

CS-119(h) Midterm Exam Practice: Example ICC-P Questions

Exam 2023: Question 1

Qu'est-ce que ce programme affiche ?

```
x = 2
y = -3

if y or x:
    y = y - 1
    x = x + 1

if y < 0 or x < 0:
    y = y + 2
    x = x + 2

z = x and y

if z:
    print(x * z)
else:
    print(-x * y)
```

Exam 2023: Question 2

Qu'est-ce que ce programme affiche ?

```
my_string = "Avatar-The-way-of-water"
s = list(my_string) # converts string to a list of characters
t = s[-12::-3] if len(s) % 2 else s[-12::3]
print(t)
```

Exam 2023: Question 3

Qu'est-ce que ce programme affiche ?

```
t = [0, False, True, "empty"]
x = True == '1'
y = t[1] or t[-1]
z = len(t[3]) > False < True
print(x or y or z)
```

Exam 2023: Question 4

Qu'est-ce que ce programme affiche ?

```
s1 = [x for x in range(1,10)]
s2 = [x for x in range(5,15)]
s3 = [s1.index(x) if x in s1 else 0 for x in s2]
print(s3[3])
```

Exam 2023: Question 5

Qu'est-ce que ce programme affiche ?

```
i = 37
while i > 1:
    if i % 2:
        i = i // 2
    else:
        print("*")
        i = i + 1
```

Exam 2023: Question 6

Qu'est-ce que ce programme affiche ?

```
s = list("ABcDefg HiJk") # converts string to a list of characters
t = s[-1::-1]
for c in t:
    if c == 'c':
        break
    elif c == c.lower():
        continue
    print(c, end = ',')

print()
```

Exam 2023: Question 7

Qu'est-ce que ce programme affiche ?

```
# Function max(my_list) returns the maximum element in a list my_list

t = []
for i in range(10, 20):
    for j in range(2, i):
        if i % j == 0:
            t.append(j)
            break
print(len(t), end = ",")
print(max(t))
```

Exam 2023: Question 8

Qu'est-ce que ce programme affiche ?

```
s = [2, -10, 6, 2, 9, 9, 5, 18, 10, -16]
b = 0
for v in s:
    if (v if v > 0 else -v) > (b if b > 0 else -b):
        b = v
print(b)
```

Exam 2023: Question 9

Qu'est-ce que ce programme affiche ?

```
s = [x for x in range(1,6)]
s = s[-3:] + s[:-3]
s.reverse()
print(s)
```

Exam 2022: Question 1

Qu'est-ce que ce programme affiche ?

```
s = 'La vie est belle'
t = s[::4] # slicing over strings is identical to slicing over lists
t = t + s[-4::] + s[1]
print(t[2::2])
```

Exam 2022: Question 2

Qu'est-ce que ce programme affiche ?

```
n = 2000
cnt = 0

while n > 1:
    if n % 25:
        n = n // 2 if n % 4 else n // 4
    else:
        n = n // 25
        continue
    cnt = cnt + 1

print(cnt)
```

Exam 2022: Question 3

Qu'est-ce que ce programme affiche ?

```
s = list('1011010101') # converts string to a list of characters
key = list('010') # converts string to a list of characters
v = []
for i in range(len(s)):
    if i > (len(s) - len(key)):
        break
    if s[i:i+len(key)] == key:
        v = s[i:]
        break
print(v)
```

Exam 2022: Question 4

Qu'est-ce que ce programme affiche ?

```
n = 10
a = []

for i in range(n):
    a.append([])

cnt = 0
for i in range(n-1, -1, -1):
    for j in range(n):
        a[i].append(i + j)
    if a[i][j] > cnt:
        cnt = a[i][j]
print(cnt)
```

Exam 2022: Question 5

Qu'est-ce que ce programme affiche ?

```
seq = [9, 38, 7, 50, 22, 2]
seq = [seq[(i + 3) % len(seq)] for i, x in enumerate(seq)]
print(seq)
```

Exam 2021: Question 1

Qu'est-ce que ce programme affiche ?

```
x = [True, False]

for i in range(1,5):
    if i % 2:
        x.append(True)
    else:
        x.append(False)
print(x[3])
print(x[1] or x[4])
print(x[0] and not x[5])
```

Exam 2021: Question 2

Qu'est-ce que ce programme affiche ?

```
s = list('Abracadabra') # converts string to a list of characters
if (s[0] == s[3]):
    print(s[0:3])
elif (s[1]==s[-2]):
    print(s[:])
elif (s[-1] == s[-6]):
    print(s[-1::-4])
else:
    print(s[::-1])
```

Exam 2021: Question 3

Qu'est-ce que ce programme affiche ?

```
x = 2
y = 5
z = x - y//x
w = y + x/y
r = z or w
print(r)
```

Exam 2021: Question 4

Qu'est-ce que ce programme affiche ?

```
x = 8
y = 2**2

z = math.log2(x)**math.log2(y)
z = -z
z = z % y
print(z)
```

Exam 2021: Question 5

Qu'est-ce que ce programme affiche ?

```
N = 15
cnt = 0
for i in range (1, int(N/3) + 1, 2):
    for j in range (int(N/3), int(2*N/3) + 1, 2):
        for k in range(int(2*N/3), N + 1, 2):
            cnt = cnt + 1
print(cnt)
```

Exam 2021: Question 6

Qu'est-ce que ce programme affiche ?

```
s = list('1001') # converts string to a list of characters
l = len(s)
r = sum([int(s[l - i - 1]) * 2**i for i in range(l)])
print(r)
```

Exam 2021: Question 7

Qu'est-ce que ce programme affiche ?

```
s = list('0001011110') # converts string to a list of characters
n = len(s)
i = -1
while n:
    i = i + 1
    if s[i] == '1':
        n = n - 1
        continue
    elif s[i] == s[i+1]:
        n = n - 2
    else:
        n = n - 1
    print(s[i], end = ':')
print()
```

Exam 2021: Question 8

Qu'est-ce que ce programme affiche ?

```
'''
La methode index() renvoie l'index d'un element dans une liste.
La methode count() renvoie le nombre d'occurrences d'un element dans une liste.
'''

l = [[3], 3, [3, 3, 3]]
print(l.index(3))
print(l.count(3))
```

Exam 2021: Question 9

Qu'est-ce que ce programme affiche ?

```
a = -2000
b = 4001
c = 6002

c, b, a = c // a, b or a, c % a

print(a, b, c)
```