填空

a) $(00100011)_B$

b) $(15)_H$

c) $(11011101)_B$

d) $(132)_D$

e) 是

f) `0xff88`

g) `0x00012344,0x00012354`

```
# t0 = mem[a0]
# a0 = a0 + 4
# t1 = t0 & 1
# 若t0是偶数返回 loop
```

第 2 题

```
# 0x00082021
# 0x34020004
# 0x0000000c
# 0x2108ffff
# 0x1500fffb
# 0x32f0ffc0
# 0x01f02025
# 0xa2c40004
# 0x0017b902
```

第 3 题

```
.data
example100: .space 400

.text
main:
    la $a0, example100 # load address

    li $t0, 0 # int i = 0
    li $s0, 0 # int sum = 0
for:
    beq $t0, 100, return # i == 100
    lw $t1, ($a0) # $t1 = *a0
    add $s0, $s0, $t1 # sum += $t1
    sw $s0, ($a0) # *a0 = sum

for_end:
    add $a0, $a0, 4 # a0++
    add $t0, $t0, 1 # i++
    j for

return:
    li $v0, 10 # return 0
    syscall
```

第 4 题

```
.data
src: .space 400
dest: .space 400

.text
main:
    la $a0, src # load address
    la $a1, dest # load address

    li $t0, 0 # int i = 0
for:
    beq $t0, 100, return # i == 100
    lw $t1, ($a0) # $t1 = *a0
    sw $t1, ($a1) # *a1 = $t1

for_end:
    add $a1, $a1, 4 # a1++
    add $a0, $a0, 4 # a0++
    add $t0, $t0, 1 # i++
    j for

return:
    li $v0, 10 # return 0
    syscall
```

第 5 題

```
.data
endl: .asciiz "\n"

.text
main:
    li $v0, 5
    syscall
    move $a0, $v0 # cin >> $a0

    jal abs

    li $v0, 1
    syscall

    la $a0, endl
    li $v0, 4
    syscall

    li $v0, 5
    syscall
    move $a0, $v0 # cin >> $a0

    jal abs

    li $v0, 1
    syscall

    li $v0, 10
    syscall

abs:
    bgez $a0, return
    sub $a0, $0, $a0 # -$a0
return:
    jr $ra
```

第 6 题

```
.data
array: .space 400

.text
main:
    li $v0, 5
    syscall
    move $s0, $v0 # cin >> n

    la $a1, array
    add $a0, $a1, 4

    li $t0, 1
    sw $t0, ($a0) # fib[1] = 1
    sw $t0, ($a1) # fib[0] = 1

    li $t0, 2 # int i = 2

for:
    bge $t0, $s0, return # i == n
    lw $t2, ($a0) # fib[i - 1]
    lw $t3, ($a1) # fib[i - 2]
    add $t1, $t2, $t3 # fib[i] = fib[i - 1] + f[i - 2]
    add $a0, $a0, 4 # a0 = fib[i]
    sw $t1, ($a0)
    add $a1, $a1, 4 # a1 = fib[i - 1]
for_end:
    add $t0, $t0, 1 # i++
    j for

return:
    lw $t0, ($a0)
    move $a0, $t0
    li $v0, 1
    syscall

    li $v0, 10
    syscall
```

第 7 题

```
.text
main:
    li $v0, 5
    syscall
    move $a0, $v0

    li $v0, 5
    syscall
    move $a1, $v0

    li $v0, 5
    syscall
    move $a2, $v0

    jal fun

    li $v0, 10
    syscall

fun:
    bgt $a0, $a1, if1
    j if1_end
if1:
    move $t0, $a0
    move $a0, $a1
    move $a1, $t0
if1_end:
    bgt $a1, $a2, if2
    j return
if2:
    move $t0, $a1
    move $a1, $a2
    move $a2, $t0

    bgt $a0, $a1, if3
    j return
if3:
    move $t0, $a0
    move $a0, $a1
    move $a1, $t0
return:
    jr $ra
```