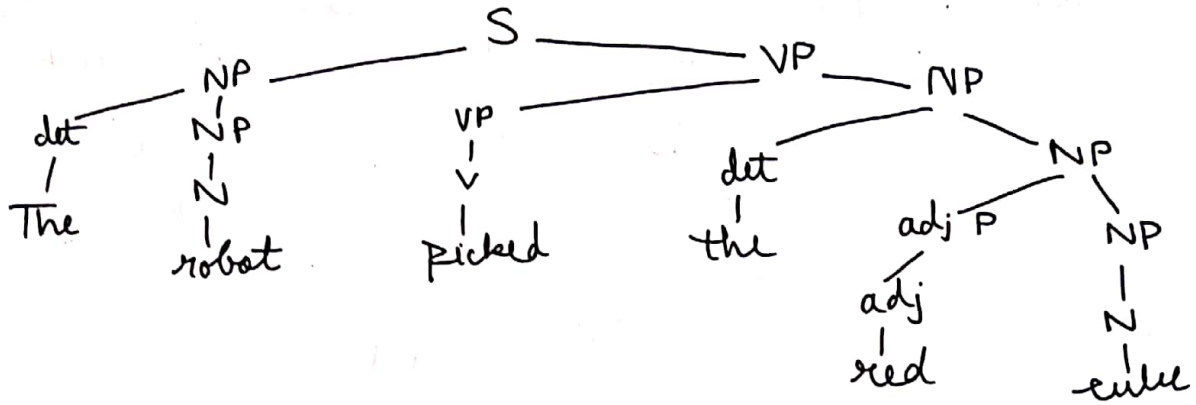
Natural Language Processing - Assignment 1

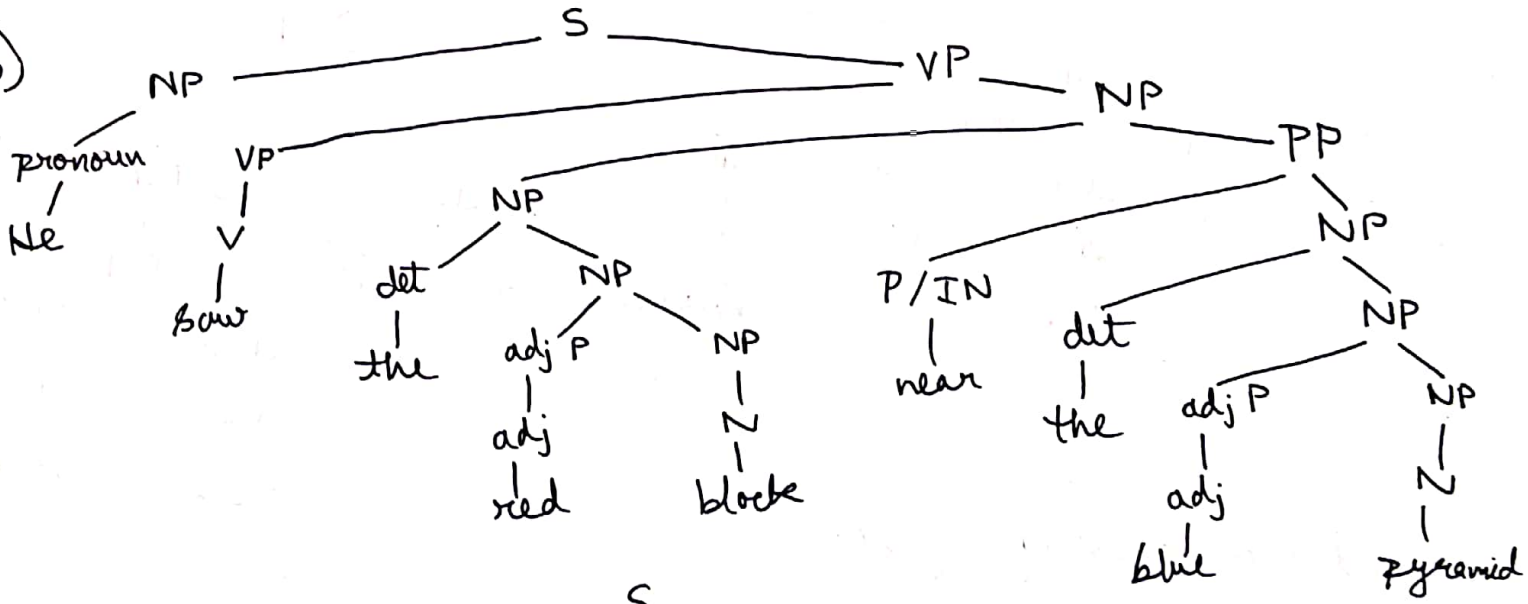
Sayar Ghosh Roy - 2017 1047

1) Phrase Structure Trees:

