Beni-Suef University **Faculty of Computers and Information**
Academic year (2018-219)

Sheet 5: Problem Solving Concepts

- **The submitted solutions should be handwritten and NOT typed/printed.**
- **The students will lose 3 marks if this homework not delivered on time**

1. Divide two numbers given by user & if the second number is 0 print the result is unknown (lab)
2. Convert temperature from Fahrenheit Celsius,
3. Read two positive integers, determine which has greater value, and then print this value if it is even. (Practice Lab)
4. Find the greatest number within given 3 numbers by the user.
5. Identify if the water is in ice form, in liquid form, or gaseous form, based on a given temperature from the user.
6. Read a positive integer N and determine whether N is even or odd (lab)
7. Read a positive integer N and determine whether N is a perfect square.
8. Read a positive integer N and determine whether N is a prime.
9. Print numbers divisible by 5, for the integers from 1 to 99. (Practice Lab)
10. Read a positive integer N, then calculate and print (N!).
11. Print the following serial: {1, 3, 5, 7, 9,11, … 99}. (lab)
12. Print the following serial: {1, 4, 9, 16, 25,36, … 121}.
13. A simple payroll program, must read the name of an employee. If the name is not 'END', it then must read the number of hours worked, and the rate of pay per hour. Then, it must calculate the total pay, and print the name & total pay. This is repeated until the name read is 'END'.
    1. What is the purpose of the name 'END'?
    2. Use a WHILE construct to implement the above description.
    3. Could DO … WHILE be used? Give reasons.
14. Print numbers divisible by k, for the integers from m to n.
15. Read an integer from 1 to 999 and print the integer in words.
    Example, if 325 is read, the output should be: THREE HUNDRED AND TWENTY FIVE

With my best wishes;
Dr. Heba Hamdy