Test B - UAI 735I

## Exam – written part – winter 2017/18

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| --- | --- |
| Name of student |  |
| Date |  |

# 1 What is right

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| --- |
| >>> a='Tyrion Lanister' |
| >>> print( [i for i in a if not i.isspace()]) # what is output ? |
| >>> print( [i for i in a if i.isdigit() or i.isspace()]) # what is output ? |
| >>> |
| How to extract from “a” only small letters? |

# 2 What is output? Suggest better solution.

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| --- |
| >>> x=[10,20,30,40] |
| >>> print(x[20]) |
| # suggest better solution |

# 3 What are results

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| --- |
| >>> a="Tyrion ; Lanister" |
| >>> "".join(sorted(a.upper()))  >>> "".join(sorted(a,reverse=True)) |

# 4 Describe shortly the function of the unknown program

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| --- |
| import string  from random import \*  characters = string.ascii\_letters + string.punctuation + string.digits  the\_word = "".join(choice(characters) for x in range(0,(randint(5,10))))  print (the\_word)  the\_word2 = "".join(choice(characters) for x in range(0, 10))  print (the\_word2) |
| # Describe shortly the function of the unknown program, describe the difference between  # the\_word and the\_word2 |

# 5 What is output

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| --- |
| >>> names\_surnames={"name":"Tyrion","surname":"Lanister"}  >>> a=dict(map(reversed, names\_surnames.items())) |
| >>> print(a) # what is output?  >>> "name" in a.keys() # what is output? |
| >>> m = [{1:{1:(1,2,3)},2:(9,8,0)}] |
| >>> type(m) |
| >>> type(m[0]) |
| >>> type(m[0][1]) |
| >>> type(m[0][1][1]) |
| >>> type(m[0][1][1][1]) |

# 6 What is result

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| --- |
| >>> m = [{"16":("16examples",["AAA","FFF","ABC"],"8","888","555","444")}] |
| >>> print(m[0].keys()) |
| >>> print(m[0].values()) |

# 7 What is wrong

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| --- |
| s = "0123456789" \  "ABCDEFGHIJKLMNOPQRSTUVWXYZ" \  "abcdefghijklmnopqrstuvwxyz" \  "!\"#$%&'()\*+,-./:;<=>?@[\\]^\_`{|}~" |
| # What is wrong with this program … mean REALLY wrong … it will be error in run |

# 8 What is output

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| --- |
| >>> x = ["Yesterday","Today","Tomorrow","Day after tomorrow"]  >>> b = [(i,j) for i, j in enumerate(x,start=5)] |
| >>> print(b)  >>> type(b[1]) |

# 9 What is result

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| --- |
| >>> y=lambda x: x\*4  >>> import math |
| >>> print(int(y(pi))) |

# 10 Substrings

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| --- |
| >>> m = "I have a cat" |
| >>> m[::-2] |
| >>> m[1:] |

# 11 What is result

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| --- |
| while True:  x=input("Enter letter, q for quit: ")  if x.upper() == "Q":  break  else:  print(x) |
|  |

# 12 What is output

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| --- |
| def call(v1=20,v2=5,v3=2):  if v3 > 2:  print(v1\*v2-v3)  else:  print(v3)  call(7,1,4) |
| # what is output |

# 13 What is the difference

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| --- |
| 1>>> import math as m  2>>> from math import pi |
| # write d = 2 \* pi \* 5 in both cases  1>>>  2>>> |

# 14 What is output

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| --- |
| >>> x="Java Python, Ruby" |
| # what is the output  >>> x[:11].endswith("n")  >>> x.index("y")  >>> x[::-1].index("y") |

# 15 What is output

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| --- |
| >>> \*a, b, c = "I have a cat".split(" ") |
| # what is the output  >>> print(a)  >>> print(b)  >>> print(c) |