

- A.** Which registers hold program values *x*, *n*, *result* and *mask*?
x in %rdi, *n* in %esi, *result* in %rax, *mask* in %rdx.
- B.** What are the initial values of *result* and *mask*?
result = 0, *mask* = 1.
- C.** What is the test condition for *mask*?
mask \neq 0.
- D.** How does *mask* get updated?
mask = *mask* $\&$ *n*.
- E.** How does *result* get updated?
result $\text{---} = \text{mask} \& \text{x}$.
- F.** Fill in all the missing parts of the C code.
See main.c.