**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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| Error: Sorry for the inconvenience, there was an API error: Gemini API returned status 429 - {  "error": {  "code": 429,  "message": "You exceeded your current quota, please check your plan and billing details. For more information on this error, head to: https://ai.google.dev/gemini-api/docs/rate-limits.\n\* Quota exceeded for metric: generativelanguage.googleapis.com/generate\_content\_free\_tier\_requests, limit: 50\nPlease retry in 19.975359324s.",  "status": "RESOURCE\_EXHAUSTED",  "details": [  {  "@type": "type.googleapis.com/google.rpc.QuotaFailure",  "violations": [  {  "quotaMetric": "generativelanguage.googleapis.com/generate\_content\_free\_tier\_requests",  "quotaId": "GenerateRequestsPerDayPerProjectPerModel-FreeTier",  "quotaDimensions": {  "location": "global",  "model": "gemini-2.0-flash-exp"  },  "quotaValue": "50"  }  ]  },  {  "@type": "type.googleapis.com/google.rpc.Help",  "links": [  {  "description": "Learn more about Gemini API quotas",  "url": "https://ai.google.dev/gemini-api/docs/rate-limits"  }  ]  },  {  "@type": "type.googleapis.com/google.rpc.RetryInfo",  "retryDelay": "19s"  }  ]  } } |

**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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| Error: Sorry for the inconvenience, there was an API error: Gemini API returned status 429 - {  "error": {  "code": 429,  "message": "You exceeded your current quota, please check your plan and billing details. For more information on this error, head to: https://ai.google.dev/gemini-api/docs/rate-limits.\n\* Quota exceeded for metric: generativelanguage.googleapis.com/generate\_content\_free\_tier\_requests, limit: 50\nPlease retry in 17.680387483s.",  "status": "RESOURCE\_EXHAUSTED",  "details": [  {  "@type": "type.googleapis.com/google.rpc.QuotaFailure",  "violations": [  {  "quotaMetric": "generativelanguage.googleapis.com/generate\_content\_free\_tier\_requests",  "quotaId": "GenerateRequestsPerDayPerProjectPerModel-FreeTier",  "quotaDimensions": {  "location": "global",  "model": "gemini-2.0-flash-exp"  },  "quotaValue": "50"  }  ]  },  {  "@type": "type.googleapis.com/google.rpc.Help",  "links": [  {  "description": "Learn more about Gemini API quotas",  "url": "https://ai.google.dev/gemini-api/docs/rate-limits"  }  ]  },  {  "@type": "type.googleapis.com/google.rpc.RetryInfo",  "retryDelay": "17s"  }  ]  } } |