ECS 102 INTRODUCTION TO PROGRAMMING

ASSESSMENT 2

Time: 45 min **Maximum marks: 25**

Read the Instructions carefully:

- **Student need to attempt only one Question.**
- Attempt the question number matching with the last digit of your roll number.

  For eg: If roll no. is 2010704 then student need to attempt 4th question.

- Roll number ending with 0 need to attempt 10th question.
- Mention your roll no. and question no. in your answer sheet clearly.
- Maximum marks allotted for code is 13 while 12 marks is for flowchart.
- Draw flowchart and submit it along with the code in the assignment created in your respective Lab GC (like you submit your lab tasks) within 45 mins.
- Flowchart can be hand written (jpg) or a document (word/pdf) while code should be submitted with .c extension file or as a text file (notepad).
- Be strict with the submission timing. Late submissions will not be considered.

Ques1) Write a program to print the shown pyramid pattern with the series shown below. Take x=1.

$$S = 1 + x + x^2 + \ldots.. + x^n$$

			1			
		1+x		$1+x+x^2$		
	$1+x+x^2+x^3$		$1+x+x^2+x^3+x^4$		$1+x+x^2+x^3+x^4+x^5$	
$1+x+....+x^6$		$1+..+x^7$		$1+....+x^8$		$1+x+....+x^9$

Ques2) Write a program to print the shown pyramid pattern with the series shown below. Take x=1.

$$S = 1 + x + x^2 + \ldots.. + x^n$$

			1
		1+x	$1+x+x^2$
	$1+x+....+x^3$	$1+x+....+x^4$	$1+x+....+x^5$
$1+x+....+x^6$	$1+x+....+x^7$	$1+x+....+x^8$	$1+x+....+x^9$

Ques3) Write a program to print the shown pyramid pattern with the series shown below. Take x=1.

$$S = 1 + x + x^2 + \ldots.. + x^n$$

1	1+x	$1+x+x^2$	$1+x+x^2+x^3$
$1+x+....+x^4$	$1+x+....+x^5$	$1+x+....+x^6$	
$1+x+....+x^7$	$1+x+....+x^8$		
$1+x+....+x^9$			

Ques4) Write a program to print the shown pyramid pattern below. Take x=1.

			1*(1x)			
		1*(2x)	2*(2x)	3*(2x)		
	1*(3x)	2*(3x)	3*(3x)	4*(3x)	5*(3x)	
1*(4x)	2*(4x)	3*(4x)	4*(4x)	5*(4x)	6*(4x)	7*(4x)

Ques5) Write a program to print the pyramid pattern below. Take x=1.

			x			
		x-1	x	x		
	x-1	x-1	x	x	x	
x-1	x-1	x-1	x	x	x	x

Ques6) Write a program to print the shown pyramid pattern below. Take x=1.

			x			
		x	$(1+x)^2$	$(2+x)^2$		
	x	$(1+x)^2$	$(2+x)^2$	$(3+x)^2$	$(4+x)^2$	
x	$(1+x)^2$	$(2+x)^2$	$(3+x)^2$	$(4+x)^2$	$(5+x)^2$	$(6+x)^2$

Ques7) Write a program to print the shown pyramid pattern below. Here, the value of x=1.

x	$(x+1)^2$	$(x+2)^2$	$(x+3)^2$
$(x+1)^2$	$(x+2)^2$	$(x+3)^2$	
$(x+2)^2$	$(x+3)^2$		
$(x+3)^2$			

Ques8) Write a program to print the shown pyramid pattern below. Take x=1.

x						
x	x+1	x				
x	x+1	x+2	x+1	x		
x	x+1	x+2	x+3	x+2	x+1	x

Ques9) Write a program to print the shown pyramid pattern shown below. Take x=1.

		x		
	1+x	2+x	3+x	
4+x	5+x	6+x	7+x	8+x

Ques10) Write a program to print the shown pyramid pattern shown below. Take x=1.

		x		
	$(1+x)^2$	$(2+x)^2$	$(3+x)^2$	
$(4+x)^2$	$(5+x)^2$	$(6+x)^2$	$(7+x)^2$	$(8+x)^2$