Palestine Polytechnic University
College of Information technology and Computer Engineering
Computer Programming Principles 5055
B

Student Name: [redacted]
Date: 1/12/2022
Times: 50 Minutes
Section: Sun, Tue, Thrs 9-10

ضع اشاره بجانب اسم المدرس

○ ازدهار جوابره ○ منال التميمي ○ يوسف صلاح
○ عليان أبو غربيه ○ محمد الجعبري

Question #	1(10)	2(12)	3(8)	4(10)	Total Grade (40)
Grade					37

Question 1: Read these sentences carefully and write T if the sentence is True or F if the sentence is False: **(10 Marks)**

	Questions	T/F
1.	The Assembler translates a high-level program to its equivalent machine language code	T
2.	semantic errors are errors that occur at run-time	T
3.	Number (58) in octal numbering system is a valid number	F
4.	IPO chart clearly define the Input, Processing, and the Output of a problem	T
5.	An algorithm is a general description of main steps that solve a problem and include(details)of the implementation	F
6.	The maximum value that can be formed from 7 bits is 255	F
7.	Debugging is the process of identifying user requirements	F
8.	You need 8 bits to represent one Hexadecimal digit	F
9.	Computer program is a collection of instructions that direct the computer to perform a specific task.	T
10.	Assembly language is a machine-independent language	T

$(2\times2)\times(2\times2)\times(2\times2)\times2$
$4 \quad 4 \quad 4\times2$
$16\times4\times2$
64×2
128

10 11 12 13 14 15
A B C D E F

Question 2: Perform the following conversions: **(12 Marks)**

(Show your work)

