Algorithm: $Modified\_Maximal\_Clique$

Data: $Graph = G(V, E)$, $v \in Sequence\ Nodes$, $e \in E = \{(u, v), u, v \in V,\}$,min_clique_size

Result: $CliqueList \leftarrow List\ of\ Maximal\ Cliques$

begin
  $degemeracy\_ordered\_nodes \leftarrow DegeneracyOrder(Graph)$
  forall the $vertex\ v\ \in\ P \setminus \Gamma\ (u)$ **do**
    $P \leftarrow \Gamma(v_i)\ \cap\ v_{i+1}, ..., v_{n-1}$
    $X \leftarrow \Gamma(v_i)\ v_0, ..., v_{i-1}$
    $Tomita(P, v_i, X)$
  end
end

Algorithm: *Tomita Algorithm*

Data: $Graph = G(V, E)$, $v \in Sequence\ Nodes$, $e \in E = \{(u, v), u, v \in V\}$,min_clique_size P , R , X

Result: $CliqueList \leftarrow List\ of\ Maximal\ Cliques$

begin

  if $R \cup X \leq min\_clique\_size$ **then return**;

  if $P \cup X = \emptyset$ **then return** R *as max clique* ;

  choose pivot $u \in P \cup X$ *that maximize* $|P \cap \Gamma(u)|$

  forall the *vertex* $v \in P \setminus \Gamma(u)$ **do**

    $P \leftarrow P \setminus \{v\}$

    $X \leftarrow X \cup \{v\}$

    $Tomita\ (P \cap \Gamma(v), R \cup \{v\}, X \cap \Gamma(v))$

  end

end

Algorithm: *GetReprentativeCliques*

Data: $MaximalCliques \leftarrow List\ of\ Maximal\ Clique\ Sets$
$Graph = G(V, E)$
Result: $RepresentativeCliques \leftarrow List\ of\ Sets\ of\ Representative\ Cliques$

begin
  create $V\_C\ Map: v \rightarrow \{list\ of\ Cliques\}\ map\ from\ MaximalCliques$
  create $V\_C\_Rep\ Map: v \rightarrow \{rep\ Clique\}\ map$
  forall the *vertex* $v \in Keys(V\_C)$ **do**
    $C \leftarrow V\_C(v)$
    Select $c \in C$ *which* $\max_{c \in C}\{\Gamma(v) \cap c\}$ *where* $\Gamma(v) = neighbors\ of\ v\ in\ G$
    $V\_C\_Rep \leftarrow (v, c)$
  end
end
create $C\_V\ Map: C \rightarrow \{list\ of\ vertices\ v\}\ map\ by\ inverting\ V\_C\_Rep$
$RepresentativeCliques \leftarrow values(C\_V)$