

GURU JAMBHESHWAR UNIVERSITY OF SCIENCE & TECHNOLOGY, HISAR

DIRECTORATE OF DISTANCE EDUCATION

PRACTICAL LIST FOR ODD SEMESTERS

Session 2015-16

(PGDCA/MCA/MSC (CS))

SEMSTER – 1st

IT Lab (MS-01)

1. Study of various input devices.
2. Study of various output devices.
3. Study of various MS DOS commands.
4. Study of Microsoft word.
5. Study of Microsoft access.
6. Study of Microsoft power point.
7. Study of Microsoft Excel.
8. Introduction to visual basic.

Programming Lab (MS-02)

1. Write a program to find Sum and average of two numbers.
2. Write a program to calculate simple interest.
3. Write a program to print memory occupied by int, float and char variables.
4. Write a program to check Palindrome number.
5. Write a program for Changing (swapping) value of two variables without use of third variable.
6. Write a program to print all prime numbers from 1 to N.
7. Write a program to check whether number is POSITIVE, NEGATIVE or ZERO until user doesn't want to exit.
8. Write a program to swap two numbers using pointers.
9. Write a program to read and print student details using structure pointer, demonstrate example of structure with pointer.
10. Write a program to demonstrate example of array of pointers.

Prepared By: Dr. Dharmender Kumar
Associate Professor
Deptt. of CSE
GJUS&T, Hisar

SEMSTER – 3rd

DBMS Lab (MS-11)

1. Introduction to SQL.
2. To study Basic SQL commands and execute the following queries using these commands:
 - Create a database named 'Employee'.
 - Use the database 'Employee' and create a table 'Emp' with attributes 'ename', 'ecity', 'salary', 'enumber', 'eaddress', 'deptname'.
 - Create another table 'Company' with attributes 'cname', 'ccity', 'empnumber' in the database 'Employee'.
3. To study the viewing commands (select, update) and executes the following queries using these commands:
 - Find the names of all employees who live in Delhi.
 - Increase the salary of all employees by Rs. 5,000.
 - Find the company names where the number of employees is greater than 10,000.
 - Change the Company City to Gurgaon where the Company name is 'TCS'.
4. To study the commands to modify the structure of table (alter, delete) and execute the following queries using these commands:
 - Add an attribute named 'Designation' to the table 'Emp'.
 - Modify the table 'Emp', Change the data type of 'salary' attributes to float.
 - Drop the attribute 'deptname' from the table 'emp'.
 - Delete the entries from the table 'Company' where the numbers of employees are less than 500.
5. To study the commands that involve compound conditions (and, or, in, not in, between, not between, like, not like) and execute the following queries using these commands:
 - Find the names of all employees who live in 'Gurgaon' and whose salary is between Rs. 20,000 and Rs. 30,000.
 - Find the names of all employees whose names begin with either letter 'A' or 'B'.
 - Find the company names where the company city is 'Delhi' and the number of employees is not between 5000 and 10,000.
 - Find the names of all companies that do not end with letter 'A'.
6. To study the aggregate functions (sum, count, max, min, average) and execute the following queries using these commands:
 - Find the sum and average of salaries of all employees in computer science department.
 - Find the number of all employees who live in Delhi.
 - Find the maximum and the minimum salary in the HR department.
7. To study the grouping commands (group by, order by) and execute the following queries using these commands:
 - List all employee names in descending order.
 - Find number of employees in each department where number of employees is greater than 5.
 - List all the department names where average salary of a department is Rs.10,000.
8. To study the commands involving data constraints and execute the following queries using these commands:

- Alter table 'Emp' and make 'enumber' as the primary key.
- Alter table 'Company' and add the foreign key constraint.
- Add a check constraint in the table 'Emp' such that salary has the value between 0 and Rs.1,00,000.
- Alter table 'Company' and add unique constraint to column cname.
- Add a default constraint to column 'ccity' of Table Company with the value 'Delhi'.

9. To study the commands for aliasing and renaming and execute the following queries using these commands:

- Rename the name of database to 'Employee1'.
- Rename the name of table 'Emp' to 'Emp1'.
- Change the name of the attribute 'ename' to 'empname'.

10. To study the commands for joins (cross join, inner join, and outer join) and execute the following queries using these commands:

- Retrieve the complete record of an employee and its company from both the table using joins.
- List all the employees working in the company 'TCS'.

Computer Graphics Lab (MS-13)

1. Study of basic graphics functions defined in "graphic.h".
2. Write a program to draw a line using Bresenham's algorithm.
3. Write a program to draw a hut or another geometrical figure.
4. Write a program to draw an Ellipse using midpoint algorithm.
5. Write a program to draw a circle using trigonometric method.
6. Write a program to implement polygon filling.
7. Write a program to perform line clipping.
8. Write a program for hidden surface removal from 3D objects.
9. Write a program for 2D transformations- translation, scaling, and rotation.
10. Write a program to study 3D transformation.

Prepared By: Prof. Dharminder Kumar
Professor
Deptt. of CSE
GJUS&T, Hisar

SEMSTER – 5th

C Sharp (C#) Lab

1. Define two classes, one with a method to display the string “C Sharp” and the other to display the string “Programming”. Write a program using these classes to display a single line output as follows: C Sharp Programming.
2. Given the radius of the circle as 12.5 centimeters, write a program to compute its circumference and area and display their values.
3. Write a program to find the sum of all integers greater than 100 and less than 200 that are divisible by 7.
4. Write a program to print the following outputs using for loops:

```
1
2 2
3 3 3
4 4 4 4
5 5 5 5 5
6 6 6 6 6 6
```

5. Write a method Prime that returns true if its arguments is a prime number and returns false otherwise. Test your method with suitable program.
6. Write a program that stores a list of numbers in an array and computes the maximum and minimum values in the list.
7. Design a class to represent a bank account. Include the following members:

Data Members

- Name of the depositor
- Account number
- Type of account
- Balance amount in the account

Methods

- To assign initial values
- To deposit an amount
- To withdraw an amount after checking balance
- To display the name and balance

Write a program to demonstrate the working of the various class members.

8. Write a program to illustrate the Polymorphism.
9. Write a program to illustrate the method overriding.
10. Write a program that illustrates the application of multiple catch handlers.