Facit och kommentarer till tenta 2023-01-12 i DA2004

Del A: flervalsfrågor

1. *C*
2. *A*
3. *A, C*
4. *B*
5. *D*
6. *A, D, E*
7. *D*
8. *A, B, D*
9. *A, D, E*
10. *D, E*

Del B: kodfrågor

11.

A. Exempellösning:

```
def float_to_percent(x):
    return (str(int(x*100)) + "%")
```

B. Exempellösning:

```
def dict_to_averages(d):
    total_sum = sum(d.values())
    out = {}
    for k , v in d.items():
        out[k] = v / total_sum
    return out
```

C. Exempellösning:

```
def dict_to_table(d):
    new_d = dict_to_averages(d)
    for k , v in new_d.items():
        print(k + ":",float_to_percent(v))
```

12. Exempellösning:

```
def zip_with(f,list1,list2):
    assert len(list1) == len(list2), "Input lists must have same length"

    out = []

    for i in range(len(list1)):
        out.append(f(list1[i],list2[i]))

    return out
```

13. Exempellösning

```
from math import prod

def read_numbers():
    numbers = []
    while True:
        x = input("Skriv ett tal, + eller *: ")
        if x == "+":
            print("Summan är",sum(numbers))
            break
        elif x == "*":
            print("Produkten är",prod(numbers))
            break
        else:
            try:
                numbers.append(int(x))
            except:
                print("Felaktig indata, försök igen!")
```

14.

A. Exempellösning:

```
class Item:
    def __init__(self,lvl):
        self.required_level = lvl
```

B. Exempellösning:

```
class Sword(Item):

    def __init__(self,lvl,n,d):
        super().__init__(lvl)
        self.name = n
        self.damage = d
```

C. Exempellösning:

```
    def __str__(self):
        reqlvl = str(self.required_level)
        d = str(self.damage)
        return ("A" + self.name + " is a sword which requires level " +
                reqlvl + " and causes damage " + d)
```