B.K. BIRLA CENTRE FOR EDUCATION

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

NABET

INDIAN PUBLIC SCHOOLS' CONFERENCE

PRE BOARD 3 EXAM : 2025-26 (SET-02)
INFORMATION TECHNOLOGY (802)

Class: XII (SUBJECT-4)   **Time : 3 hrs.**
Date: **Max Marks: 60**
Admission No. : …..……………   **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) _____is an important element in communication as it helps in knowing whether the receiver has understood the message or not.

(ii) Personal hygiene is important because it helps us to :

(I) Stay healthy   (Il) Create a good image of ourselves

(III) Feel ashamed in public   (IV) Stay unhealthy

Choose the correct option :

(a) Both (I) and (II)   (b) Both (ID) and (IV)

(c) Only (IV)   (d) Only (III)

(iii) _____is about understanding ones own needs, desires, habits traits, behaviours and feelings.

(a) Result orientation   (b) Self-motivation

(c) Self-awareness   (d) Time management

(iv) What needs to be installed on your computer to run Impress?

(a) LibreOffice   (b) Microsoft Office

(c) Apple iOS   (d) Google

(v) The ability to work with others is

(a) Organisational skills   (c) Interpersonal skills

(b) Perseverance   (d) Initiative

(vi) In which year was the NAPCC launched?

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 of the following is not a Database Management System (DBMS)?

(a) MySQL   (b) Oracle

(c) DB2   (d) MS Word

(ii) In a relational model, a row in a relation is called a_____.

(iii) Alternate of if .... else is:

(a) switch.. case   (c) for

(b) while   (d) do while

(iv) A/An _____is a useful mechanism for effectively identifying and correcting logical errors in a Java program.

(a) Exception Handling   (b) Wrapper Class

(c) Method   (d) Assertion

(v) In which phase of web application development process, can one fix all the bugs and validate the modified code of the application?

(a) Requirement and definition phase   (b) Design phase

(c) Implementation phase   (d) Testing phase

(vi) While shopping online, one has the option to make the payment only when the product is delivered at the given shipping address. For this, one must select ... option on Payments page of the shopping website.

(vii) If you don't know the address of any website, you can use ....engine.

(a) Research   (b) Machine

(c) Enquiry   (d) Search

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 website   (b) Open your smartphone
        (c) Use your debit card   (d) None of these

    (ii)   In which phase of the web application creation is design of the application created ?
        (a) Requirement definition   (b) Implementation
        (c) Design   (d) Testing

    (iii) State True or False :
        Stanford University offers a wide range of undergraduate and graduate level courses for free through its OpenCourseWare platform.

    (iv) Shopping online is a ………………. task. It provides efficient search tools and filters that allow customers to easily locate products.

    (v)   In online reservation your transactions are …………………. to you. Online reservation systems are secured.

    (vi) Which method / function is used to concatenate two strings in Java?
        (a) Concat( )   (b) add( )
        (c) join( )   (d) merge( )

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

    (i) State True or False :
      A class cannot be declared as Private in Java.

    (ii)   What is the use of the main( ) method in a Java program?

    (iii) The result of the Java expression below is a
       (5>3) && (8<9)

    (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)   In self-referencing tables, a .....constraint can reference columns within the same table.
        (a) Primary key   (b) Check
        (c) Default   (d) Foreign key

    (ii) To retrieve all the columns in a table, we can use ....syntax.
        (a) SELECT $ FROM < tablename >;   (b) SELECT * FROM < tablename >;
        (c) SELECT * < tablename >:   (d) SELECT % FROM < tablename >;

(iii) Boolean data type can store of data.
    (a) 1 bit   (b) 32 bits
    (c) 8 bits   (d) 16 bits

(iv) What will be the output of Java Code snippet given below?
```
int a = 30;
int b = 10;
a - = b;
System.out.println(a);
```

(v) .... string function helps to find the character in a given index.
    (a) charAt ()   (b) indexOf()
    (c) length ()   (d) endsWith()

(vi) Give examples of any two online educational websites.

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 startup 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 = 10;
while (x <= 20)
{
    System.out.print(x + " ");
    x += 2;
}
```
Q.(15) What will be the output of the above code?
```
for (int i = 5; i <= 15; i += 2)
{
    System.out.print(i + " ");
}
```
Q.(16) Explain the use of any two Assignment operator used in JAVA?

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) Nitya is creating a Java program to calculate the area of a rectangle. She writes the following code:

```java
class Rectangle {
    int length;
    int width;

    int calculateArea() {
        return length * width;
    }

    public static void main(String[] args) {
        Rectangle r1 = new Rectangle();
        r1.length = 5;
        r1.width = 10;
        System.out.println("Area: " + r1.calculateArea());
    }
}
```

a) What does the method calculateArea() do in this program?
b) How is the object of the class created?
c) What will be the output of the program?

Q.(19) Explain the application of database management system in hotels.

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

Q.(20) Write a method Disp_sal( ) in Java to display Net Salary on the basis of Basic Salary, Allowance and Deductions to be passed as arguments of type double.
(Net Salary = Basic Salary + Allowance Deductions). If the Net Salary is more than 50,000, additional 2000 bonus is added. Also display Net Salary.

Q.(21) List and briefly explain the four main phases in the development of a web-based application project.

Q.(22) (a) What is the use of getter and setter method in Java?
          (b) What is OOPs?

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

```java
public class Main {
   static int New_Method(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:

```java
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 ************