



**COMMON PRE-BOARD EXAMINATION**  
**INFORMATION TECHNOLOGY-Code No. 802**  
**Class-XII-(2025-26)**



**SET: 1**

**Time allowed: 3 Hrs.**

**Maximum Marks: 60**

**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 contains 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 (1 x 4 = 4 marks)**

- i. Word that related to a person, place, thing, or idea are called \_\_\_\_\_. These are referred to as ‘naming words.’ 1
- a) Noun
  - b) Pronoun
  - c) Adjective
  - d) Verb
- ii. \_\_\_\_\_ includes activities for which there is no apparent reward but one derives enjoyment and satisfaction in doing them. 1
- a) Intrinsic Motivation
  - b) Extrinsic Motivation
  - c) Both a) and b)
  - d) None of the above
- iii. Ravi often feels a deep sense of emptiness and has a constant fear that people close to him will leave him. He struggles to maintain stable relationships and frequently experiences sudden mood changes. 1
- Which of the following personality disorders best fits Ravi’s symptoms?
- a) Borderline Personality Disorder
  - b) Dependent Personality Disorder
  - c) Avoidant Personality Disorder
  - d) Obsessive-Compulsive Personality Disorder
- iv. Riya, a Class XII IT student, maintains an Excel sheet containing details of 500 books in her school library. To make the list more organized and to view all books in alphabetical order by their titles, she decides to rearrange the data systematically. 1
- What should Riya do to arrange the records in a proper sequence?
- a) Apply filters
  - b) Sort the data
  - c) Use a password
  - d) Format the data
- v. In your school computer lab, the shared server’s temporary folder is getting filled with unnecessary files, causing the system to slow down. As a student, you know that only the system administrator has the right to delete files from the server. What would be the responsible actions you can take to help manage this issue? 1
- (A) Ask the lab in-charge or system administrator to increase the storage space
  - (B) Suggest ways to regularly clean or organize the files
  - (C) Delete important files randomly to make space
  - (D) Discuss the problem casually with friends
- a) (A), (B), (C)
  - b) (A), (B)
  - c) (A), (C), (D)
  - d) (A), (D)
- vi. The \_\_\_\_\_ set up by the Indian government, can be utilized to provide support activities like technology dissemination, training and awareness to the local youth and farmers for collection, storage and reuse of agro-waste. 1
- a) Farmer Vigyan Kendras
  - b) Krishi Vigyan Kendras
  - c) Indian Vigyan Kendras
  - d) None of the above

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

- i. In programming, the symbol ‘++’ is used to change the value of a variable by one step forward. What is this operator called? 1  
a) Increment Operator  
b) Decrements Operator  
c) Assignment Operator  
d) Modulus
- ii. What is a method in Java? 1
- iii. Which SQL query will display all employees whose salary is between 20000 and 40000? 1  
a) SELECT \* FROM Employee WHERE Salary IN (20000, 40000);  
b) SELECT \* FROM Employee WHERE Salary BETWEEN 20000 AND 40000;  
c) SELECT \* FROM Employee WHERE Salary >= 20000 OR Salary <= 40000;  
d) SELECT \* FROM Employee WHERE Salary RANGE 20000 TO 40000;
- iv. \_\_\_\_\_ are restrictions on the values, stored in a database based on the requirements. 1  
a) Method  
b) Constraints  
c) Properties  
d) None of the above
- v. Write any two Data Manipulation Language (DML) commands. 1
- vi. DEITY Stands for \_\_\_\_\_. 1  
a) Department of Electric and Information Technology  
b) Department of Electric and Indian Technology  
c) Department of Electronics and Information Technology  
d) None of the above
- vii. \_\_\_\_\_ website provides a single window access to information and services being provided by the various Indian Government entities. 1

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

- i. \_\_\_\_\_ portal is a one-point source to access all Indian Government websites at all levels and from all sectors. 1
- ii. \_\_\_\_\_ phase we identify the problem statement for which the web application is to be developed. Identify the scope of the problem. 1  
a) Requirements Phase  
b) Design Phase  
c) Implementation Phase  
d) Testing Phase
- iii. The ability of a computer to perform the same set of actions again and again is called \_\_\_\_\_. 1  
a) Looping  
b) Actioning  
c) Performing  
d) None of the above
- iv. In Java most common pre-built Java output methods are \_\_\_\_\_. 1  
a) System.out.println();  
b) Public class  
c) Public static void main(String[] args)  
d) None of the above