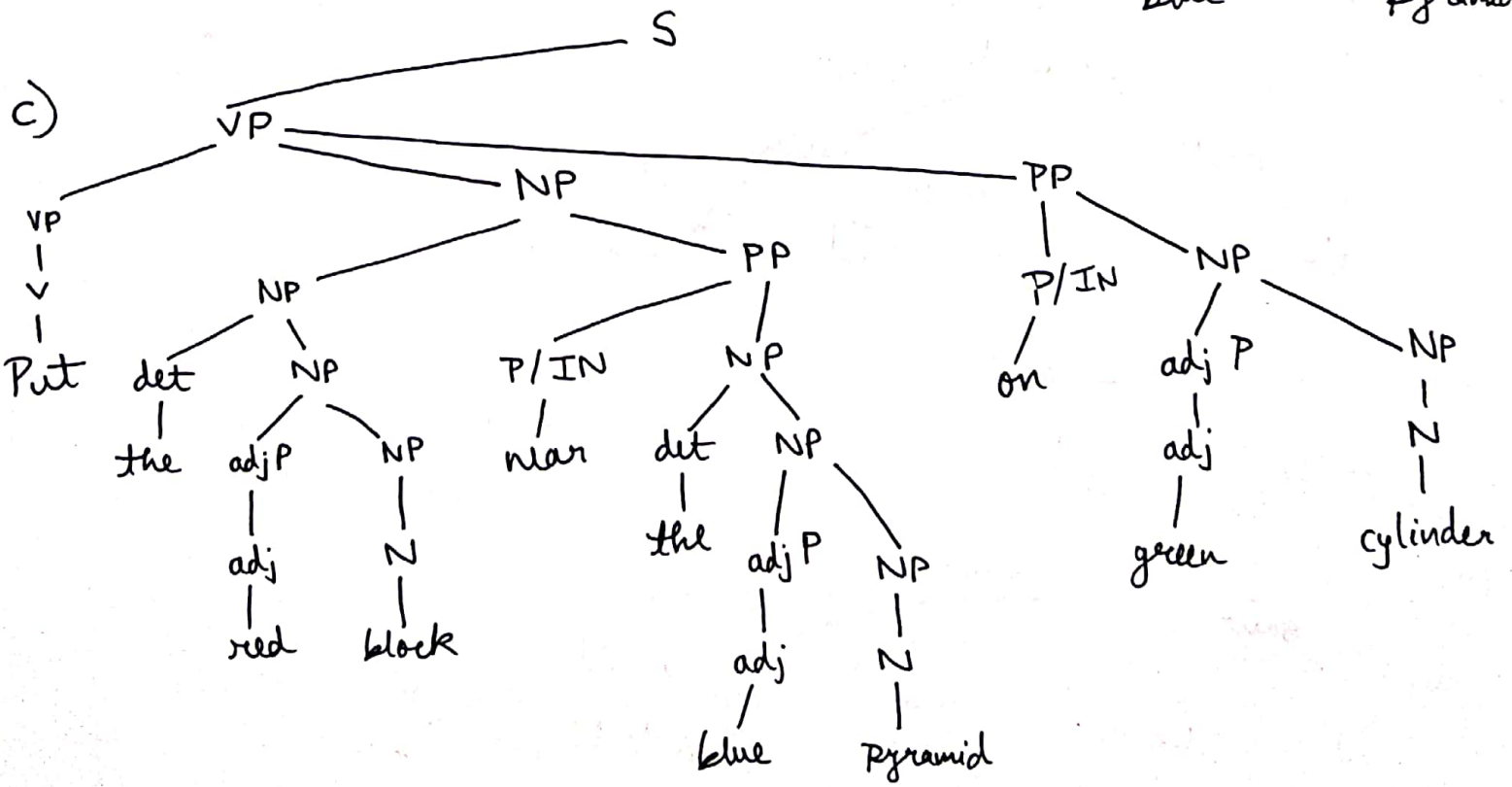
a)



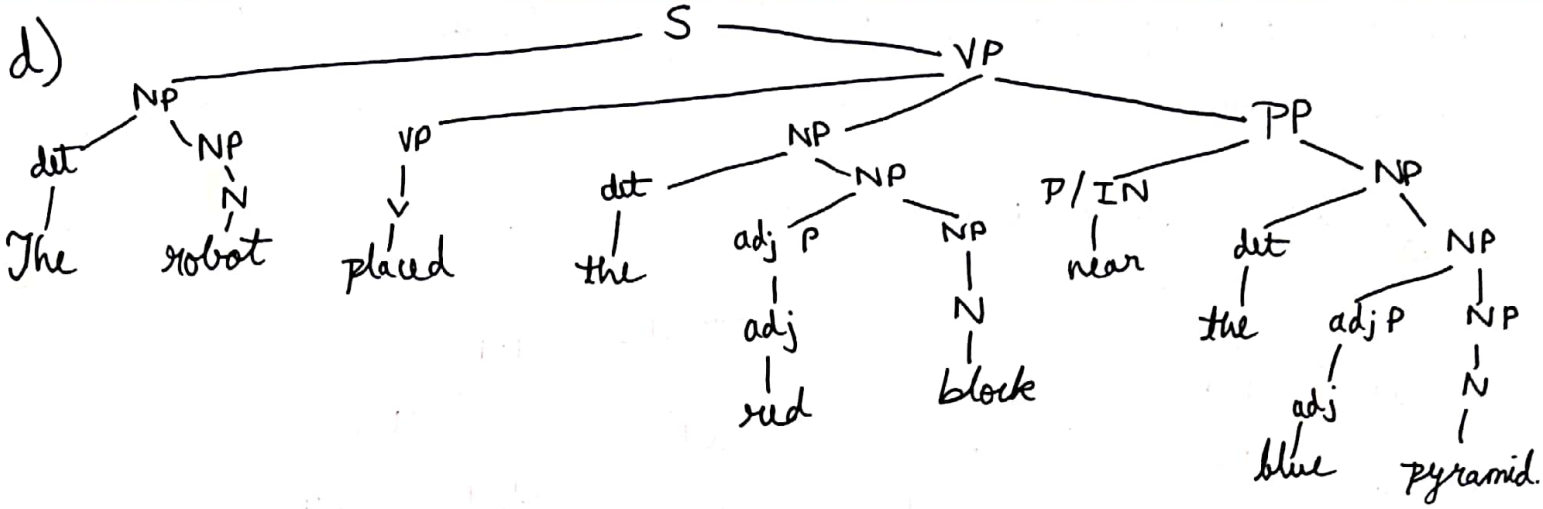
b)



