Program: PG
Term and Year: Spring, 2019-2020
Course Code: PGMath150
Course Title: Computer Programing and applications
Exam Type: Practical Exam
Time Allowed: 1hour
Total Points: 30
Professor(s): Dr. Shaimaa Aly Elmorsy

ID: ----------

Name: ----------

Answer all of the following:

Question 1 :- Choose the correct answer: (1 point each)

1. _____ bits are used to represent a symbol in standards ASCII code.
   a) 7 bits
   b) 8 bits
   c) 12 bits
   d) 32 bits

2. _____ bits are used to represent a symbol in Extends ASCII code.
   a) 7 bits
   b) 8 bits
   c) 12 bits
   d) 32 bits

3. _____ bits are used to represent a symbol in Unicode.
   a) 7 bits
   b) 8 bits
   c) 12 bits
   d) 32 bits

4. The actual coding of a program is done by a(n)
   a) systems analyst
   b) Programmer
   c) end-user
   d) database administrator

5. _____ is an example of 4th generation language
   a) Python
   b) SQL
   c) Java
   d) COBOL

6. _____is an example of 5th generation language
    a) Python
    b) SQL
    c) Java
    d) COBOL

7. Program objectives, desired outputs, needed inputs, and processing requirements are all recorded in the
    a) program tracking log
    b) project management database
    c) program specifications document
    d) management information system

8. The information software produces after it has processed the input is called
    a) flowchart
    b) output
    c) objective
    d) prototype

9. The information that a program requires in order to accomplish its objective is called the
    a) data
    b) contribution
    c) effort
    d) input

10. Flowcharts and pseudocode are examples of tools used in the program _____ phase.
    a) specification
    b) design
    c) code
    d) test

Question 2:- Answer with true/ false (1 point each)

1. Systems analysts create the software required for an information system. ( )

2. Programmer create the software required for an information system. ( )

3. In the program specification step, the objectives, outputs, inputs, and processing requirements are determined. ( )

4. You should determine the input for a program before determining its output. ( )

5. The program specification document includes required input and program objectives. ( )

6. "Debugging" refers to the process of eliminating syntax but not logic errors. ( )

7. When a program has a syntax error, it will still run, but will produce unexpected results. ( )

8. When a program has a logic error, it will still run, but will produce unexpected results. ( )

9. When a program has a run-time error, it will never run. ( )

10. A logic error could result from an incorrect calculation made by the programmer. ( )

Question 3:- Answer the following: (2 point each)

1. $(12)_{10}$ → ($)_2$
2. $(111111)_2$ → ($)_{10}$
3. (101)2 + (110)2 = (_____)2 using 3 bits
4. (1 1101)2 + (1110)2 = (_____)2 using 5 bits
5. (1 1111)2 + (1 0111)2 = (_____)2 using 6 bits

GOOD LUCK