

Question 5. Write an algorithm and flowchart to print first 100 prime numbers.

Answer 5.

# Algorithm

**Step 1:** Start.

**Step 2:** Assume a variable  $N$  and initialize it to 1

**Step 3:** Assume a variable  $k$  and initialize it to 1

**Step 4:** If  $k$  is equal to 100 go to **Step 13**.

**Step 5:** Assume a variable  $ct$  and initialize it to 0

**Step 6:** Assume another variable  $i$  and initialize it to 1

**Step 7:** If  $i$  is less than  $N$  then GO TO **Step 11**.

**Step 8:** If  $N$  is divisible by  $i$  add 1 to variable  $ct$ .

**Step 9:** Add 1 to variable  $i$ .

**Step 10:** GO TO **Step 7**.

**Step 11:** If value of  $ct$  is equal to 2 print  $N$  and  
add 1 to variable  $k$ .

**Step 12:** GO TO **Step 4**.

**Step 13:** End.