1.

*Program Exercise1:*

0000 CMP R01, R02

0005 JGT $L0

0009 HLT

0010 L0

0010 MOV #8, R03

0016 HLT

2.

*Program Exercise2:*

0000 CMP R01, R02

0005 JLE $L0

0009 HLT

0010 L0

0010 MOV #-5, R03

0016 HLT

3.

*Program Exercise3:*

0000 CMP #0, R01

0006 JEQ $L1

0010 MOV #1, R03

0016 ADD R01, R03

0021 HLT

0022 L1

0022 MOV #5, R03

0028 HLT

4.

*Program Exercise4:*

0000 MOV #0, R02

0006 L0

0006 ADD #2, R02

0012 CMP #10, R02

0018 JNE $L0

0022 HLT

5.

*Program Exercise5:*

0000 MOV #8, R04

0006 L0

0006 CMP #0, R04

0012 JGT $L0

0016 HLT

6.

*Program Exercise6:*

0000 MOV #0, R05

0006 MOV #12, R09

0012 L0

0012 ADD #1, R05

0018 CMP R05, R09

0023 JGE $L0

0027 HLT

7.

*Program Exercise7:*

0000 MSF

0001 CAL $L1

0005 L1

0005 PSH #8

0009 PSH #2

0013 POP R01

0016 POP R02

0019 ADD R01, R02

0024 PSH R02

0027 HLT

8.

*Program Exercise8:*

0000 L2

0000 ADD #1, R01

0006 PSH R01

0009 CMP #15, R01

0015 JNE $L2

0019 MOV #1, R04

0025 L1

0025 POP R02

0028 POP R03

0031 ADD #1, R04

0037 ADD R02, R03

0042 PSH R03

0045 CMP #15, R04

0051 JNE $L1

0055 HLT

9.

*Program Exercise9:*

0000 STB #65, 20

10.

*Program Exercise10:*

0000 MOV #51, R04

0006 STB R04, 21

0012 HLT

11.

*Program Exercise11:*

0000 MOV #22, R04

0006 STB #58, @R04

0012 HLT

12.

*Program Exercise12:*

0000 LDB 22, R10

0006 HLT

13.

*Program Exercise13:*

0000 MOV #23, R04

0006 MOV #47, R01

0012 L1

0012 ADD #1, R01

0018 ADD #1, R04

0024 STB R01, @R04

0029 CMP #33, R04

0035 JNE $L1

0039 HLT

14.

*Program Exercise14:*

0000 MOV #23, R04

0006 MOV #47, R01

0012 L1

0012 ADD #1, R01

0018 ADD #1, R04

0024 STB R01, @R04

0029 CMP #33, R04

0035 JNE $L1

0039 MOV #23, R05

0045 MOV #79, R07

0051 L2

0051 ADD #1, R05

0057 ADD #1, R07

0063 LDB @R05, R06

0068 STB R06, @R07

0073 CMP #90, R07

0079 JNE $L2

0083 HLT