- v. Which of the following services are included in telephone banking? 1
- (A) Automatic balance voice out and last five transactions inquiry
  - (B) Inquiry for all term deposit accounts
  - (C) Direct cash withdrawal
  - (D) Utility bill payments

Choose the correct option:

- a) (A), (B) and (C) only
  - b) (A), (B) and (D) only
  - c) (B), (C) and (D) only
  - d) All (A), (B), (C) and (D)
- vi. Consider the following tables – STUDENTS and COURSES: 1
- Table: STUDENTS

ADMNO	NAME	COURSE ID	AGE	CITY
101	Meera	C001	17	Muscat
102	Arjun	C002	18	Sohar
103	Kavya	C001	17	Salalah
104	Nikhil	C003	18	Muscat
105	Riya	C002	17	Nizwa
106	Dev	C003	18	Sur

Table: COURSES

COURSE ID	COURSE NAME	DURATION	FEES
C001	AI	3 Months	300
C002	IT	4 Months	400
C003	Data Science	6 Months	600

Identify the Primary Key and Foreign Key of the table STUDENTS.

- vii. Consider a table named Student with the columns Student\_ID, Name, Course, Department, Year, and Age. The table contains seven rows of data. What is the degree and cardinality of the student table? 1

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

- i. One of the students from Class XII IT is developing a School Portal where students can check their attendance and marks online. First, they create the web pages (frontend) and set up the database (backend). Later, they connect the web pages to the database so that data can be stored and retrieved. 1
- In which phase of the web application project is this frontend-backend connectivity done?
- ii. What data type has a fixed length in the database? 1
- a) Varchar(n)
  - b) Char(n)
  - c) Longvarchar(n)
  - d) None of the above
- iii. Which of the following is not true for Online Education? 1
- a) The student can access study materials and recorded lectures online.
  - b) Once a course is enrolled, the student cannot ask questions or interact with the teacher.
  - c) The student can submit assignments and take quizzes online.
  - d) The student can choose courses and track their progress through the online platform.
- iv. State TRUE or FALSE 1
- Private data members of a class cannot be accessed outside the class however; you can give controlled access to data members outside the class through getter and setter methods.
- v. Which of the following will display the average and highest value of the column Fee from the table COACH? 1
- a) SELECT AVG(FEE), HIGH(FEE) FROM COACH;
  - b) SELECT AVERAGE(FEE), MAXIMUM(FEE) FROM COACH;

- c) SELECT MEAN(FEE), MAX(FEE) FROM COACH;  
d) SELECT AVG(FEE), MAX(FEE) FROM COACH;
- vi. Predict the output: 1  
System.out.print("Hello");  
System.out.println("Java");

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

- i. State True or False. 1  
In the Design Phase of the web application development process, the problem statement is identified for which the application will be developed.
- ii. \_\_\_\_\_ is the SQL command that can be used to retrieve specific records or information from one or more tables in a database based on given conditions. 1
- iii. Which SQL command would you use if you need to modify the existing structure of a table by adding a new column named "Age" with data type INTEGER to the table Teacher without deleting or altering the existing data? 1
- iv. Which of the following is a looping statement in Java? 1  
a) switch  
b) for  
c) if  
d) main
- v. Which access modifier in Java is used to make a data member or a method member of a class visible only within the class? 1  
a) private  
b) Public  
c) protected  
d) default
- vi. What is Java IDE? 1

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

- i. What are the naming rules we have to follow to declare a variable. 1  
a) Variable names can begin with either an alphabetic character, Underscore or a dollar sign.  
b) Space is not allowed in variable names  
c) Reserved words cannot be used as a variable name  
d) All of the above
- ii. The \_\_\_\_\_ is used to execute a block of code matching one value out of many possible values. 1
- iii. What is a web-based application? 1
- iv. Rashmi is unable to leave a blank in the Salary column of the Employee table. Which constraint is applied on the field salary? 1  
a) NOT NULL  
b) DEFAULT  
c) CHECK  
d) NOT BLANK
- v. Which of the following is not a DDL command? 1  
a) DROP  
b) ALTER  
c) CREATE  
d) UPDATE
- vi. Give examples of two online education sites. 1