Convert $(11101111)_2$ = (239)$_{10}$

7 6 5 4 3 2 1 0
1 1 1 0 1 1 1 1

$2^0 + 2^1 + 2^2 + 2^3 + 2^5 + 2^6 + 2^7$

$1 + 2 + 4 + 8 + 32 + 64 + 128 \Rightarrow 47 + 64 + 128$

1. Convert $(AE)_{16}$ = (174)$_{10}$

A E

$14 \times 16^0 + 10 \times 16^1$

$14 + 160 \Rightarrow 174$

0	0000
1	0001
2	0010
3	0011
4	0100
5	0101
6	0110
7	0111
8	1000
9	1001
A	1010
B	1011
C	1100
D	1101
E	1110
F	1111

2. Convert $(B47)_{16}$ = (5507)$_8$

B 4 7

1011 0100 0111

5 5 0 7

3. Calculate

$(110101)_2 + (111110)_2$ = (1110011)$_2$

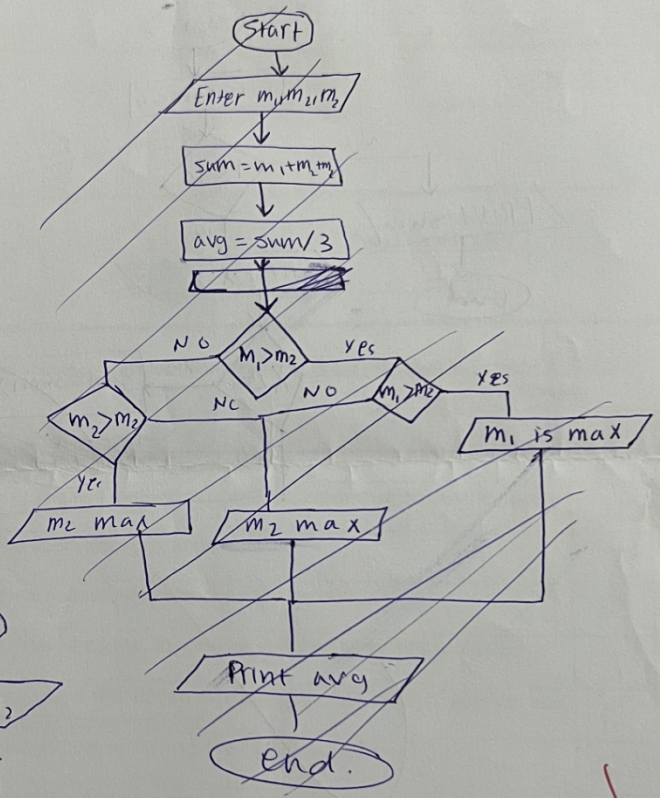
1 1 1 1 1 0
1 1 0 1 0 1

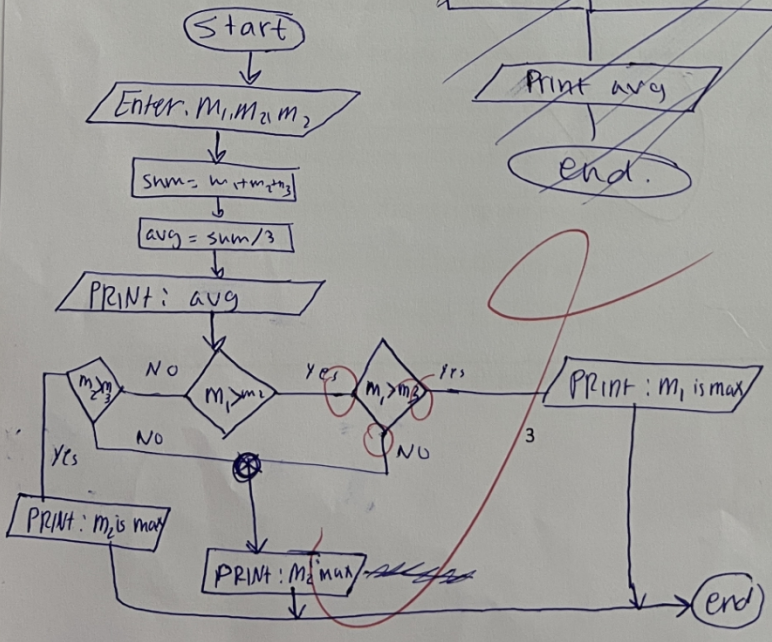
1 1 1 0 0 1 1

PALESTINE POLYTECHNIC UNIVERSITY
COMPUTER PROGRAMMING

Question 3: **(8 Marks)**

Draw a flowchart to read three grades of a student, calculate and print his average, then print the highest grade.

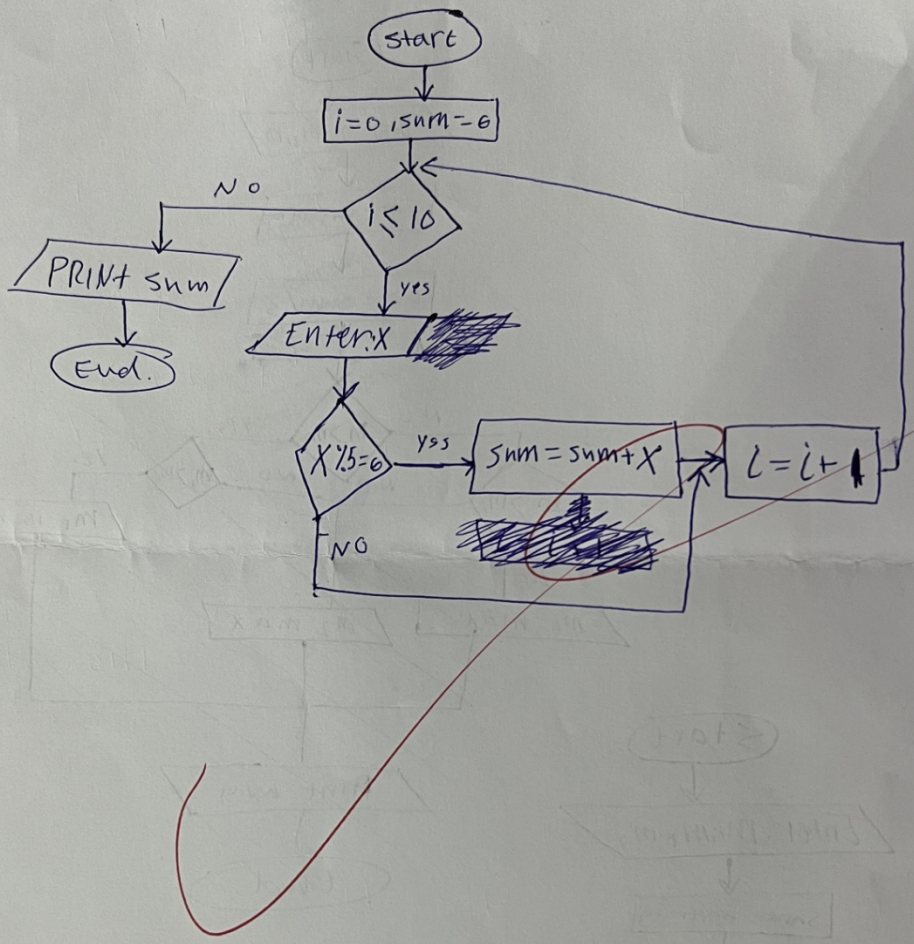




Read X

Question 4: **(10 Marks)**

Draw a flowchart to read 10 numbers, then find the sum of all the numbers divisible by 5 (مجموع الأرقام التي تقبل القسمه على 5)



Good Luck