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Roll No: U18CO081

Class: BTech III, Computer Eng.

Sem: Semester 6

System Softwares
Tutorial 5

Ans 1;

Table of Incomplete Instruction

LC No.	Incomplete Instruction
100	A
101	B
102	='9'
103	∅D
104	='23'
500	='7'
502	='7'

Literal Table

LitNo	Literal	Address
01	='9'	105
02	='23'	106
03	=7	504

Symbol Table

SymNo	Symbol	Address
01	A	107
02	B	501
03	D	503
04	Label	107
05	LI	500

Pool Table

01
03

Target Code

00	01	-	100
100	01	01	107
101	09	-	501
102	03	02	105
103	04	02	503
104	08	03	106
105	-	-	009
106	-	-	023
107	-	-	003

No code generation
No code generation

500	05	03	504
501	-	-	010
502	02	03	504
503	-	-	008

Ans 2.

Source Program	Intermediate Representation	Target Code
	01 – 100	
START 100	100 (IS, 1) (S, 02)	01 09 107
MOVER AREG, A	101 (IS, 09) (S, 5)	09 - 504
Loop: PRINT B	102 (IS, 03) (2) (L, 01)	03 02 105
ADD BREG, ='9'	103 (IS, 04) (2) (S, 06)	04 01 507
SUB BREG, D	104 (IS, 08) (3) (L, 02)	08 03 106
COMP CREG, ='23'	105 (AD, 05)	09
LTORG	106 (B)	23
	107 (DL, 01) (C, 3)	03
A DS 3	108 (AD, 03) (S, 101)	-
LABEL EQU LOOP	109 (AD, 04) (C, 500)	-
ORIGIN 500	500 (IS, 05)(3)(L, 03)	05 03 502
L1 MULT CREG, ='7'	501 (IS, 04)(2)(L, 04)	04 02 503
SUB BREG, ='93'	502 (AD, 05)	07
LTORG	504 (DL, 02) (C, 10)	93
B DC 10	505 (IS, 02) (3) (L, 05)	10
MOVEM CREG, ='7'	506 (IS, 09) (L, 05)	02 03 508
PRINT ='7'	507 (DL, 02) (L, 8)	09 508
D DC 8		07
END		

Literal Table

No.	Literal	Address
01	='9'	105
02	='23'	106
03	='7'	502
04	='93'	503
05	='7'	508

Pool Table

01
03
05

Symbol Table

No.	Symbol	Address
1	Loop	101
2	A	107
3	Label	104
4	L1	500
5	B	504
6	D	507