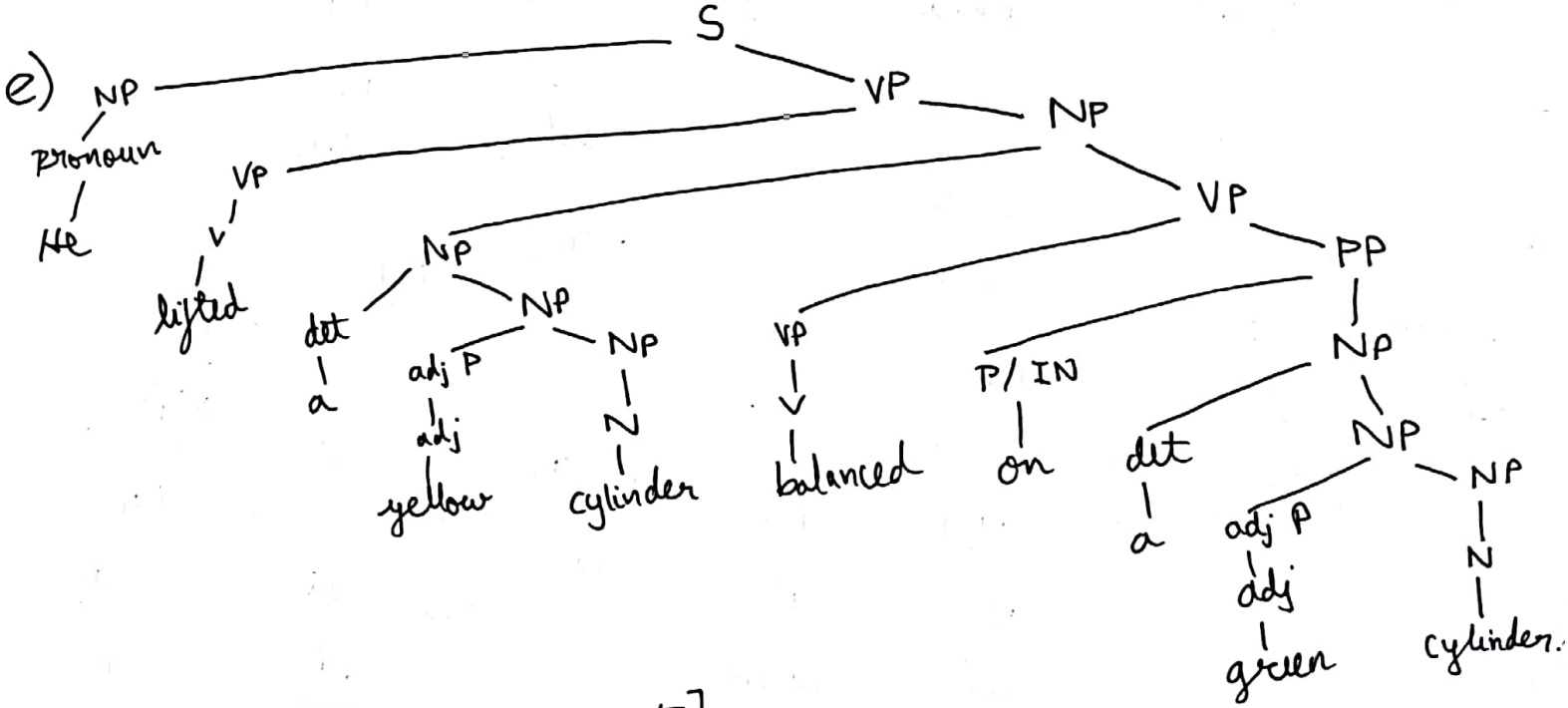
c)



d)

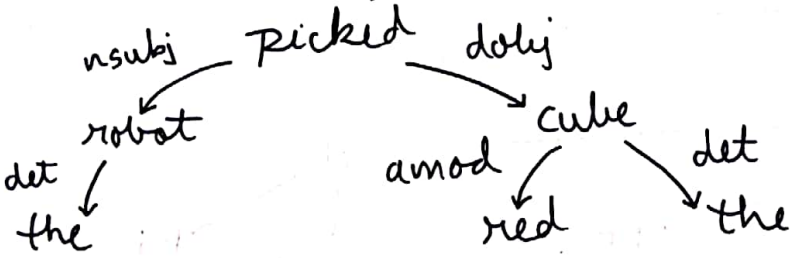


e)

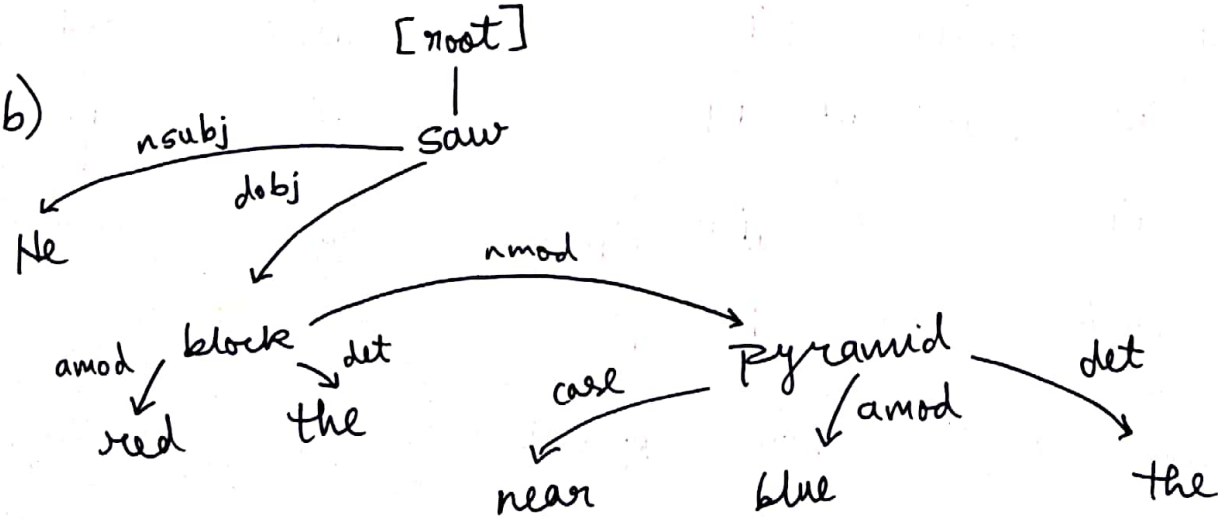


Dependency Parsing : [root]

