COMPUTER PROGRAMMING

Q1. Here is an infix notation: ((A+B)*C-(D-E)) ^ (F+G) Choose the correct postfix notation of the above from the given options.

- ○ AB+CD*E--FG+^
- ○ AB+C*DE--FG+^
- ○ AB+C*DE-FG-+^
- ○ A+BC*DE-FG-+^

Q2. An 8-bit signed integer has the following range:

- ○ 0 to 255
- ○ -128 to 127
- ○ -255 to 254
- ○ 0 to 509

Q3. Pankaj makes a program to print the product of cubes of the first 10 whole numbers. She writes the following program:

```
integer x = 0        // statement 1
integer sum = 0    // statement 2
while ( x < 10 )    // statement 3
{
  sum = x*x*x      // statement 4
  x = x + 1          // statement 5
}
print sum          // statement 6
```

Is her program correct? If not, which statement will you modify to correct it?

- ○ No error, the program is correct
- ○ Statement 1
- ○ Statement 4
- ○ statement 6
- ○ statement 2

Q4. I have a problem to solve which takes as input a number n. The problem has a property that given the solution for (n-1), I can easily solve the problem for n. Which programming technique will I use to solve such a problem?

- ○ Iteration
- ○ Decision-making

- o   Object Oriented Programming
- o   Recursion

Q5. Given:

Integer x = 40, y = 35, z = 20, w = 10

Comment about the output of the following two statements:

print x * y / z - w
print x * y / (z - w)

- o   Differ by 80
- o   Same
- o   Differ by 50
- o   Differ by 160