**Question 1**

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| **Source Code** |

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| *# Write a program to demonstrate the use of different operators in python.*  **def** **operators\_demo**(a, b):  print("Addition:", a + b)  print("Subtraction:", a - b)  print("Multiplication:", a \* b)  print("Division:", a / b **if** b != 0 **else** "Undefined")  print("Modulus:", a % b **if** b != 0 **else** "Undefined")  print("Floor Division:", a // b **if** b != 0 **else** "Undefined")  print("Exponentiation:", a \*\* b)  print("Equal:", a == b)  print("Not Equal:", a != b)  print("Greater:", a > b)  print("Smaller:", a < b)  print("Logical AND:", a > 0 and b > 0)  print("Logical OR:", a > 0 or b > 0)  print("Logical NOT:", not(a > 0))  a = int(input("Enter first number: ")) b = int(input("Enter second number: ")) operators\_demo(a, b) |

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| **Output** |

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| Enter first number: 10 Enter second number: 5 Addition: 15 Subtraction: 5 Multiplication: 50 Division: 2.0 Modulus: 0 Floor Division: 2 Exponentiation: 100000 Equal: False Not Equal: True Greater: True Smaller: False Logical AND: True Logical OR: True Logical NOT: False |

**Question 2**

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| **Source Code** |

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| *# Write a program to print Fibonacci Series 0 1 1 2 3 5 ………..N*  n = int(input("Enter the number of terms: ")) a, b = 0, 1 print("Fibonacci Series:") **for** \_ in range(n):  print(a)  a, b = b, a + b |

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| **Output** |

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| Enter the number of terms: 5 Fibonacci Series: 0 1 1 2 3 |

**Question 3**

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| **Source Code** |

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| *# Write a program to print the sum of first n prime numbers.*  **def** **is\_prime**(num):  **if** num < 2:  **return** **False**  **for** i in range(2, int(num \*\* 0.5) + 1):  **if** num % i == 0:  **return** **False**  **return** **True**  n = int(input("Enter Number of Prime Numbers to Sum: ")) count, num, total = 0, 2, 0 **while** count < n:  **if** is\_prime(num):  total += num  count += 1  num += 1 print("Sum of first", n, "prime numbers is:", total) |

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| **Output** |

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| Enter Number of Prime Numbers to Sum: 8 Sum of first 8 prime numbers is: 77 |