

**Question** [2 marks]

Show the result of inserting the letter **n** into the red-black tree given below (rooted at *j*). Note that only the search path is shown, and you need to include only the same nodes in your answer. Indicate any red edges with a lowercase *r* label on the edge as I have done. Your final tree should itself be a red-black tree. (Note:  $\triangle$  = subtree,  $\square$  = leaf.)