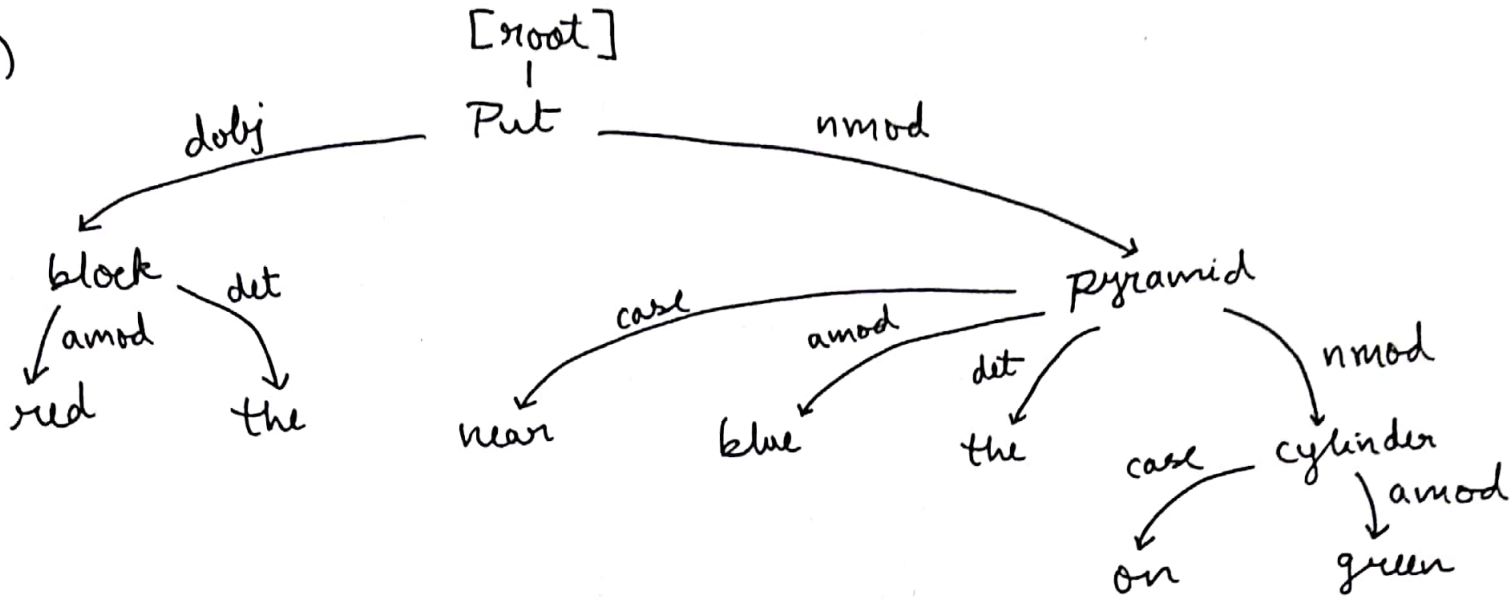
a)



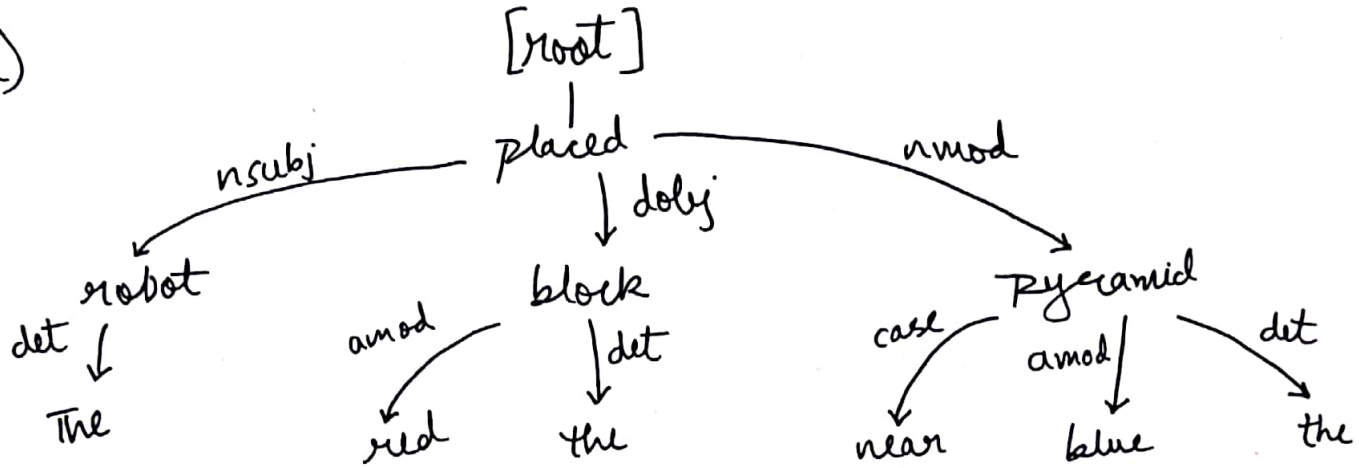
b)



