

## ASSIGNMENT-2

**Submission date:**

1. Explain advanced assembler directives with suitable example
2. Explain Design of assembler & design criteria for assembler.
3. Explain algorithm for single pass & multi pass assembler.
4. Explain design of two pass assembler.
5. Consider following assembly language program:  
 Show (i) Contents of Symbol Table (ii) Intermediate codes using Variant I representation

	START	101
	READ	N
	MOVER	BREG, ONE
	MOVEM	BREG, TERM
AGAIN	MULT	BREG, TERM
	MOVER	CREG, TERM
	ADD	CREG, ONE
	MOVEM	CREG, TERM
	COMP	CREG, N
	BC	LE, AGAIN
	MOVEM	BREG, AGAIN
	PRINT	RESULT
	STOP	
N	DS	1
RESULT	DS	1
ONE	DC	'1'
TERM	DS	1
	END	

Instruction opcode: STOP – 00, ADD – 01, MULT – 03, MOVER  
 MOVEM – 05, COMP – 06, BC – 07, READ – 09, PRINT – 10, LE

Assembler directives: START – 01, END – 02

Declaration statements: DC – 01, DS – 02

Register code: BREG – 02, CREG – 03

6. What is macroprocessor? Explain steps of macro processor design.
7. What are advanced macro programming facilities. Explain with eg.
8. Explain uses and field of following tables of macro:  
 KPDTAB MDT EVTAB SSTAB
9. Draw a flowchart and explain simple one pass macro processor.
10. Explain following terms:
  - (1) Expansion time variable
  - (2) Semantic expansion

(3) Positional parameter