UTHM
Universiti Tun Hussein Onn Malaysia

UNIVERSITI TUN HUSSEIN ONN MALAYSIA

FINAL EXAMINATION
SEMESTER I
SESSION 2019/2020

COURSE NAME	:	TECHNOLOGY SYSTEM PROGRAMMING I
COURSE CODE	:	BBN 10702
PROGRAMME CODE	:	BBN
EXAMINATION DATE	:	DECEMBER 2019/ JANUARY 2020
DURATION	:	2 HOURS
INSTRUCTION	:	A) ANSWER **ALL** QUESTIONS
		B) PLEASE WRITE YOUR ANSWERS IN THIS QUESTION BOOKLET

THIS QUESTION PAPER CONSISTS OF **SIX (6)** PAGES

Q1   Given the following variable declarations, determine which statements are **VALID** and which are **INVALID**.

```
int numOfApples, numOfOranges;
int vector, digitalTemp;
float average, distance;
char letter, symbol;
```

No	Statements	Answer
(a)	int vector_2 = vector;	
(b)	float float1 = distance;	
(c)	average = 89.4;	
(d)	numOfOranges = (54 * numOfApples) % 3;	
(e)	digitalTemp = (float)average;	
(f)	int vector 2 = numOfApples;	
(g)	distance = distance%average;	
(h)	distance = float(numOfApples);	
(i)	printf("%lf",symbol);	
(j)	printf("%c",&letter);	
(k)	symbol = 'letter';	
(l)	vector = distance/average;	
(m)	numOfApples = (int)average;	
(n)	numOfOranges = -17;	
(o)	scanf("%d",digitalTemp);	

(15 marks)

Q2   Determine the output for each of the following code segments.

No	Code segments	Output
| (a) | ```c
#include <stdio.h>

int main()
{
  printf("This is a final test.");
  printf("Analyze\nthe problem.");

  return 0;}
``` | |
| (b) | ```c
#include <stdio.h>

int main(){
  int p = 5;

  if (p > 5){
     printf("\nWe love Coding");
     printf("\n%d ", 100*p);}
  else{
     printf("\nEnjoy Coding");
     printf("\n%d ", 100+p*2);}
return 0;}
``` | |
| (c) | ```c
#include <stdio.h>

int main(){

int q = 500;

while (q < 504)
{
  if (q%2 == 0)
    printf("\n%d ",q);
  q++;
}
return 0;}
``` | |
| (d) | ```c
#include <stdio.h>

int  main()
{
  for( i=7; i<15; i=i+7)
    printf("%d  \n", i);
  return 0;}
``` | |

(e)
```c
#include <stdio.h>

void testMe1(void);
double testMe2(double a, double b);

int main()
{

printf("%.2lf",testMe2(3.5,5.3));
    testMe1();

    return 0;}

void testMe1(void)
{ printf("\nFind the code\n");}

double testMe2(double a, double b)
{ return a+b;}
```
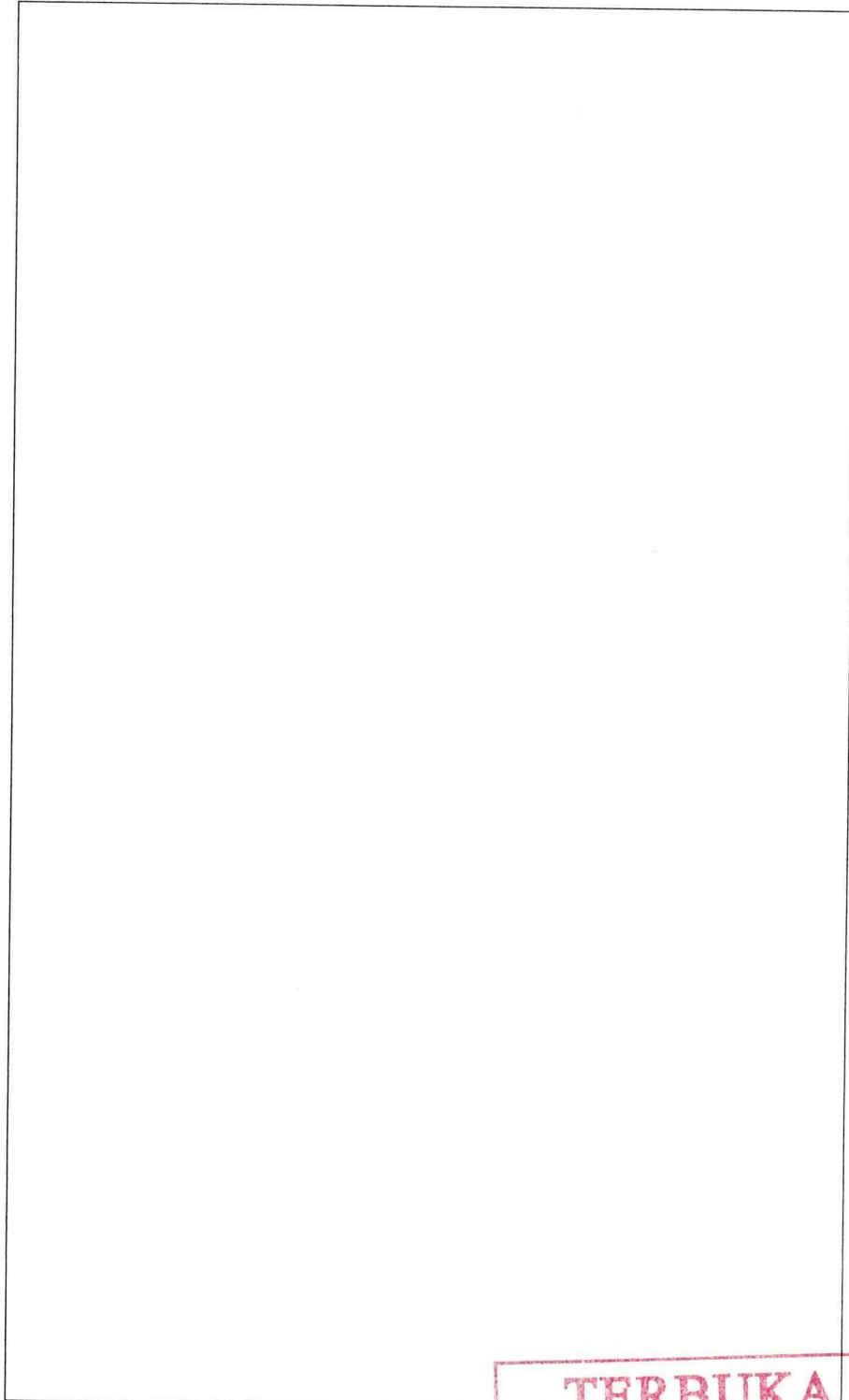
(10 marks)

