| Marks :75 | (CLASS-XII) PART-II | Time: 2:30 Hours |
|---|---|---|

**Theory: 75 + Practical : 25 Total:100**

| Topics | Weightage % age |
|---|---|
| **Database Basics**<br>Introduction to Database Concepts, Database concepts, Terminology and Usage. Database Design and Table Creation, Formatting a Table, Relationships, Locating and Replacing information, Creating Simple Queries, Creating Calculated Fields. Introducing Forms, Formatting and Creating Forms, Formatting and Creating Reports | 40 |
| **Programming using C**<br>**OR**<br>**Programming using VISUAL BASIC**<br>**Option I: Outline for C**<br>Characteristics of High Level Porgramming Languages, Basic Structure of Program. Creating, Editing and Saving a Source Program, Compiling, Linking and Executing A Program, Variables: character, integer, long integer, floating point, double precision, Input/Output, printf, scanf, format Specifier, Field Width Specifier. Operators: Arithmetic, Relational, Logical Operators, Comments, Loops: for loop, while loop, do-while, Decision: if Statement, if-else Statement, else-if, switch Statement, Conditional Operator, Importance of Functions, Simple Functions, Function Passing Arguments and Returning Values, Open File, Read, Write, Append and Close File<br>***OR***<br>**Option II: Outline for Visual Basic**<br>I/O Statements, Control Statements, Working with Forms<br>Variables and Arrays, Functions and Procedures, Basic ActiveX Controls, Drawing with Visual Basic, Advanced ActiveX Controls, Database Programming with Visual Basic, The Active Data Objects, Scripting Objects, Visual Basic and the Web | **60** |

## LIST OF PRACTICALS FOR CLASS-XII (PART – II )

**1.** Perform the following tasks and write down the stepwise procedure.
Create a new blank database with file name Employees.
Create a new table in Design view and add fields to the table as follows:
Make the Social Security No field primary key and save the table as Employees.
Open the table in Datasheet view and add five records in the table.

**2.** Perform the following tasks and write down the stepwise procedure.
Create the table and add the records.
Open Employees table and change Field Size property of Social Security No to 11.
Change Decimal places property of Salary field to 0 (Zero).
Choose Short Date Form Format property box of Birthdate field.
Add a caption to each field as shown below and save changes:
Set Department field to require.

**3.** Perform the following tasks and write down the stepwise procedure.
Create the table and add the records.
Apply validation rule on social security that it must not be zero. It should display 'No valid No' if the user enters wrong data.
Hide last name. First name. Social security no and Department.
Delete record having DOB13-Jan-83.
Rename Employees table to 'Workers Data'.
Freeze the salary column.
Find record having name Raza & Replace it with Talha.
Sort Department column in descending order.

**4.** Perform the following tasks and write down the stepwise procedure.
Create a table named 'Instructor' (Id, Name, City, and Phone).
Add Input mask property to Phone field so it takes numbers in (+092) 41 733474 formats.
Add five records in the table.

**5.** Perform the following tasks and write down the stepwise procedure.
Create a table called Workshop Registration
Insert ten records in the table.

Create a query that shows First Name, Last Name and Workshop for workshop participants.

**6.** Perform the following tasks and write down the stepwise procedure.
Create a table Employee with the following structure (EmpNo as primary key).
Add given records in table.

**7.** Perform the following tasks and write down the stepwise procedure.
Create a table called Client
Enter the following records in the table:
Create query in design view to display the entire salesmen who are located in FSD.
Create query in design view to find out the salesman who stays in a city whose second letter is 'H'.

**8.** Perform the following tasks and write down the stepwise procedure.
Create a table Employee
Insert five records in table
Create a query to display calculated field of total salary using expression builder:
Total Salary = Salary + Bonus
Create a report using auto report.

**9.** Perform the following tasks and write down the stepwise procedure.
Create the tables in Access
Employee (Empld, EmpName, Job Sal DeptNo)
Department (DeptNo, Dname, Loc)
Develop relationship between both the tables.
Insert the following records in Department table
Insert the following records in Employee table
Write a query to display the minimum salary earned by clerk.
Write a query to calculate the average salary of all employees.
Write a query to list the employee names and salary increased by 15%.

**10.** Perform the following tasks and write down the stepwise procedure.
Create a table called student
Make sure that AdmDate is less than or equal to current date.
Create a columnar form to input data to insert five records.
Create a report using the Report wizard.

**11.** Write a program that inputs Name, Age and Address from the user and displays it on the Screen.

**12.** Write a program that inputs Base and Height from the user and Calculates area of a triangle by using the formula Area / ½ *BASE* height.