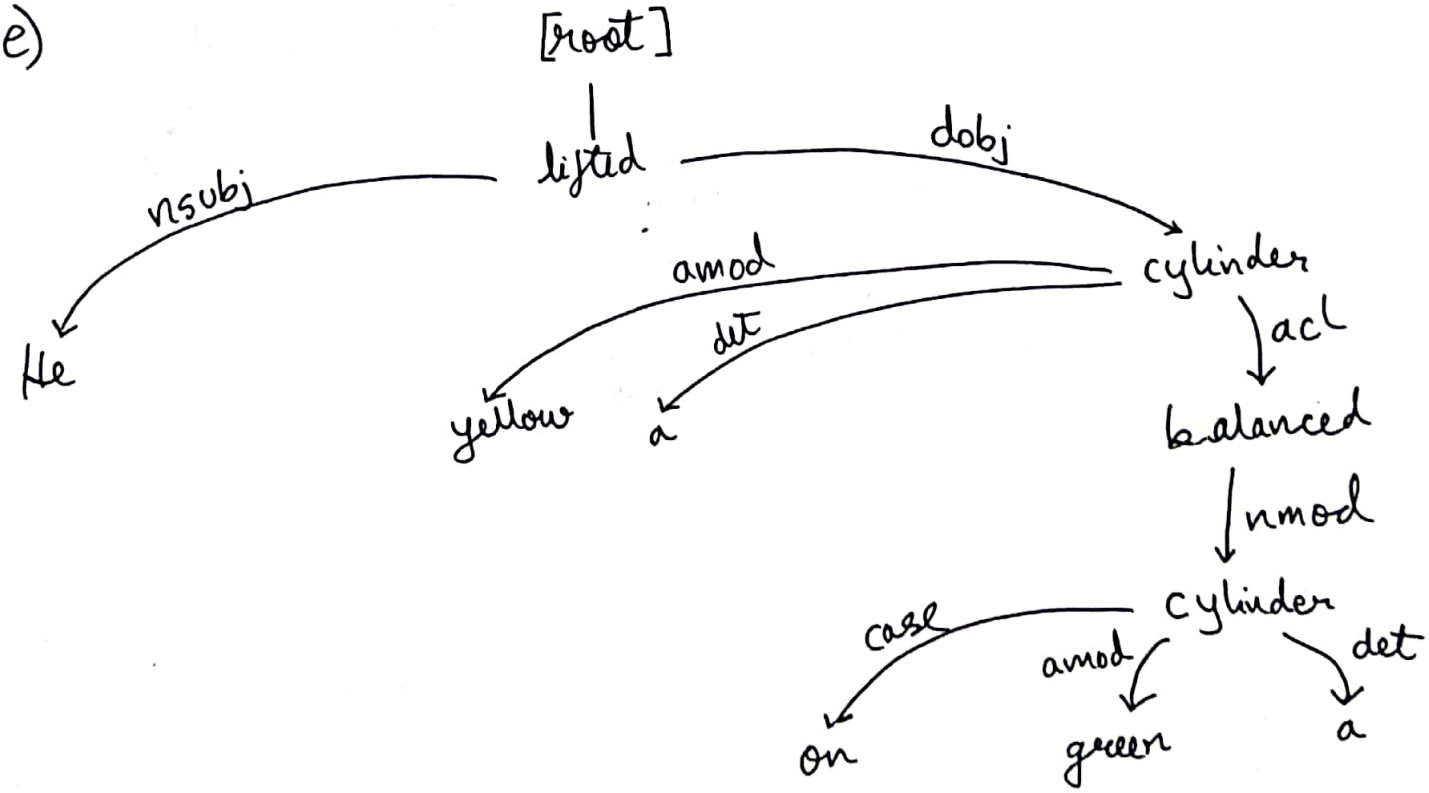
c)


[root]
Put
dobj
nmod
block
det
amod
red
the
pyramid
case
amod
det
nmod
near
blue
the
cylinder
case
amod
on
green

d)

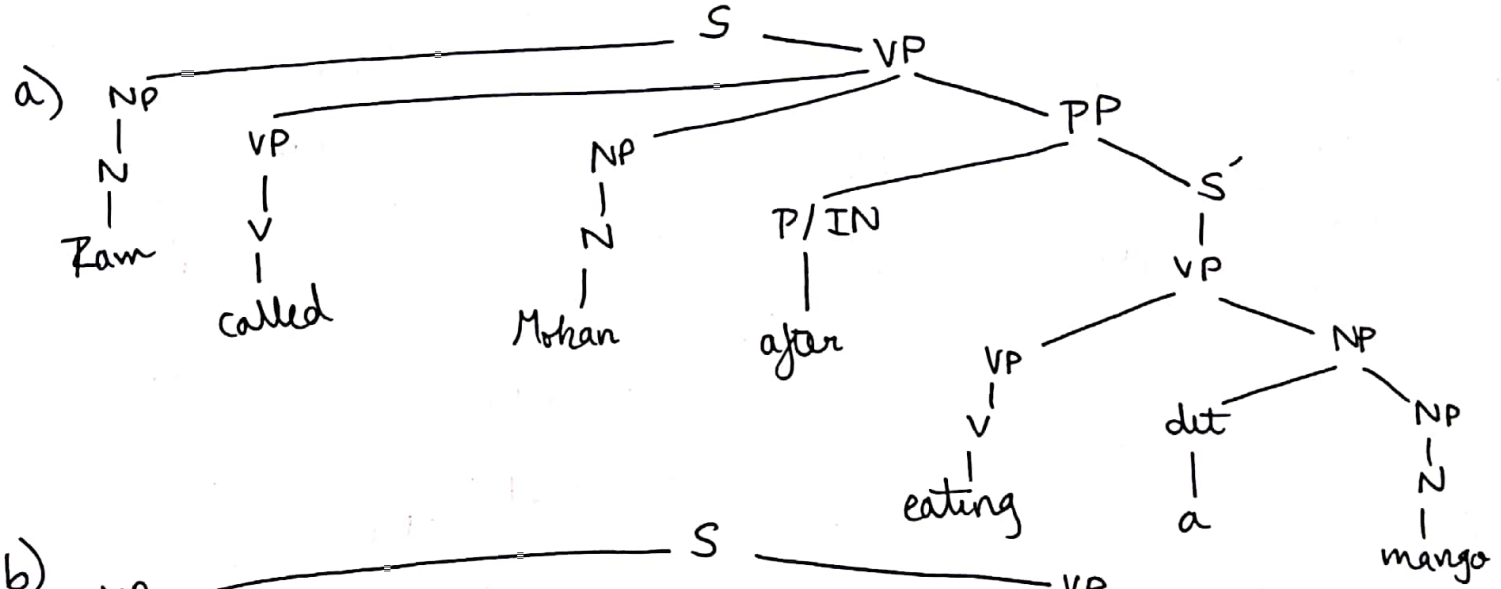

[root]
placed
nsubj
dobj
nmod
robot
det
The
block
amod
det
red
the
pyramid
case
amod
det
near
blue
the

e)

