

NAME - AISHWARYA AJAY  
VENKATESHA

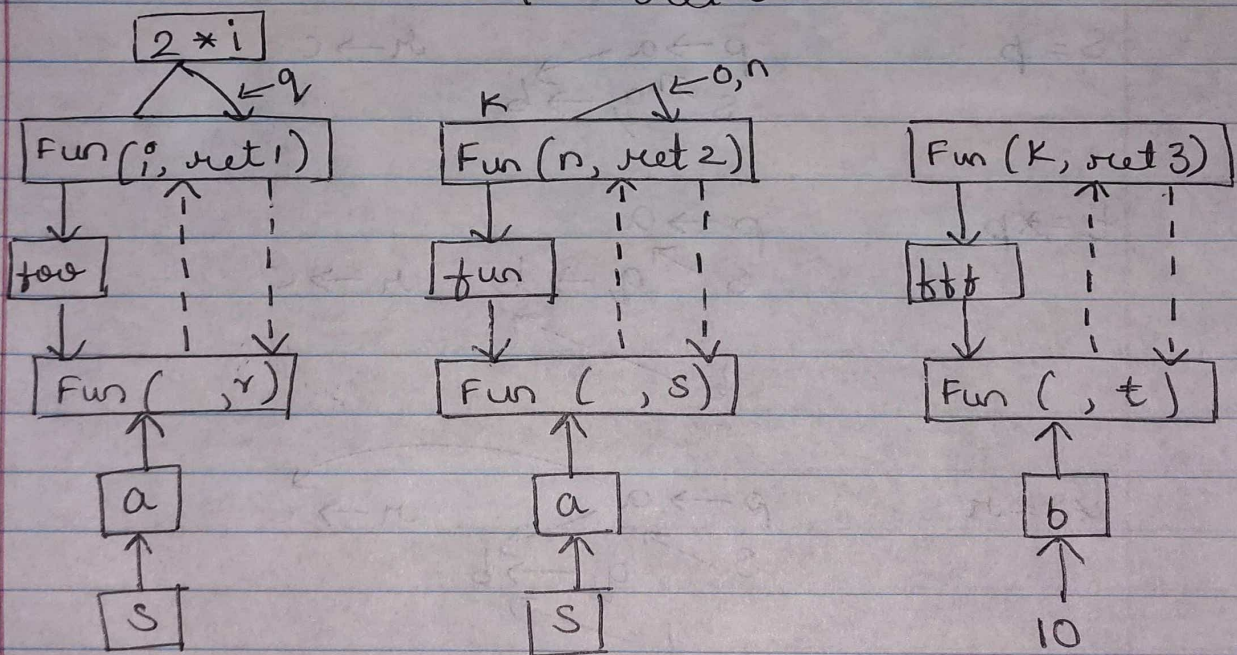
WSU 10 - EH25P738

## Quiz 2 Solutions

Q1  $Fun(i, \text{return } 1) \Leftarrow \text{foo}$   
 $q \Leftarrow \text{ret } 1$

$Fun(n, \text{ret } 2) \Leftarrow \text{fun}$   
 $n \Leftarrow \text{ret } 2$   
 $0 \Leftarrow \text{ret } 2$

$Fun(k, \text{ret } 3) \Leftarrow \text{fff}$   
 $\Leftarrow \text{ret } 3$



$x = \{10\}$      $s = \{5\}$      $k = \{\text{error}, 10\}$



Q2

$p = \&a;$

$p \rightarrow a$

$q = \&b;$

$p \rightarrow a$

$q \rightarrow b$

$*p = q;$

$p \rightarrow a$

$q \rightarrow b$

$r = \&c;$

$p \rightarrow a$

$q \rightarrow b$

$r \rightarrow c$

$s = p$

$p \rightarrow a$

$s \rightarrow q \rightarrow b$

$r \rightarrow c$

$t = *p$

$p \rightarrow a$

$s \rightarrow q \rightarrow b$

$r \rightarrow c$

$t \rightarrow$

$*s = r$

$p \rightarrow a$

$s \rightarrow q \rightarrow b$

$r \rightarrow c$

$t \rightarrow$

$t = \&d$

$p \rightarrow a$

$s \rightarrow q \rightarrow b$

$r \rightarrow c$

$t \rightarrow d$



$\text{pts}(p) = \{a\}$   
 $\text{pts}(q) = \{b\}$   
 $\text{pts}(r) = \{c\}$   
 $\text{pts}(s) = \{a\}$   
 $\text{pts}(t) = \{b, c, d\}$   
 $\text{pts}(a) = \{b, c\}$   
 $\text{pts}(b) = \emptyset$   
 $\text{pts}(c) = \emptyset$   
 $\text{pts}(d) = \emptyset$

Q 3 Backward Static Slicing,  $(S_{10}, \gamma)$

$S_1: \text{read}(x);$   
 $S_2: \text{if } (x < 0)$   
     then  
 $S_3: \gamma := f_1(x);$   
     else  
 $S_5: \text{if } (x = 0)$   
     then  
 $S_6: \gamma := f_2(x);$   
     else  
 $S_8: \gamma := f_3(x);$   
         end-if;  
     end-if;  
 $S_{10}: \text{write}(\gamma);$   
     end