## SECTION B: SUBJECTIVE TYPE QUESTIONS

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

- Q.7** Write any two ways to maintain positive attitude. 2
- Q.8** Name any two types of Entrepreneurs. 2
- Q.9** Explain the MINTS rule of capitalization with examples for each letter. 2
- Q.10** To create a digital presentation, suggest the names of any two popular presentation software. 2
- Q.11** Explain the importance of green jobs in reducing the emission of greenhouse gases. 2

**Answer any 3 out of the given 5 questions (2 x 3 = 6 marks)**

- Q.12** List any four advantages of using a DBMS and give a short explanation for each. 2
- Q.13** An IT company TechMart Ltd. maintains an SQL database for its products. The table PRODUCTS has the following structure: 2

Product_id	Name	Price	Category
101	Laptop	55000	Electronics
102	Chair	2500	Furniture
103	Keyboard	1200	Electronics
104	Notebook	50	Stationery
105	Mouse	800	Electronics

- a) Write an SQL query to display all products whose Name contains the letter 'o'.  
b) Write an SQL query to increase the Price of all products in the table by 10%.
- Q.14** State the two different ways by which a thread can be created in Java for achieving multitasking. 2
- Q.15** Give the output of the following code: 1+1
- ```
class XII_IT {  
    public static void main(String[] args) {  
        int a = 32;  
        System.out.println("a mod 10 =" + a % 10);  
        System.out.println("a div 10 =" + a / 10);  
    }  
}
```
- Q.16** Write any two uses of database applications in the Government Sector. 2

**Answer any 2 out of the given 3 questions (3 x 2 = 6 marks)**

- Q.17** Explain the use of any three aggregate functions in SQL. 3
- Q.18** Consider the following statement: 3
- ```
String mystring = "XII-IT-TermI-Examination";
```
- Write a single line of Java code using String methods to perform each of the following operations:
- a) Convert mystring to uppercase.  
b) Check whether mystring contains the word "Exam".  
c) Add a new string "All the Best" at the end of the original string.

- Q.19** a) Define Referential Integrity. 1+2  
 b) Consider the TEACHER table and do the following:

TID	TNAME	DOA	DEPT	PAY
501	Asha Kumar	2015-06-12	Computer	480000
502	Meera	2013-08-25	English	350000
503	Ravi	2016-02-19	Science	420000
504	Karan	2011-11-05	Computer	510000
505	Pooja	2014-03-28	Maths	390000
506	Arun	2010-09-17	English	310000

DOA-Date of Appointment

- (i) To display the minimum PAY of teachers whose Date of Appointment is after '2012-01-01'.  
 (ii) To display all the teacher names in ascending order of their PAY.

**Answer any 3 out of the given 5 questions (4 x 3 = 12 marks)**

- Q.20** Consider the HIGHERSTUDIES table and do the following. 1+1+1+1

Course_ID	Course_Name	Stream	Duration	Fee
101	B.Tech	Engineering	4 Years	250000
102	B.Sc	Science	3 Years	120000
103	B.A	Arts	3 Years	100000
104	B.Com	Commerce	3 Years	110000
105	BBA	Management	3 Years	150000

- a) Write an SQL command to add a new column named University to the HigherStudies table.  
 b) Display all course names and fees where the fee is between ₹1,00,000 and ₹2,00,000.  
 c) Display all courses in descending order of fees.  
 d) Display the unique stream names from the HigherStudies table.

- Q.21** a) Describe how Database Management Applications can be used in the Hotel sector. 2+2  
 b) Online shopping is playing a vital role in making our country a digital country. Write any two situations when online shopping can be more beneficial as compared to traditional offline shopping. Also discuss any two main precautions to be taken while shopping online.

- Q.22** Differentiate between Entry controlled loop and Exit controlled loop with an example. 4

- Q.23** a) The following code has some error(s). Rewrite the correct code underlining all the corrections. 2+2

```

Int x, y;
y = 90;
For (x = 10; x <= 9; x++) {
    y = y - 7;
}
system.out.displayln(y);

```

- b) Write a user defined method that returns product of two numbers.

- Q.24** a) Explain data members and member methods with the help of an example. 2+2  
 b) Write the Java statements for the following tasks related to array creation:  
 (i) Create an array named Marks that stores the values 40, 50, 60, 70, and 80.  
 (ii) Display all the elements of the Marks array using a loop.