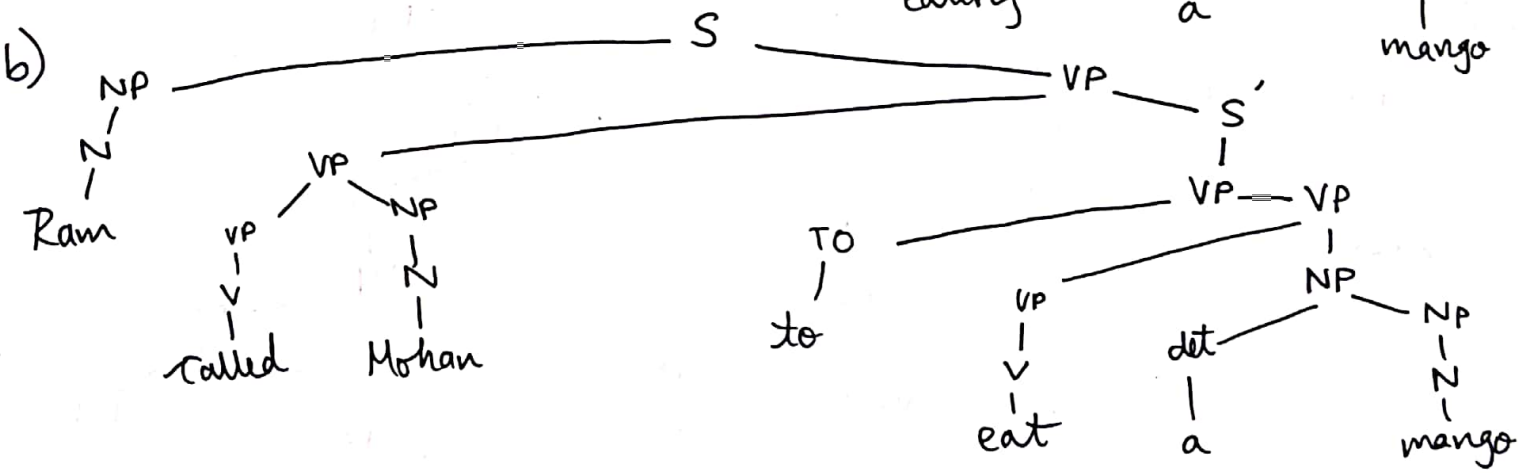

[root]
lifted
nsubj
dobj
He
cylinder
amod
det
acl
yellow
a
balanced
nmod
cylinder
case
amod
det
on
green
a

2) Phrase structure trees:

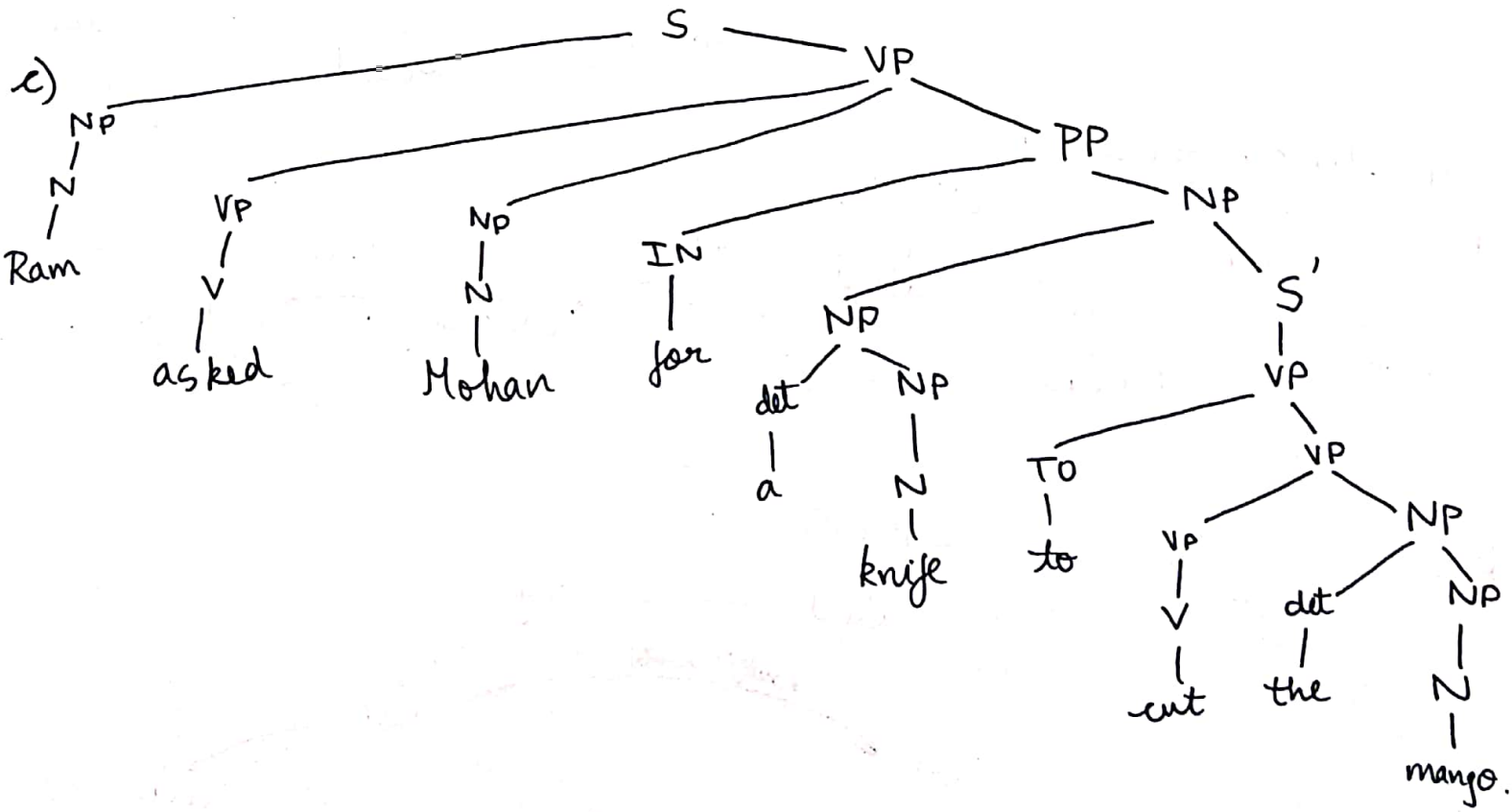
a)



