Test B - UAI 655

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

# 1 Output is

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| >>> m = ["cat","trout","owl"]  >>> list(enumerate(m,start=22)) |
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# 2 Print in hexadecimal, octal and binary (do not count it only ask Python)

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| >>> m = 56 |
| Hexadecimal  >>>  Octal  >>>  Binary  >>> |

# 3 Print in decimal number

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| >>> m = "cangaroo" # m is a number in 36 number set convert to decimal integer |
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# 4 What is the content of x

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| >>> x = [[] for i in range(4)]  >>> x[1].append(5)  >>> x.append(5)  >>> x.insert(0,5) |
| >>> x # what is the content of x |

# 5 What happens

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| >>> x={1,2,3}  >>> y=[1,2,3]  >>> z=frozenset([1,2,3])  >>> x.add(3)  >>> y.append(3)  >>> z.add(3) |
| >>> x # what is a content  >>> y # what is a content  >>> z # what is a content |

# 6 What is output

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| >>> x = list(range(10,30,3)) |
| >>> 24 in x # what is output |

# 7 index and find

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| >>> m = "I have a cat" |
| >>> m.index("c") # what is output  >>> m[4:].index("c") # what is output  >>> m.index("q") # what is output  >>> m.find("q") # what is output |

# 8 A small program

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| >>> a= "I want you to know \  one thing \  You know how this is \  if I look \  at the crystal moon \  at the red branch \  of the slow autumn at my window \  if I touch \  near the fire \  the impalpable ash" |
| Write a small program which  - create a list with words (delimiter is “ “)  - sort all words by the last letter of the words  (the content (a) is here only for idea, do not write exact output – only a program)  ………………………………. |

# 9 What is the output

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| >>> a = "I have a cat"  >>> a.split(" ",maxsplit=2) |
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# 10 What are outputs

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| >>> a = "I have a cat"  >>> for i in a: print(i,end="") |
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| >>> for i in range(len(a)): print(i,end="") |
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# 11 What are outputs

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| --- |
| >>> a  {'I', 'have', 'a', 'cat', 'her', 'name', 'is', 'Kit'}  >>> b  {'I', 'have', 'a', 'dog', 'her', 'name', 'is', 'Rex'} |
| >>> a-b |
| >>> b-a |

# 12 Dictionary

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| >>> a = ['town', 'name', 'surname', 'address', 'gender']  >>> b = ["Pilsen", "Marta","Vohnoutova","Bukovec 184 Pilsen","female"]  >>> x=dict(zip(a,b)) # what is x content |
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# 13 Draw simple activity (development) diagram

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| * Separate individual words from text and get rid of all non-alphabetical characters * Count occurrence of all words * Print all words without duplicities with number of occurrences, sorted by occurrence number from higher to smaller |
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# 14 Is it right or not, if not what is wrong

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| --- |
| >>> [bin(i) for i in string.digits] |
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# 15 Exception handling – what is wrong and what is right

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| --- |
| def check\_number(x,number\_set):  try:  y = int(x,number\_set)  print(x," is valid digit in ",number\_set,"number set and decimally it is ",y)  except ValueError:  print(x," is invalid digit in ",number\_set,"number set, try it again")    def main():      while True:  x = input("Enter a hexadigit or Q for quit: ")  if x.upper() == "Q": break  number\_set = int(input("Enter a number\_set: "))    check\_number(x,number\_set)  main() |
| Wrong or right ? |
| def check\_number(x,number\_set):  try:  y = int(x,number\_set)  print(x," is valid digit in ",number\_set,"number set and decimally it is ",y)  except IndexError:  print(x," is invalid digit in ",number\_set,"number set, try it again")    def main():      while True:  x = input("Enter a hexadigit or Q for quit: ")  if x.upper() == "Q": break  number\_set = int(input("Enter a number\_set: "))    check\_number(x,number\_set)  main() |
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| def check\_number(x,number\_set):  try:  y = int(x,number\_set)  print(x," is valid digit in ",number\_set,"number set and decimally it is ",y)  except Exception:  print(x," is invalid digit in ",number\_set,"number set, try it again")    def main():      while True:  x = input("Enter a hexadigit or Q for quit: ")  if x.upper() == "Q": break  number\_set = int(input("Enter a number\_set: "))    check\_number(x,number\_set)  main() |
| Wrong or right ? |