**13.** Write a program that inputs temperature from the user in Celsius and Converts it into Fahrenheit using the formula F = $\frac{9}{5}$*C+32.

**14.** Write a program that inputs 4 number and calculates the sum, average and product of all the numbers.

**15.** Write a program that inputs radius from the user and calculates area and circumference of circle using formula area = = $\pi R^2$and Circumference =$2\pi R$.

**16.** Write a program that inputs a three digits number from the user and displays it in reverse order. For example, if the user enter 123, it displays 321.

**17.** Write a program that inputs miles from the user and converts miles into kilometers. One mile is equal to 1.609 kilometer.

**18.** Write a program that finds area of triangle when three sides A, B and C of the triangle are given. It inputs value of a A, B and C. Formula of the area of Triangle is AREA =$\sqrt{s(s-a)}(s-b)(s-c)$WHERES =$(a+b+c)/2$.

**19.** Write a program that inputs temperature in Fahrenheit and converts it into Celsius.

**20.** Write a program that inputs a number and finds whether it is even or odd using If-Else structure.

**21.** Write a program that inputs a number from user and determines whether it is positive, negative or zero.

**22.** Write a program that inputs test score of a student and displays his grade on the following criteria.

**23.** Write a program that inputs three numbers and displays the smallest number by using nested if condition.

**24.** Write a program that inputs a character and displays whether it is vowel or consonant using switch statement.

**25.** Write a program that displays counting from 1 to 10 using while loop.

**26.** Write a program that displays first 5 numbers and their sum using while loop.

**27.** Write a program that displays first five numbers with their squares using while loop.

**28.** Write a program that inputs two number and exchanges their value. The program should display the value sof variables of before and after exchanges.

**29.** Write a program that inputs a number from the user and display a table of that number using while loop.

**30.** Write a program that inputs a number from the user and displays the factorial of that number using while loop.

**31.** Write a program that displays Sum of the following series using while loop.1 + 1/2 + 1/4 + 1/6 + … + 1/100.

**32.** Write a program that displays sum of the following series using while loop.1 + 1/3 + 1/5 + 1/7 + … + 1/99.

**33.** Write a program that inputs starting and ending point from the user and displays all odd numbers in the given range using do-while loop.
**34.** Write a program that inputs two numbers from user and displays the result of first number raise to the power of second number using do while loop.
**35.** Write a program that produces the following output.
**36.** Write a program to display alphabets from A to Z using for loop.
**37.** Write a program that inputs a number from the user and displays the factorial of that number using do while loop.
**38.** Write a program that displays product of all odd numbers from 1 to 10 using for loop.
**39.** Write a program that inputs a number from the user and displays the factorial of that number using for loop.
**40.** Write a program that inputs table number and length of table and then displays the table using for loop.
**41.** Write a program that inputs a positive integer number from the keyboard and displays it's in reverse number. For example, the reverse of 345 is 543.
**42.** Write a program to calculate and display the sum of following series using for loop$x + x^2 + x^3 \ldots x^n$.
**43.** Write a program that displays the following shape using while loop.
**44.** Write a program to calculate and display the sum of the following series using for loop: 1/2 + 2/3 + 3/4 + … + 99/100.
**45.** Write a program that inputs five values and displays their squares and cubes using loop.
**46.** Write a program that displays the following shape using nested loops. The outer loop should be for loop and inner loop should be while loop.
**47.** Write a program that displays the following block using nested for loop.
**48.** Write a program that displays the following shape using nested for loops.
**49.** Write a program that displays the following shape using nested for loops.
**50.** Write a program that displays the following shape using nested for loops.
**51.** Write a program that inputs an integer and displays whether it is a prime number or not.
**52.** Write a program that inputs two numbers in main function and passes these numbers to a function. The function displays the maximum number.
**53.** Write a program that inputs two numbers in main function and passes the number to a function. The function displays the factorial of that number.
**54.** Write a program that inputs a number in main function and passes the number to a function. The function displays the factorial of that number.
**55.** Write a program that inputs two numbers in main function and passes them to a function. The function displays first number raised to the power of second number.
**56.** Write a program that inputs two integers and then passes them to four functions add (), subtract (), multiply () and divide () one by one.
**57.** Write a program that finds sum of the squares of integers from 1 to n. Where n is a positive value entered by the user (i.e. sum = 12 + 22 + 33 + ..... + n2).
**58.** Write a program to calculate and display the sum of the following series using for loop: 1 + 2x + 3x2 + 4x3 + 5x4.
**59.** Write a program that displays the following output using nested for loop.
**60.** Write a program that displays the following shape using nested for loop.
**61.** Viva voce

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