Q3   You are asked to write a program that can record temperature values in a week. Eventually, the program shall determine the average temperature for the week.

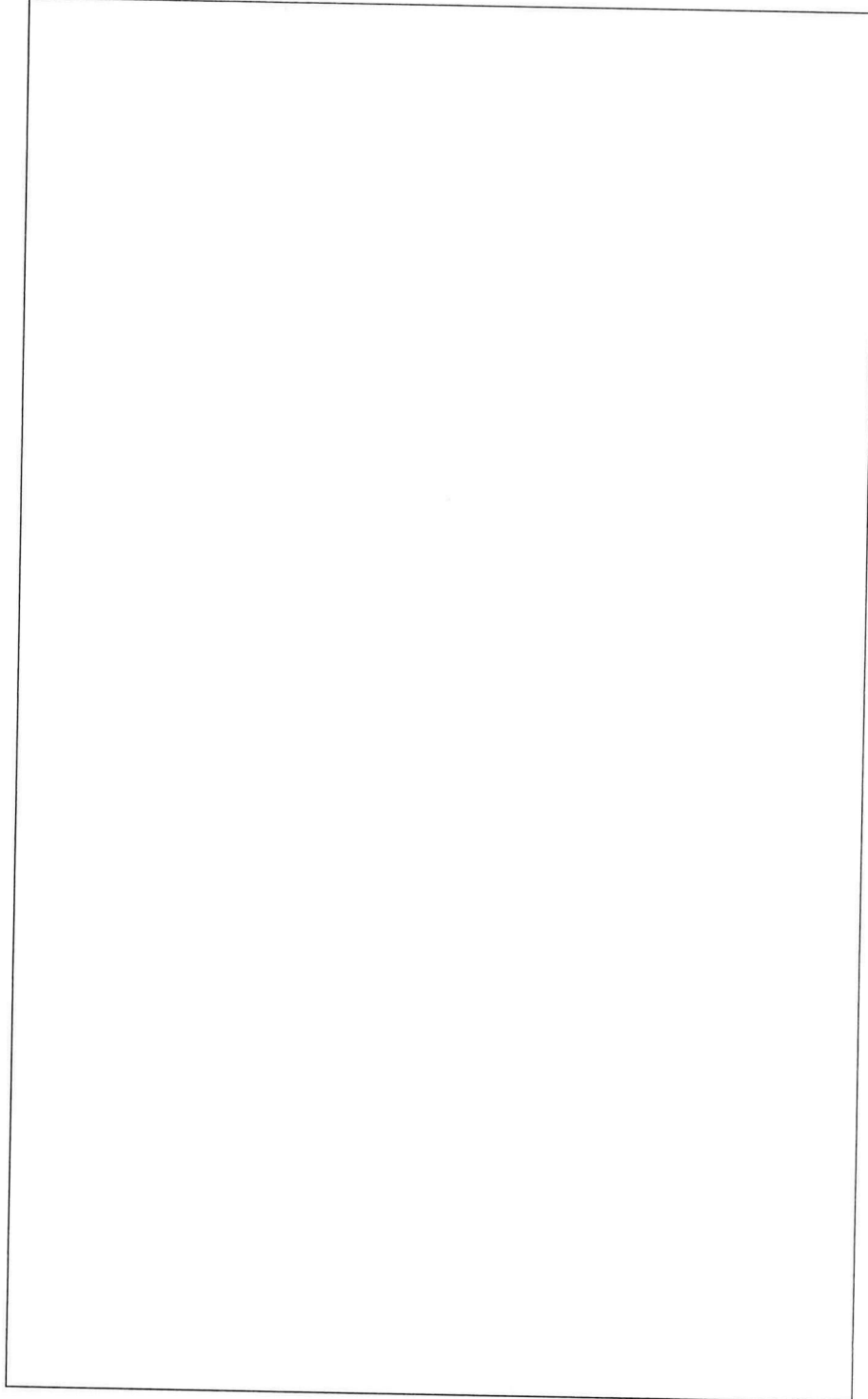(a) Draw a flowchart for the given problem.

Answer:

(10 marks)

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(b) Write a program for the given problem according to the answer in Q3(a).

Answer:

(15 marks)

- END OF QUESTIONS –

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