1. Start of algorithm.
2. Generate the Reed-Solomon code and sore the code in the array key\_set[0:no\_of\_nodes-1][0:q-2][0:1];
3. Store the node ids in the array node\_id[0:no\_of\_nodes-1];
4. Randomize the elements of node\_id[0:no\_of\_nodes-1];
5. Set merge\_node=;
6. For i=0:merge\_node-1
7. {
8. Pick the first node from the arry node\_id and set merge\_node[j][0]:=node\_id1;
9. Keep the keys of node\_id1 in the new array called merge\_key\_set[0:merge\_node-1][0: (2\*(q-1))-1][0:1];
10. Mark node\_id1 as ‘marked’;
11. Then pick another nodenode\_id2 from the node\_id[] in such a way that node\_id1 and node\_id2 has a common key; //in this scheme the maximum number of common keys between any pair of given nodes is 1
12. set merge\_node[j][1]:=node\_id2;
13. Keep the keys of node\_id2 in the array merge\_key\_set[0:merge\_node-1][0: (2\*(q-1))-1][0:1];
14. Mark node\_id2 as ‘merked’
15. j:=j+1;
16. } //continue the merging procedure till all the node exhaust
17. left\_over \_nodes=merge\_node-j;
18. If (left\_over!=0) then
19. {
20. Find all the unmarked node\_ids and store them to a new array called left[0:left\_over\_nodes-1];
21. Merge the left over nodes and store their keys in the merge\_key\_set array;
22. Continue this merging till ll the left over nodes exhausts;
23. }
24. End