Question Number : 165 Question Id : 640653667988 Question Type : SA Calculator : None

Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 3

Question Label : Short Answer Question

Find $P\left(|X| < \frac{\alpha}{2}\right)$. Enter the answer correct to two decimal places.

Response Type : Numeric

Evaluation Required For SA : Yes

Show Word Count : Yes

Answers Type : Range

Text Areas : PlainText

Possible Answers :

0.39 to 0.45

Sem2 Intro to Python

Section Id :	64065344878
Section Number :	8
Section type :	Online
Mandatory or Optional :	Mandatory
Number of Questions :	15
Number of Questions to be attempted :	15
Section Marks :	50
Display Number Panel :	Yes
Section Negative Marks :	0
Group All Questions :	No
Enable Mark as Answered Mark for Review and Clear Response :	Yes

Maximum Instruction Time :	0
Sub-Section Number :	1
Sub-Section Id :	64065395013
Question Shuffling Allowed :	No
Is Section Default? :	null

Question Number : 166 Question Id : 640653667989 Question Type : MCQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 0

Question Label : Multiple Choice Question

THIS IS QUESTION PAPER FOR THE SUBJECT "FOUNDATION LEVEL : SEMESTER II: INTRODUCTION TO PYTHON (COMPUTER BASED EXAM)"

ARE YOU SURE YOU HAVE TO WRITE EXAM FOR THIS SUBJECT?
CROSS CHECK YOUR HALL TICKET TO CONFIRM THE SUBJECTS TO BE WRITTEN.

(IF IT IS NOT THE CORRECT SUBJECT, PLS CHECK THE SECTION AT THE TOP FOR THE SUBJECTS REGISTERED BY YOU)

Options :

6406532238320. ✔ YES

6406532238321. ✖ NO

Question Number : 167 Question Id : 640653667990 Question Type : MCQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 0

Question Label : Multiple Choice Question

Useful Data

Presentation

There are two types of blocks that you would see in all the questions:

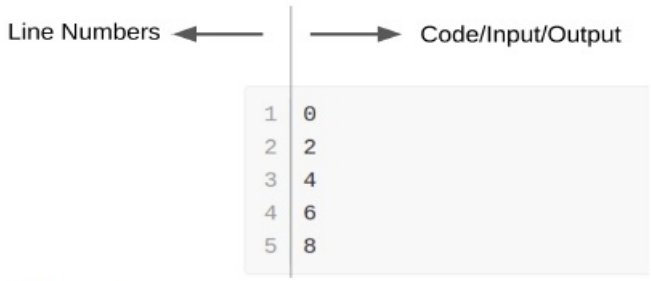
Code

```
1 for i in range(10):
2     if i % 2 == 0:
3         print(i)
```

Input or Output

```
1 0
2 2
3 4
4 6
5 8
```

In both the blocks, please note that the region to the left of the thin vertical line — `|` — corresponds to line-numbers. Do not confuse the line numbers with the content of the code or the input-output. Just to be clear:



Useful information

`range`

Sample behaviour of the `range` function:

- `range(5)` corresponds to the sequence `0, 1, 2, 3, 4`
- `range(1, 5)` corresponds to the sequence `1, 2, 3, 4`
- `range(1, 1)` is the empty sequence

`//` operator

`//` is the floor division operator. `5 // 2` is 2 and *not* 2.5

NAT $\rightarrow$ integer

For all NAT questions in this exam, the answer will always be an integer and not a float value. If the answer to a question is 18, then just enter that value. Do *not* enter 18.0

Options :

6406532238322. ✔ Useful Data has been mentioned above.

6406532238323. ✖ This data attachment is just for a reference & not for an evaluation.

Sub-Section Number :	2
Sub-Section Id :	64065395014
Question Shuffling Allowed :	Yes

Is Section Default? : null

Question Number : 168 Question Id : 640653667991 Question Type : MCQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4

Question Label : Multiple Choice Question

What is the output of the following snippet of code?

```
L = ['four', 'one', 'ninety', 'three']
out = [ ]
while L != [ ]:
    mini = len(L[0])
    word = L[0]
    for number in L:
        if len(number) < mini:
            mini = len(number)
            word = number
    out.append(word)
    # L.remove(word) removes word from the list L
    L.remove(word)
print(out)
```

Options :

6406532238324. ✔ `['one', 'four', 'three', 'ninety']`

6406532238325. ✖ `['ninety', 'three', 'four', 'one']`

6406532238326. ✖ `['four', 'ninety', 'one', 'three']`

6406532238327. ✖ `['one', 'three', 'four', 'ninety']`

Question Number : 169 Question Id : 640653667994 Question Type : MCQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction

Time : 0

Correct Marks : 4

Question Label : Multiple Choice Question

`l1` is a non-empty list of integers. What is the output of the following snippet of code?

```
# Hint: str(3) is '3'
l2 = [ ]
for i in range(len(l1)):
    condition_1 = not (i % 2 == 0)
    condition_2 = not (len(str(l1[i])) != 3)
    if condition_1 and condition_2:
        l2.append(l1[i])
print(len(l2))
```

Note: The index starts from 0 in lists.

