

char *itoa (unsigned int n, unsigned int b, char *s)

$\$a0 \rightarrow \$n0$ $\$a1 \rightarrow \$b1$ $\$a2 \rightarrow \$s2$

callee-saved: $p \rightarrow \$s3$

pointer *p = s;

Logo: addiu $\$r0, \$r0, -20$

sw $\$ra, 0(\$r0)$

sw $\$r0, 4(\$r0)$

sw $\$r1, 8(\$r0)$

sw $\$r2, 12(\$r0)$

sw $\$r3, 16(\$r0)$

digit = $\$t0$

do {

digit = $n \% b$; \rightarrow rem $\$t0, \$r0, \$r1$

$n = n / b$; \rightarrow div $\$s0, \$r0, \$r1$

$*p++ = \text{toascii}(\text{digit});$

move $\$a0, \$t0$

jal toascii

sb $\$v0, 0(\$r3)$

addi $\$s3, \$s3, 1$ $*p++$