1. Compare and contrast the float and Decimal classes' benefits and drawbacks.

Decimal point is a class in which there is 128 bits of space to store a number while in case of float it is 32 bits.

2. Decimal('1.200') and Decimal('1.2') are two objects to consider. In what sense are these the same object? Are these just two ways of representing the exact same value, or do they correspond to different internal states?

Decimal point 1.200 and 1.2 correspond to the same internal value as the value of zero after a decimal point is none. Therefore, both correspond to the same value.

3. What happens if the equality of Decimal('1.200') and Decimal('1.2') is checked?

The answer will be True which means that they both are equal

4. Why is it preferable to start a Decimal object with a string rather than a floating-point value?

The decimal point object gives many advantages over the floating point value. The most major of this value is that decimal point supports faster calculations.

5. In an arithmetic phrase, how simple is it to combine Decimal objects with integers?

We can make any integer value to decimal point value with just 1 line of code in python

6. Can Decimal objects and floating-point values be combined easily?

Yes we can easily do that in python with just 1 line of code:

Decimal.from\_float(<value>)

7. Using the Fraction class but not the Decimal class, give an example of a quantity that can be expressed with absolute precision.

x = 13.94999999999999

float("{:.2f}".format(x))

8. Describe a quantity that can be accurately expressed by the Decimal or Fraction classes but not by a floating-point value.

x = 13.9499999999999999

Q9. Consider the following two fraction objects: Fraction(1, 2) and Fraction(1, 2). (5, 10). Is the internal state of these two objects the same? Why do you think that is?

Yes the internal state of both the objects is same as fraction when divided by (1,2) gives the same result as fraction 1

Q10. How do the Fraction class and the integer type (int) relate to each other? Containment or inheritance?

Integers includes both positive and negative numbers while fraction includes one integer divided by other integer value.

As the fraction class is directly related to the integer class there it is following **inheritance.**