

QUESTION BANK
CLASS-XII
SUB- INFORMATICS PRACTICES

1. Define the following-
(i) Repeaters (ii) Gateway (iii) Bridge (iv) Hub (v) Switch
2. What is the difference between LAN and Internet?
3. Expand the terms-
OSI, FLOSS, FSF, GNU, GPL, W3C, OSS
4. What are different types of standards?
5. What do you mean by topology? What are the most popular topology?
6. What is the difference between WAN and MAN?
7. What are the components required for networking?
8. How is free software different from freeware?
9. Compare and contrast-
 - (i) TTF and OTF
 - (ii) Static and dynamic fonts
10. What is the significance of Unicode?
11. What is object oriented programming?
12. What is the relationship between properties, methods and events?
13. Name the character set supported by java.
14. Name the eight primitive java types.
15. What is the effect of absence of break in a switch statement?
16. What is the significance of a null statement?
17. What are iteration statements? Name the iterative statements provided by java.
18. What is meant by entry controlled loop and exit controlled loop? Explain with example.
19. How would you set a label to have both an image as well as text?
20. What is the difference between a text field and password field when both can obtain text from user?
21. Name the swing API classes that create
 - (i) A list
 - (ii) A combo box
22. How are following passed in java
 - (i) Primitive types
 - (ii) Reference types
23. What is inheritance? Name its various forms.
24. What is an abstract class?
25. What are literals in java? How many types of literals are allowed in java?
26. Rewrite the following fragment using switch:

```
if (ch= = 'E')
    eastern++;
if (ch= = 'W')
    western++;
if (ch= = 'N')
    northern;
if (ch= = 'S')
    southern;
else
    unknown++;
```

27. How many times are the following loops executed?

```
(a) x=5;y=50;
    while(x<=y)
    {
        x=y/x;
    }

(b) int m=10,n=7;
    while(m%n>=0)
    {
        m=m+1;
        n=n+2;
    }
```

28. Rewrite the following while loop into a for loop

```
int stripes=0;
while (stripes<=13)
```

29. In the code fragment given below, what happens when choice equals 5?

```
num=0, num2=0;
If (choice= = 1)
{
    Num=11;
    Num2=110;
}
else if (choice= = 2)
{
    num=20;
    num2=220;
}
```

```
jOptionPane.showMessageDialog (null,"num =" + num +", num2 =" + num2);
```

30. What is meant by implicit and explicit type conversion?

31. What will be the output of following code fragment when the value of ch is

(a) 'A' (b) 'C' (c) 'D' (d) 'F' ?

32. Predict the output of following code fragment:

```
int n=0,j=7,i=3;

if(i>2) {
    n=1;
    if(j>4)
        n=2;
    else
        n=3;
}
else
{
    n=4;
    if(j%2 >=2)
        n=5;
    else
        n=6; }

jOptionPane.showMessageDialog(null,n);
```

33. Identify the possible error(s) in the following code fragment and correct the code.

```
f=1;
for int a40;(a);a--
f*=a;
s=0;
for(int a=1;a<40/a++)
s+=a;
```

34. What are top level containers? What is their significance?

35. What is dispose () used for?

36. Compare and contrast a list box and combo box.

37. Define method.

38. What are actual and formal parameters of a method?

39. How many values can be returned from a method?

40. Differentiate between call by value and call by reference.

41. How do we invoke a constructor?

42. How are private members different from public members of a class?

43. What is a package?

44. What is an interface?

45. Write code to obtain two values , litres consumed and kilometers traveled and display kilometer per litre. Use dialogs only.

46. Differentiate between component and a container.

47. A library charges a fine for every book returned late. Radhika developed a GUI application for her library as shown below:

The screenshot shows a GUI application with a light beige background. It contains the following elements:

- Book Name**: A text label followed by a white rectangular input field.
- Return Date**: A text label followed by a white rectangular input field.
- Current Date**: A text label followed by a white rectangular input field.
- Calculate Time**: A button with a blue border and rounded corners.
- Calculate Fine**: A button with a blue border and rounded corners.
- Time Exceeded**: A text label followed by a white rectangular input field.
- Fine**: A text label followed by a white rectangular input field.

For first 5 days the fine is 1 rupee, for 6-10 days fine is 2 rupee and above says fine is 2 rupee per day.

- (i) Write the code to display current day in text field for current date.
- (ii) Write code to do the following
 - (a) When “Calculate time” button is clicked, the number of days the member is late to return the book is calculated as number of days between current date and return date and it should be displayed in text field for “time exceeded”
 - (b) When “Calculate Fine” button is clicked, fine is calculated on the basis of time exceeded as displayed in text field for Fine.

48. Consider the following application

The image shows a Java Swing window with a light beige background. It contains three text input fields: 'Name', 'Age', and 'Aggregate'. The 'Age' field is followed by the label 'Sex' and two radio buttons, one labeled 'Male' and one labeled 'Female'. At the bottom of the window, there are three buttons: 'Insert', 'Reset', and 'Exit'.

The application works on the stud table of test database, having following structure:

name	varchar (50)
age	int (3)
sex	char (1)
aggregate	int (11)

The text fields on the form have names as nameTF, ageTF and aggrTF respectively. The radio buttons have names as maleRB, and femRB.