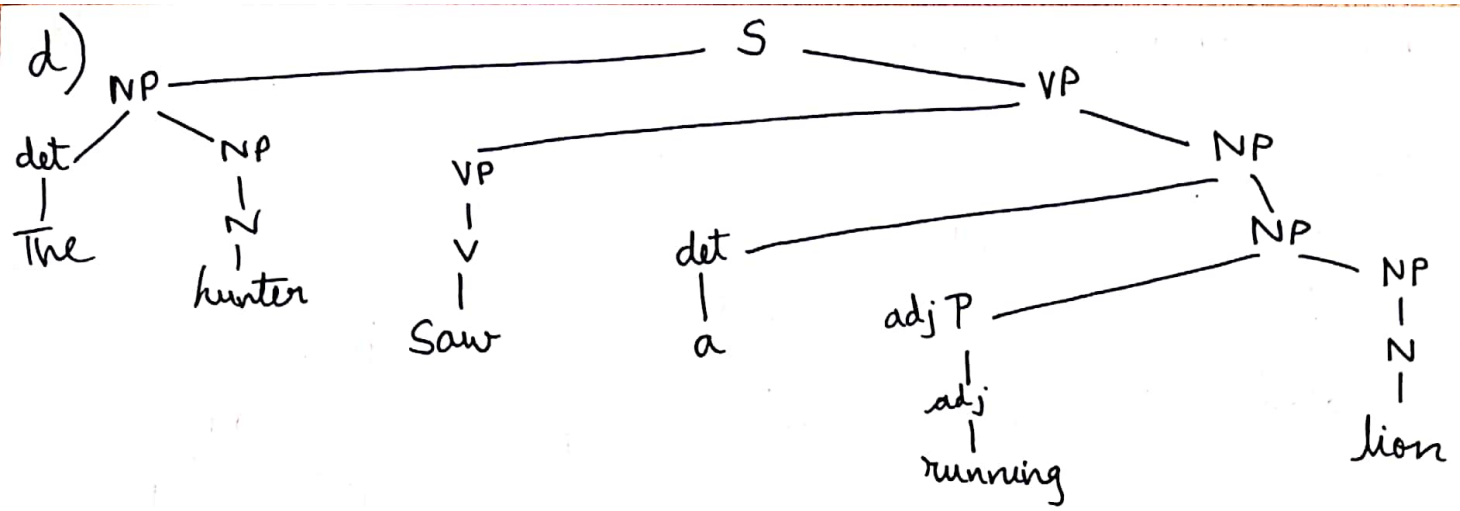
b)



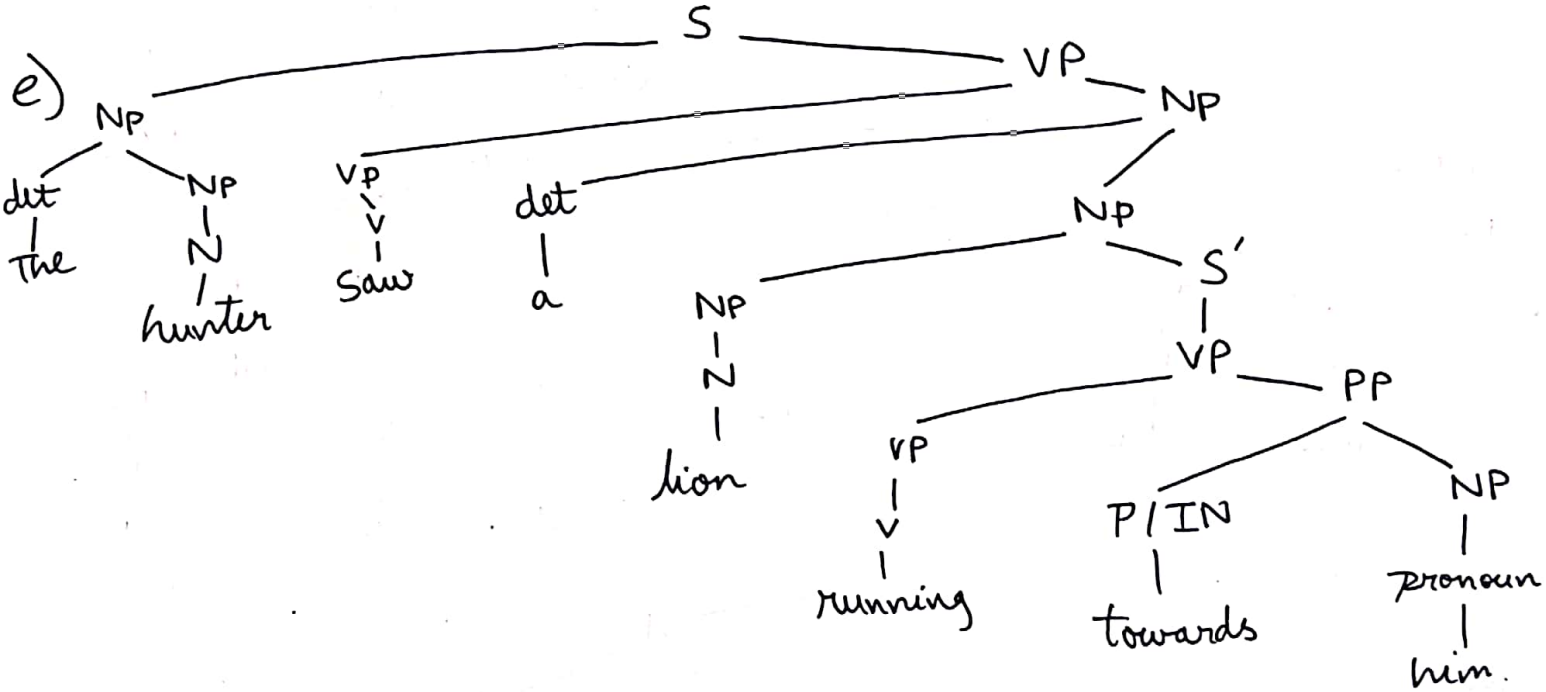
c)



d)

