Solutions and commentary for exam 2024-10-03 in DA2004/5

Del A: flervalsfrågor

1. C

2. D

3. C

4. A

5. E

6. C

7. C

8. E

Del B: kodfrågor

9. Exempellösning:

```python
def multiplikationstabell(n):
    for i in range(1, n+1):
        for j in range(1, n+1):
            print(i*j, end='   ')
        print()
```

10. Exempellösningar.

A.
```python
def standardise_word(word):
    standardised = ''
    for c in word.lower():
        if c.isalpha():
            standardised += c
    return standardised
```

B.
```python
def standardise_word(word):
    standardised = ''
    for c in word.lower():
        if c.isalpha():
            standardised += c
    if standardised == '':      # Ny rad: detektera problemet!
        raise ValueError('No word in input string') # Ny rad: visa att något är knas
    return standardised
```

11. Exempellösning:

```python
def read_text(filename):
    word_list = list()
    with open(filename) as h:
        for line_number, line in enumerate(h):
            for word in line.split():
                word_object = Word(word, line_number)
                word_list.append(word_object)
    return word_list
```

12. Exempellösning.

```python
def most_common_words(word_list):
    table = dict()
    for w in word_list:
        if w.word not in table:
            table[w.word] = 1
        else:
```

```
                table[w.word] += 1

        max_freq = max(table.values())
        max_list = list()

        for key, val in table.items():
            if val == max_freq:
                max_list.append(key)
        return max_list
```

13. Exempellösning.

```
class Word:
    def __init__(self, word, line_number):
        self.word = standardise_word(word) # Missing function!
        self.line = line_number

    def __repr__(self):
        return f'Word({self.word}, {self.line})'

    def letters(self):
        letters = dict()
        for c in self.word:
            letters[c] = True
        return list(letters.keys())
```

14.

A. Här läggs resultatet i en variabel, för användning i 14B, men det krävs inte för poäng:

```
taytay = list(map(ord, 'Lavender Haze'))
```

B. ```list(filter(lambda x: x < ord('Z')and x >= ord('A'), taytay))```