- (a) Write code for the ActionPerformed() method of insert button so as to insert the data entered in the form into table stud. Make sure to enter value for field Sex as ‘M’ or ‘F’.
- (b) Write code for the Reset button so as to reset the entire form.
- (c) Upon clicking Exit button, it should firstly display a message dialog that shows the current number of records in stud table and then should end the application.

49. Find errors in the following code:

```
import java.sql.*;
.
.
try {
    connection con=DriverManager.getConnection("jdbc:mysql://localhost/test",root,"wxyz");
    Statement stmt=con.createStatement( );
    sql= "SELECT empno,enmae,job,sal From Empl;";
    ResultSet rs=stmt.executeQuery(sql);
}
catch (Exception e) { }
```

50. Write code to connect to a MYSQL database namely School and then fetch all those records from table Student where grade is 'A'.

51. What are the steps to connect to a database with a java application?

52. What is database connectivity? How is database connectivity useful?

53. How can you make the connections? Write statements.

54. Expand ODBC and JDBC.

55. What is result set?

56. Which methods are used to execute SQL queries?

57. Write code to add a row to a table named as table1 containing details like name , rollno.

58. What is the difference between general purpose dialog and a predefined dialog?

59. Write any 5 common properties of list and combo box

60. Name the package you need to import for performing database connectivity.

61. What is a URL? What are its components? Exemplify.

62. Explain Client- Server computing.

63. Name any three popular Web Servers.

64. Name different control types supported by HTML forms.

65. What types of lists are supported by HTML? Explain.

66. Which tag is used to create tables in HTML? Write its attributes.

67. Write HTML code to produce these controls

(i) A text box (ii) A text area with 10 rows and 30 columns.

68. What is XML? Compare HTML and XML briefly.

69. What is declared empty tag in XML?

70. What is DTD?

71. Differentiate between DDL and DML commands of SQL.

72. What do you mean by foreign key? How do you define a foreign key in your table?

73. What is a constraint? Name all constraints that you can apply to enhance database integrity.

74. If the columns value is skipped in an INSERT command, which value is inserted in the database?

75. What is SQL function? What are its types?

76. Differentiate between CHAR and VARCHAR data types.

77. Discuss various properties of the transactions. Why these are considered very important?

78. write SQL queries for the following:

(a) Insert all those records of table Accounts into table Pending where amt_outstanding is more than 10000.

(b) Increase salary of employee records by 10%.(table employee)

(c) Add a constraint in table Empl that declares column Grade not null.

(d) Drop the table Empl.

79. Consider the following tables Product and Client. Write SQL commands for the statement (i) to (iv) and give outputs for SQL queries (v) to (viii)

Table: PRODUCT

P_ID	Product Name	Manufacturer	Price
TP01	Telcom Powder	LAK	40
FW05	Face Wash	ABC	45
BS01	Bath Soap	ABC	55
SH06	Shampoo	XYZ	120
FW12	Face Wash	XYZ	95

Table: CLIENT

C_ID	Client Name	City	P_ID
01	Cosmetic Shop	Delhi	FW05
06	Total Health	Mumbai	BS01
12	Live Life	Delhi	SH06
15	Pretty	Delhi	FW12
16	Dreams	Banglore	TP01

- (i) To display the details of those Clients whose city is Delhi?
- (ii) To display the details of Products whose Price is in the range of 50 to 100.
- (iii) To display the Client Name, City from table Client, and Product Name and Price from table Product, with their corresponding matching P_ID.
- (iv) To increase the Price of all Product by 10.
- (v) SELECT DISTINCT city from Client;
- (vi) SELECT Manufacturer, Max(Price), Min(Price), Count(*) From Product Group By Manufacturer;
- (vii) SELECT ClientName, ManufacturerName From Product, Client Where Client.Prod_Id= Product.P_Id;
- (viii) Select ProductName, Price*4 from Product;

80. Which command is used in MySQL to make the changes in database permanent?
81. Can a table have multiple primary keys? Can it have multiple foreign keys?
82. What is the purpose of DROP TABLE command in SQL? How is it different from DELETE command?
83. Write SQL statement to display the last names of those employees who have the letter "A" as the second character in their names?
84. You need to add a NOT NULL constraint to the EMAIL column in the EMPLOYEES table. Which clause should you use?
85. Name the clause that you use to exclude group results.
86. Differentiate between primary key and alternate key.
87. Define (i) e-governance (ii) e-business (iii) e-learning
88. Define an entity. What is meant by entity type and entity instance?
89. How would you change a column from Varchar (10) to Varchar (50)?
90. How do you concatenate strings in MYSQL? Give Example.

91. What do % and _ mean inside LIKE statement?
92. What do you understand by a database transaction?
93. What does transaction ROLLBACK indicates?
94. What TCL commands are supported by SQL?
95. What is a Save Point?
96. What is a Table alias? What is the purpose of Table alias?
97. What is MySQL Server?
98. identify the error:
DELETE ALL FROM TABLE EMPL;
99. What is the error in following statement?
UPDATE EMPL;
100. What will be the output of following code?
SELECT CONCAT (LOWER ('Class'), UPPER ('xii'));