Question a

```
# What we should do for having a dictionary that has order (dictionaries do not have order)
# Answer: Use OrderedDict function from collections module

from collections import OrderedDict

definition = {'one':1, 'two':2, 'three':3, 'four':4, 'five':5}
definition['six'] = 6
OrderedDict((word, True) for word in definition)
print(definition)
```

Question b

```
def main():
    # input given in instructions (list of dictionaries)
    input_val = [{'course': 'python', 'LastGPA' : 90, 'CurrentGPA' : 80},
            {'course': 'python', 'LastGPA' : 95, 'CurrentGPA': 85},
            {'course': 'python', 'LastGPA' : 100, 'CurrentGPA': 100}]

    # Final output list of dictionaries
    final_val = list()

    # looping through each dictionary in the list
    for d in input_val:
        output_val = dict()
        k_v = ''
        v_v = 0
        count = 0
        # looping through each key of the dictionary
        for i in d.keys():
            v = d[i]
            # if value of the key is a digit then add the value else just store
            if str(v).isdigit():
                v_v += v
                if k_v != '':
                    k_v += '+' + i
                else:
                    k_v += i
                count += 1
            else:
                output_val[i] = v
        # Finally storing average
        output_val[k_v] = v_v / count
        # Pushing the dictionary to the end of the list
        final_val.append(output_val)
    print(final_val)

if __name__ == '__main__':
    main()
```

Question c

```
def main():
    input_list = input('Input:')
    # Splitting input by comma
    input_list = input_list.split(',')
```

```
    # Sorting the list
    input_list.sort()
    output_list = input_list
    print(output_list)

if __name__ == '__main__':
    main()
```

Question d

```
def main():
    # Inputting Set 1 values
    i_p_1 = input('Set 1 elements separated by comma:')
    i_p_1 = i_p_1.split(',')

    # Inputting Set 2 values
    i_p_2 = input('Set 2 elements separated by comma:')
    i_p_2 = i_p_2.split(',')

    set1 = set()
    set2 = set()

    # Creating set 1
    for i in i_p_1:
        if i.isdigit():
            i = int(i)
        set1.add(i)

    # Creating set 2
    for i in i_p_2:
        if i.isdigit():
            i = int(i)
        set2.add(i)

    # Displaying symmetric difference
    print(set1 ^ set2)

if __name__ == '__main__':
    main()
```