Region growing algorithm:

PROGRAM:

r <- max No. of pixel rows in image;

c <- max No. of pixel columns in image;

//g(r,c)=0 for background

SET g\_label <- 2;

FOR i IN 1 TO r-1:

FOR j IN 1 TO c-1:

Stack\_empty=True;

IF g(i,j) Notequalto 0:

Value <- g(i,j);

label\_and\_check\_neighbor(g(i,j),g\_label, Value);

ENDIF;

WHILE stack\_empty = false:

do

pop element (i,j) off the stack;

label\_and\_check\_neighbor(g(i,j),g\_label, Value);

ENDWHILE;

g\_label = g\_label + 1

ENDFOR; \\ for j

ENDFOR; [\\ for](file:///\\for) i

ENDPROGRAM;

SUBPROGRAM:

label\_and\_check\_neighbor(g(r,e),g\_label, Value)

g(r,e) <- g\_label;

FOR R IN r-1 TO r+1:

FOR E IN 1 TO c+1:

IF g(R,E) equalto Value:

Push (R,E) onto Stack;

stack\_empty=False;

ENDIF;

ENDFOR;

ENDFOR;

END SUBPROGRAM;