Options :

6406532238336. ✖ The number of 3-digit numbers that are found at even indices of `l1`.

6406532238337. ✖ The number of non-3-digit numbers that are found at even indices of `l1`.

6406532238338. ✔ The number of 3-digit numbers that are found at odd indices of `l1`.

6406532238339. ✖ The number of non-3-digit numbers that are found at odd indices of `l1`.

Question Number : 170 Question Id : 640653667995 Question Type : MCQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4

Question Label : Multiple Choice Question

Three of the following codes print the same output, while one prints a different output. Which of the following code prints a different output from the other three?

Hint: `str(x)` converts `x` into a string. `'3' * 2` evaluates to `'33'`.

Options :

6406532238340. ✖

```
1 print(3211 % 32)
```

6406532238341. ✖

```
1 print("1324"[0] + "2310"[-2])
```

6406532238342. ✖

```
1 print(str(31 % 10) + str(9 - 8))
```

6406532238343. ✔

```
1 print(int((str(3 * 7) * 2)[2] * 2))
```

Question Number : 171 Question Id : 640653667996 Question Type : MCQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4

Question Label : Multiple Choice Question

What is the output of the following snippet of code?

```
P = [[1, 2], [4, 3]]
Q = [[4, 1], [9, 3]]
R = [ ]

for i in range(2):
    row = [ ]
    for j in range(2):
        if P[i][j] - Q[i][j] > 0:
            row.append(1)
        elif P[i][j] == Q[i][j]:
            row.append(0)
        else:
            row.append(-1)
    R.append(row)

print(R)
```

Options :

6406532238344. ✔

```
[[-1, 1], [-1, 0]]
```

6406532238345. ✖

```
[[1, -1], [1, 0]]
```

6406532238346. ✖

```
[[1, 1], [0, 1]]
```

6406532238347. ✖

```
[[1, 1], [0, 0]]
```

Sub-Section Number :	3
Sub-Section Id :	64065395015
Question Shuffling Allowed :	Yes
Is Section Default? :	null

Question Number : 172 Question Id : 640653667992 Question Type : MCQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 3

Question Label : Multiple Choice Question

`string` is a non-empty string. What does the following code print?

```
# Hint: char.isalpha() returns True if char is an alphabet
#       it returns False otherwise
count = 0
for char in string:
    if char in "aeiou":
        count += 1
    elif char.isalpha():
        count -= -1
print(count)
```

Options :

6406532238328. ✖ The number of vowels in `string`

6406532238329. ✔ The number of alphabets in `string`

6406532238330. ✖ The difference between number of vowels and consonants in `string`

6406532238331. ✖ The number of characters in `string`

Question Number : 173 Question Id : 640653667993 Question Type : MCQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 3

Question Label : Multiple Choice Question

What is the output of the following snippet of code?

```
1 x = '1' + '2' + '3'
2 print(x)
```

Options :

6406532238332. ✔ 123

6406532238333. ✖ 6

6406532238334. ✖ 321

6406532238335. ✖ 1, 2, 3

Sub-Section Number :	4
Sub-Section Id :	64065395016
Question Shuffling Allowed :	Yes
Is Section Default? :	null

Question Number : 174 Question Id : 640653667997 Question Type : MSQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 3 Max. Selectable Options : 0

Question Label : Multiple Select Question

Consider the following snippet:

```
num = float(input())
if num >= 1 and num < 2:
    print('floor is one')
if num >= 2 and num < 3:
    print('floor is two')
if num >= 3 and num < 4:
    print('floor is three')
else:
    print('floor is four')
```

Select all inputs for which the output is exactly the following line:

```
floor is four
```

Options :

6406532238348. ✖ 1

6406532238349. ✔ 0.5

6406532238350. ✔ 4.4

6406532238351. ✖ 1.8

6406532238352. ✖ 2.4

6406532238353. ✖ 3.6

Sub-Section Number :	5
Sub-Section Id :	64065395017
Question Shuffling Allowed :	Yes
Is Section Default? :	null

