

```

8   for each  $v_i \in \langle v_a, \dots, v_b \rangle - \{v_b\}$  do
9        $C[v_i] := C[v_i] + \frac{|V_{G_a}|}{|SP(v_a, v_b)|}$  ;
10      if  $v_b$  is also a connecting vertex then
11           $G_b :=$  Subgraph connected by a
12              connection vertex  $v_b$  ;
13          for each  $v_i \in \langle v_a, \dots, v_b \rangle$  do
14               $C[v_i] := C[v_i] + \frac{|V_{G_a}| \cdot |V_{G_b}|}{|SP(v_a, v_b)|}$  ;
15
16      if  $G_a$  is disconnected then
17           $C[v_a] := C[v_a] + |V_{G_a}|^2 - \sum_{l=1}^n (|V_{G_a^l}|^2)$ 

```