (b) final (c) private (d) protected
- (iv) What is the result of the following code snippet ?  
**String str = "Hello";**  
**System.out.println(str.indexOf('l'));**  
 (a) 1 (b) 2 (c) 3 (d) -1
- (v) Which Java loop checks the condition **after** executing the loop body at least once?  
 (a) for (b) while (c) do-while (d) None of these
- (vi) What property of a table is avoided with the use of primary key ?  
 (a) Data inconsistency (b) Data privacy breach  
 (c) Data redundancy (d) Online data search

## **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.**

- Q. (7)** Define : (a) active listening (b) Sentence
- Q. (8)** What are personality disorders ? Write about 2 such personality disorders.
- Q. (9)** Describe any two mathematical operators used in OpenOffice Calc.
- Q. (10)** Rohan has a successful start-up company. According to him “Decision Making is considered to be one of the important entrepreneurial competency”. Do you agree with Rohan’s opinion ? Justify.
- Q. (11)** Rohit noticed that plastic waste was a major issue in his school. He initiated a campaign encouraging students to carry reusable water bottles and lunch boxes. Which green skill is Rohit promoting through his initiative? Explain.

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

**(3 x 2 = 6)**

- Q. (12)** What are the benefit of naming a constraint?
- Q. (13)** Write SQL command to create the following table : (Table Name : Gadget)

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

**Q. (14)** Give the output of the following code segment of Java-

```
int x = 1;
while (x <= 5)
{
    System.out.print(x + " ");
    x += 2;
}
```

**Q. (15)** Rewrite the following code after correcting the syntax errors, underline each correction made:

```
int sum = 0;
for (int i = 1; i <= 4; i++)
{
    sum = sum + i;
}
System.out.println (sum);
```

**Q. (16)** What are comments in Java programs and why are they important?

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

**(2 x 3 = 6)**

**Q.(17)** Explain the following aggregate functions with examples.

(a) COUNT                      (b) SUM                      (c) MIN

**Q. (18)** Consider the following string variable :

```
String str1 = "Hello";
String str2 = "morning";
```

Write the code statements in Java :

- (a) To convert the first letter of a string variable "str1" into uppercase.
- (b) To convert combined length of string str1 and str2.
- (c) To display str1 and str2 after joining them.

**Q. (19)** What is the way in which DBMS and programming is useful in the application of banking, e-commerce and payroll management systems ?

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

**(3 x 4 = 12)**

**Q. (20)** Write short notes on the following :

(a) End User    (b) DB Administrator                      (c) Application Programmer    (d) System Analyst

**Q. (21)** Write the steps involved in online shopping.

**Q. (22)** Write a program in Java to take two strings as input and report their lengths.

**Q. (23)** Consider the following code and answer the following questions:

(a)

```
public class Main {
    static int MyMethod(int N) {
        return (N * N);
    }

    public static void main(String[] args) {
        System.out.println(MyMethod(7));
    }
}
```

i) Name the user defined method.

ii) What will be the output on executing the above code?

(b) What is exception handling in Java?

**Q.(24)** Give the output for the following code:

```
String myString = "Welcome to Java";  
System.out.println(myString.concat("Session"));  
System.out.println(myString.length());  
System.out.println(myString.replace("to", "2"));  
System.out.println(myString.toUpperCase());
```

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