Question Number : 175 Question Id : 640653667998 Question Type : SA Calculator : None

Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4

Question Label : Short Answer Question

What is the output of the following snippet of code?

```
word = 'claustrophobic'
size = len(word)
count = 0
for x in range(size):
    if word[x] in 'aeiou':
        if x % 2 == 0:
            count = count + 1
print(count)
```

Response Type : Numeric

Evaluation Required For SA : Yes

Show Word Count : Yes

Answers Type : Equal

Text Areas : PlainText

Possible Answers :

3

Question Number : 176 Question Id : 640653667999 Question Type : SA Calculator : None

Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4

Question Label : Short Answer Question

What is the output of the following snippet of code?

```
p = 1
M = [[1, 3, 4], [2, -1, 3], [-2, 1, 2]]
m = len(M)
n = len(M[0])
for i in range(m):
    for j in range(n):
        p = p * M[i][j]
print(p)
```

Response Type : Numeric

Evaluation Required For SA : Yes

Show Word Count : Yes

Answers Type : Equal

Text Areas : PlainText

Possible Answers :

288

Question Number : 177 Question Id : 640653668001 Question Type : SA Calculator : None

Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4

Question Label : Short Answer Question

What is the output of the following snippet of code?

```
# Hint: negative indexing in lists works
# in the same way as negative indexing in strings
# so L[-1] is 5 and L[-2] is 4 and so on
L = [1, 2, 3, 4, 5]
stop = -len(L) - 1
x = 0
i = -1
while i > stop:
    x = x * 10 + L[i]
    i = i - 1
print(x)
```

Response Type : Numeric

Evaluation Required For SA : Yes

Show Word Count : Yes

Answers Type : Equal

Text Areas : PlainText

Possible Answers :

54321

Question Number : 178 Question Id : 640653668002 Question Type : SA Calculator : None

Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4

Question Label : Short Answer Question

Given integers x, y, we call (x, y) a "point". Order matters. That is, $(2, 3)$ is a different point from $(3, 2)$.

```
x = int(input())
y = int(input())
label = 'negative'
if x >= 0 and x <= 5:
    if y >= 0 and y <= 5:
        label = 'positive'
print(label)
```

Find the total number of points for which this code will output the value `positive`.

Response Type : Numeric

Evaluation Required For SA : Yes

Show Word Count : Yes

Answers Type : Equal

Text Areas : PlainText

Possible Answers :

36

Sub-Section Number :	6
Sub-Section Id :	64065395018
Question Shuffling Allowed :	Yes
Is Section Default? :	null

Question Number : 179 Question Id : 640653668000 Question Type : SA Calculator : None

Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 3

Question Label : Short Answer Question

What is the output of the following snippet of code?

```
c1 = 0
c2 = 0
for x in range(1, 101):
    for y in range(1, 101):
        if x + y == 199:
            c1 = c1 + 1
        c2 = c2 + 1
print(c2 // c1)
```

Response Type : Numeric

Evaluation Required For SA : Yes

Show Word Count : Yes

Answers Type : Equal

Text Areas : PlainText

Possible Answers :

5000

Sub-Section Number :	7
Sub-Section Id :	64065395019
Question Shuffling Allowed :	No
Is Section Default? :	null

Question Id : 640653668003 Question Type : COMPREHENSION Sub Question Shuffling Allowed : No Group Comprehension Questions : No Question Pattern Type : NonMatrix Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Question Numbers : (180 to 181)

Question Label : Comprehension

Write a while loop to print the first 100 powers of 2, one on each line. The i^{th} line should have the value of 2^i. The output has 100 lines in total. The first five lines look like this:

```
2
4
8
16
32
```

Based on the above data, answer the given subquestions.

Sub questions

Question Number : 180 Question Id : 640653668004 Question Type : MCQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4

Question Label : Multiple Choice Question

Select the correct code block.

Options :

6406532238359. ✖

```
n = 1
while n < 100:
    print(2 ** n)
```

6406532238360. ✖

```
n = 1
while n < 100:
    print(2 ** n)
    n = n + 1
```

6406532238361. ✔

```
n = 1
while n <= 100:
    print(2 ** n)
    n = n + 1
```

```
n = 1
while n < 100:
    n = n + 1
    print(2 ** n)
```

6406532238362.

Question Number : 181 Question Id : 640653668005 Question Type : SA Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2

Question Label : Short Answer Question

What is the value of `n` after executing the previous code? That is, once we get out of the while loop, what is the value of `n`?

Response Type : Numeric

Evaluation Required For SA : Yes

Show Word Count : Yes

Answers Type : Equal

Text Areas : PlainText

Possible Answers :

101