**Option 1**

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| **Sl. No.** | **Script** |
| 1. | first = ‘Sue’  last = ‘Wong’  name = first + ‘ ‘ + last  name |
| 2. | x = 3  y = 5  print(‘The sum of’, x, ‘plus’, y, ‘is’, x+y) |
| 3. | sillyTest = ‘‘‘Say,  "I’m in!"  This is line 3’’’  print(sillyTest)  sillyTest |
| 4. | applicant = input("Enter the applicant’s name: ") interviewer = input("Enter the interviewer’s name: ")  time = input("Enter the appointment time: ") print(interviewer, "will interview", applicant, "at", time) |
| 5. | x = input("Enter an integer: ")  y = input("Enter another integer: ")  print(‘The sum of ‘, x, ‘ and ‘, y, ‘ is ‘, x+y, ‘.’, sep=‘‘) |

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| 6. | xString = input("Enter an integer: ")  x = int(xString)  yString = input("Enter another integer: ")  y = int(yString)  print(‘The sum of ‘, x, ‘ and ‘, y, ‘ is ‘, x+y, ‘.’, sep=‘‘) |
| 7. | person = input(‘Enter your name: ‘)  greeting = ‘Hello {}!’.format(person)  print(greeting) |
| 8. | applicant = input("Enter the applicant’s name: ") interviewer = input("Enter the interviewer’s name: ")  time = input("Enter the appointment time: ") print(interviewer + ‘ will interview ‘ + applicant + ‘ at ‘ + time +’.’)  print(interviewer, ‘ will interview ‘, applicant, ‘ at ‘, time, ‘.’, sep=‘‘)  print(‘{} will interview {} at {}.’.format(interviewer, applicant, time))  print(‘\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*’)  print(‘{0} will interview {1} at {2}.’.format(interviewer, applicant, time)) |
| 9. | a = 5  b = 9  formatStr = ‘The set is {{{}, {}}}.’ setStr = formatStr.format(a, b)  print(setStr) |

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| 10. | def happyBirthday(person):  print("Happy Birthday to you!")  print("Happy Birthday to you!")  print("Happy Birthday, dear " + person + ".")  print("Happy Birthday to you!") happyBirthday(‘Emily’)  happyBirthday(‘Andre’) |
| 11. | def lastFirst(firstName, lastName):  separator = ‘, ‘  result = lastName + separator + firstName  return result  print(lastFirst(‘Benjamin’, ‘Franklin’)) print(lastFirst(‘Andrew’, ‘Harrington’)) |
| 12. | PI = 3.14159265358979  def circleArea(radius):  return PI\*radius\*radius  def circleCircumference(radius):  return 2\*PI\*radius  print(‘circle area with radius 5:’, circleArea(5))  print(‘circumference with radius 5:’, circleCircumference(5)) |

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| 13. | def createDictionary():  ‘‘‘Returns a tiny Spanish dictionary’’’  spanish = dict() # creates an empty dictionary  spanish[‘hello’] = ‘hola’  spanish[‘yes’] = ‘si’  spanish[‘one’] = ‘uno’  spanish[‘two’] = ‘dos’  spanish[‘three’] = ‘tres’  spanish[‘red’] = ‘rojo’  spanish[‘black’] = ‘negro’  return spanish  def main():  dictionary = createDictionary()  print(dictionary[‘two’])  print(dictionary[‘red’])  main() |
| 14. | numberFormat = "Count in Spanish: {one}, {two}, {three}" withSubstitutions = numberFormat.format(one=‘uno’, two=‘dos’, three=‘tres’)  print(withSubstitutions) |
| 15. | x = 20  y = 30  sum = x+y  prod = x\*y  formatStr = ‘{x} + {y} = {sum};  {x} \* {y} = {prod}.’  equations = formatStr.format(\*\*locals())  print(equations) |
| 16. | person = input(‘Enter your name: ‘)  greeting = ‘Hello {person}!’.format(\*\*locals())  print(greeting) |

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| 17. | for count in [1, 2, 3]:  print(count)  print(‘Yes’ \* count) |
| 18. | n = int(input(‘Enter the number of times to repeat: ‘))  for i in range(n):  print(‘This is repetitious!’) |
| 19. | items = [‘red’, ‘orange’, ‘yellow’, ‘green’]  number = 1  for item in items:  print(number, item)  number = number + 1 |
| 20. | def numberList(items):  ‘‘‘Print each item in a list items, numbered in order.’’’  number = 1  for item in items:  print(number, item)  number = number + 1  def main():  numberList([‘red’, ‘orange’, ‘yellow’, ‘green’])  print()  numberList([‘apples’, ‘pears’, ‘bananas’])  main() |

**Q1. Print out all the 8 bit binary numbers (do not use a decimal to binary conversion).**

# Print out all the 8 bit binary numbers

# Do not use a decimal to binary conversion

def add1(arr):

i=len(arr)-1

if(arr[i] == 0):

arr[i] = 1

return arr

else:

while(arr[i] == 1 and i>=0):

arr[i] = 0

i = i-1

arr[i] = 1

return arr

if \_\_name\_\_ == "\_\_main\_\_":

arr = [0,0,0,0,0,0,0,0]

print(arr)

for i in range(pow(2,len(arr))-1):

print(add1(arr))

print("Total numbers printed = " + str(i+1))

