

Q1-A:

```
list=['ali','ahmad', 'sali', 'samer','noor']
name = input('Enter student name: ')
if name in list:
    print('yes')
else:
    print('no')
```

```
Enter student name: ali
yes
>>>
```

```
Enter student name: samar
no
>>> |
```

Q1-B:

```
list = [x for x in range(0,1000) if x % 2 != 0]
print(list)
```

```
[1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21, 23, 25, 27, 29, 31, 33, 35, 37, 39, 41,
43, 45, 47, 49, 51, 53, 55, 57, 59, 61, 63, 65, 67, 69, 71, 73, 75, 77, 79, 81,
83, 85, 87, 89, 91, 93, 95, 97, 99, 101, 103, 105, 107, 109, 111, 113, 115, 117,
119, 121, 123, 125, 127, 129, 131, 133, 135, 137, 139, 141, 143, 145, 147, 149,
151, 153, 155, 157, 159, 161, 163, 165, 167, 169, 171, 173, 175, 177, 179, 181,
183, 185, 187, 189, 191, 193, 195, 197, 199, 201, 203, 205, 207, 209, 211, 213,
215, 217, 219, 221, 223, 225, 227, 229, 231, 233, 235, 237, 239, 241, 243, 245,
247, 249, 251, 253, 255, 257, 259, 261, 263, 265, 267, 269, 271, 273, 275, 277,
279, 281, 283, 285, 287, 289, 291, 293, 295, 297, 299, 301, 303, 305, 307, 309,
311, 313, 315, 317, 319, 321, 323, 325, 327, 329, 331, 333, 335, 337, 339, 341,
343, 345, 347, 349, 351, 353, 355, 357, 359, 361, 363, 365, 367, 369, 371, 373,
375, 377, 379, 381, 383, 385, 387, 389, 391, 393, 395, 397, 399, 401, 403, 405,
407, 409, 411, 413, 415, 417, 419, 421, 423, 425, 427, 429, 431, 433, 435, 437,
439, 441, 443, 445, 447, 449, 451, 453, 455, 457, 459, 461, 463, 465, 467, 469,
471, 473, 475, 477, 479, 481, 483, 485, 487, 489, 491, 493, 495, 497, 499, 501,
503, 505, 507, 509, 511, 513, 515, 517, 519, 521, 523, 525, 527, 529, 531, 533,
535, 537, 539, 541, 543, 545, 547, 549, 551, 553, 555, 557, 559, 561, 563, 565,
567, 569, 571, 573, 575, 577, 579, 581, 583, 585, 587, 589, 591, 593, 595, 597,
599, 601, 603, 605, 607, 609, 611, 613, 615, 617, 619, 621, 623, 625, 627, 629,
631, 633, 635, 637, 639, 641, 643, 645, 647, 649, 651, 653, 655, 657, 659, 661,
663, 665, 667, 669, 671, 673, 675, 677, 679, 681, 683, 685, 687, 689, 691, 693,
695, 697, 699, 701, 703, 705, 707, 709, 711, 713, 715, 717, 719, 721, 723, 725,
727, 729, 731, 733, 735, 737, 739, 741, 743, 745, 747, 749, 751, 753, 755, 757,
759, 761, 763, 765, 767, 769, 771, 773, 775, 777, 779, 781, 783, 785, 787, 789,
791, 793, 795, 797, 799, 801, 803, 805, 807, 809, 811, 813, 815, 817, 819, 821,
823, 825, 827, 829, 831, 833, 835, 837, 839, 841, 843, 845, 847, 849, 851, 853,
855, 857, 859, 861, 863, 865, 867, 869, 871, 873, 875, 877, 879, 881, 883, 885,
887, 889, 891, 893, 895, 897, 899, 901, 903, 905, 907, 909, 911, 913, 915, 917,
919, 921, 923, 925, 927, 929, 931, 933, 935, 937, 939, 941, 943, 945, 947, 949,
951, 953, 955, 957, 959, 961, 963, 965, 967, 969, 971, 973, 975, 977, 979, 981,
983, 985, 987, 989, 991, 993, 995, 997, 999]
>>> |
```

Q1-C:

```
L = ['Network' , 'Math' , 'Programming', 'Physics' , 'Music']
for object in L:
    if object[0] == 'P':
        print(object)
```

```
Programming
```

```
Physics
```

```
>>> |
```

Q1-D:

```
dict = {num: num*num for num in range(1, 11)}
print(dict)
```

```
{1: 1, 2: 4, 3: 9, 4: 16, 5: 25, 6: 36, 7: 49, 8: 64, 9: 81, 10: 100}
```

```
>>> |
```

Q2:

```
decimal = int(input('Enter decimal number: '))
binaryList = []
while decimal > 0:
    b = decimal % 2
    decimal = int(decimal / 2)
    binaryList.append(b)

binaryList.reverse()
result = ""
for bit in binaryList:
    result = result + str(bit)
print(result)
```

```
Enter decimal number: 32
100000
>>> |
```

Q3:

```
import json
result = 0
numberOfQuestion = 0
name = input("Enter your name: ")
with open('q.json') as json_file:
    data = json.load(json_file)
    for question in data:
        print(question+": ")
        answer = input()
        if answer == data[question]:
            result = result + 1
        numberOfQuestion = numberOfQuestion + 1

outputFile = open("result.txt", "w")
outputFile.write(name+": " + str(result) + "/" + str(numberOfQuestion))
outputFile.close()
```

```
{
  "5 + 5 = ": "10",
  "15 + 7 = ": "22",
  "3 + 17 = ": "20",
  "13 + 2 = ": "15",
  "4 + 8 = ": "12",
  "7 + 5 = ": "12",
  "0 + 1 = ": "1"
}
```

```
Enter your name: ali
5 + 5 = :
10
15 + 7 = :
22
3 + 17 = :
25
13 + 2 = :
15
4 + 8 = :
12
7 + 5 = :
10
0 + 1 = :
2
>>>
```

```
ali: 4/7|
```