

S3 Algorithm. Prompt construction.

```
Input: len_prompt = 3 // number of sentences
prompt  $\leftarrow \emptyset$  ;
 $a_1, a_2, a_3, a_4 \leftarrow$  sample ( $len\_prompt + 1$ ) tokens from domain  $D$  ;
for  $i = 1$  to  $len\_prompt$  do
  |  $s \leftarrow a_i R a_{i+1}$  ;
  |  $\bar{s} \leftarrow a_i S a_{i+1}$  ;
  | if  $BEL_M(s) > BEL_M(\bar{s})$  then
  | | prompt  $\leftarrow$  append  $s$  to prompt ;
  | else
  | | prompt  $\leftarrow$  append  $\bar{s}$  to prompt ;
  | end
end
return  $prompt$ 
```