| 1. | Develop a C++ code to find area circle,rectangle and volume of cylinder using the concept of multilevel inheritance. |
| --- | --- |
| Sample Input / output | Getting the radius of the circle  Enter the radius: 4  The area = 48  Getting the length and breadth of the rectangle  Enter the length : 6  Enter the breadth : 7  The area = 42  Getting the height and radius of the cylinder  Enter the radius: 3  Enter the length : 4  Enter the breadth : 5  The volume of the cylinder is: 108 |
| Test Case | 1. Getting the radius of the circle  Enter the radius :4.5  Getting the length and breadth of the rectangle  Enter the length :7.5  Enter the breadth:10.6  Getting the height and radius of the cylinder  Enter the radius : 7.8  Enter the length :75.6  Enter the breadth :88 |
| 2.Getting the radius of the circle  Enter the radius :4.5  Getting the length and breadth of the rectangle  Enter the length :pry  Enter the breadth:10.6  Getting the height and radius of the cylinder  Enter the radius : 7.8  Enter the length :75.6  Enter the breadth :rty |
| 3.Getting the radius of the circle  Enter the radius :100  Getting the length and breadth of the rectangle  Enter the length :203  Enter the breadth: rte123  Getting the height and radius of the cylinder  Enter the radius : 7.8  Enter the length :abc45  Enter the breadth :102.3 |
| 4.Getting the radius of the circle  Enter the radius :100  Getting the length and breadth of the rectangle  Enter the length :203  Enter the breadth: 300  Getting the height and radius of the cylinder  Enter the radius : 250  Enter the length :450  Enter the breadth: 110 |
| 5.Getting the radius of the circle  Enter the radius :100.256  Getting the length and breadth of the rectangle  Enter the length :203.235  Enter the breadth:12.365  Getting the height and radius of the cylinder  Enter the radius : 7.856  Enter the length :45.235  Enter the breadth :102.365 |

| 2. | C++ program for employee details using an array of objects . |
| --- | --- |
| Sample Input | \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*  Employee details  \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*  Enter the number of employees:2  Enter the employee name:joe  Enter the employee id:54  Enter the basic salary:7000  Enter the hra:200  Enter the da:400  Enter the employee name:kalis  Enter the employee id:55  Enter the basic salary:8000  Enter the hra:300  Enter the da:400 |
| Sample Output | EMPLOYEE NAME ID BASIC HRA DA GP NP  joe 54 7000 200 400 7600 7100 6400  kalis 55 8000 300 400 8700 8200 7700 |
| Test Case | 1.  \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*  Employee details  \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*  Enter the number of employees:3  Enter the employee name:john  Enter the employee id:541  Enter the basic salary:70000  Enter the hra:45  Enter the da:450  Enter the employee name:kamal  Enter the employee id:550  Enter the basic salary:85000  Enter the hra:75  Enter the da:560  Enter the employee name:selva  Enter the employee id:12345  Enter the basic salary:75800  Enter the hra:250  Enter the da:500 |
| 2.  \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*  Employee details  \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*  Enter the number of employees:2  Enter the employee name:1234ss  Enter the employee id:541  Enter the basic salary:70000.50  Enter the hra:200  Enter the da:400  Enter the employee name:kala  Enter the employee id:551  Enter the basic salary:80000  Enter the hra:150  Enter the da:400 |
| 3.  \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*  Employee details  \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*  Enter the number of employees:2  Enter the employee name:Babu  Enter the employee id:abc234  Enter the basic salary:70000  Enter the hra:tyu30  Enter the da:400  Enter the employee name:kumar  Enter the employee id:550  Enter the basic salary:hg300  Enter the hra:300  Enter the da:250 |
| 4.  \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*  Employee details  \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*  Enter the number of employees:2  Enter the employee name:Ramu  Enter the employee id:541  Enter the basic salary:70000  Enter the hra:150  Enter the da:200  Enter the employee name:Uma  Enter the employee id:524  Enter the basic salary:80000  Enter the hra:300  Enter the da:400 |
| 5.\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*  Employee details  \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*  Enter the number of employees:2  Enter the employee name:Velu  Enter the employee id:5456  Enter the basic salary:9000  Enter the hra:200  Enter the da:400  Enter the employee name:Siva  Enter the employee id:5555  Enter the basic salary:9000  Enter the hra:300  Enter the da:400 |

| 3. | Develop a C++ code to find to get square and cube of a number using Hierarchical inheritance |
| --- | --- |
| Sample Input /ouput | Enter an integer number: 10  Square of 10 is: 100  Enter an integer number: 20  Cube of 10 is: 8000 |
| Sample Output |  |
| Test Case | 1.  Enter an integer number: 10.25  Enter an integer number: 20.23 |
| 2.  Enter an integer number: 100  Enter an integer number: 200 |
| 3.  Enter an integer number: abc  Enter an integer number: 20 |
| 4.  Enter an integer number: 10ab  Enter an integer number: pqr |
| 5.  Enter an integer number: 10  Enter an integer number: 20 |

| 4. | Write a C++ Program to find the greatest of three numbers using pointers. |
| --- | --- |
| Sample Input | enter the three numbers :  35  45  21 |
| Sample Output | The greatest is P2: 45 |
| Test Case | 1.  enter the three numbers :  35.23  54.32  12.56 |
| 2.  enter the three numbers :  350  540  120 |
| enter the three numbers :  35  45  21 |
| 3.  enter the three numbers :  abc  54  21 |
| enter the three numbers :  56  78  trp12 |

| 5. | C++ Program to insert and display data entered by using pointer notation. |
| --- | --- |
| Sample Input | Enter the 4 numbers:  1  2.5  3.0  4 |
| Sample Output | Displaying the data:  1  2.5  3.0  4 |
| Test Case | Enter the 4 numbers:  1.25  2.56  3.75  4.89 |
| Enter the 4 numbers:  100.25  25  36  4 |
| Enter the 4 numbers:  12  abc  3.0  45 |
| Enter the 4 numbers:  156  2.5  wer23  4 |
| Enter the 4 numbers:  100  250  333  4op |