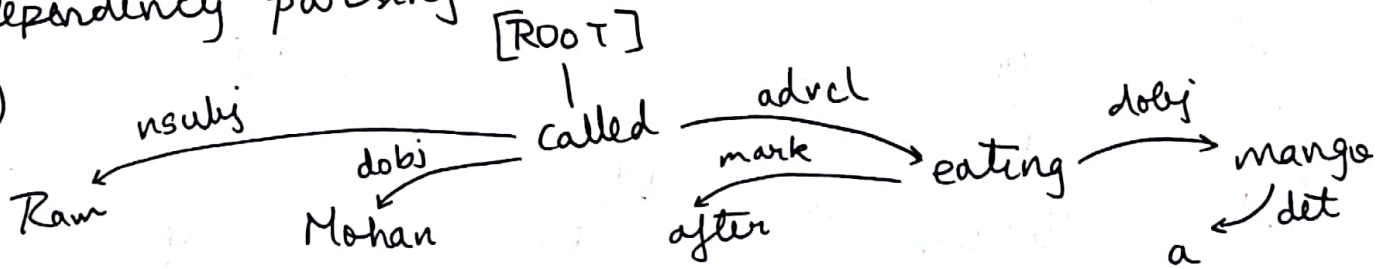


e)

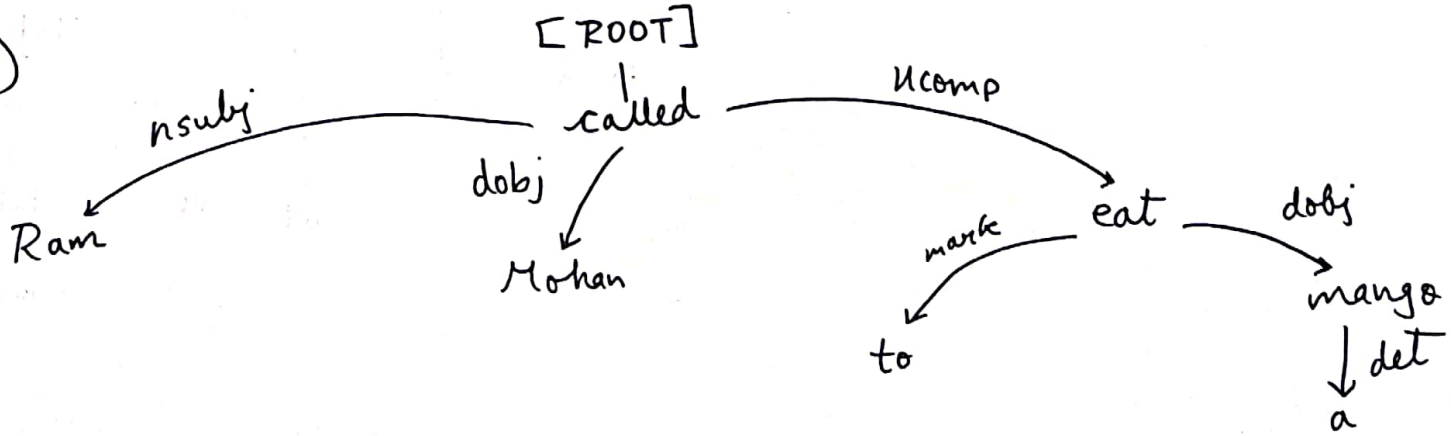


Dependency parsing:

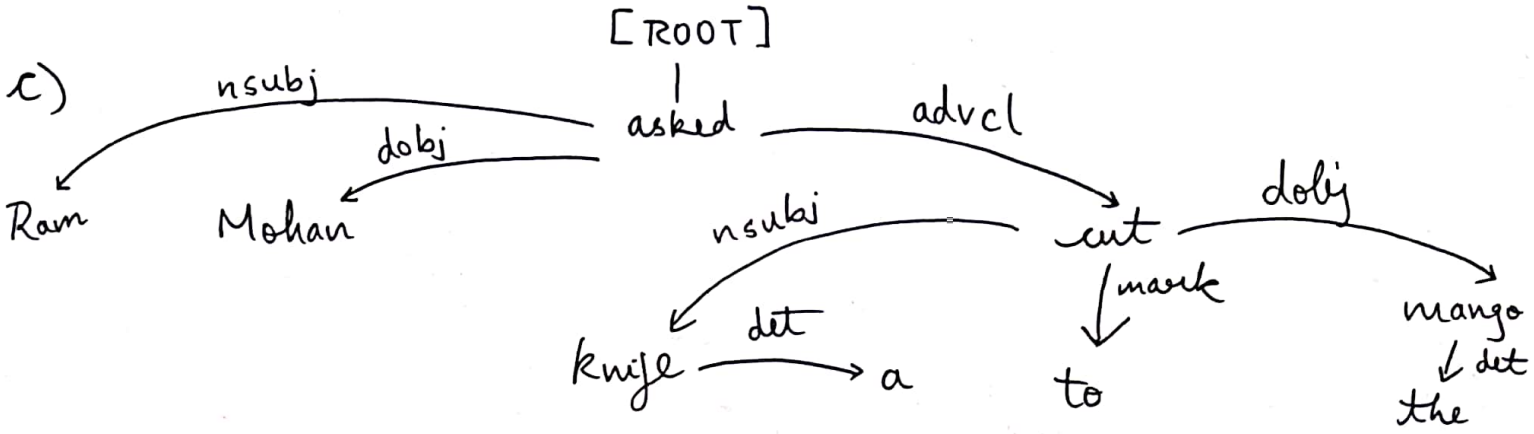
a)



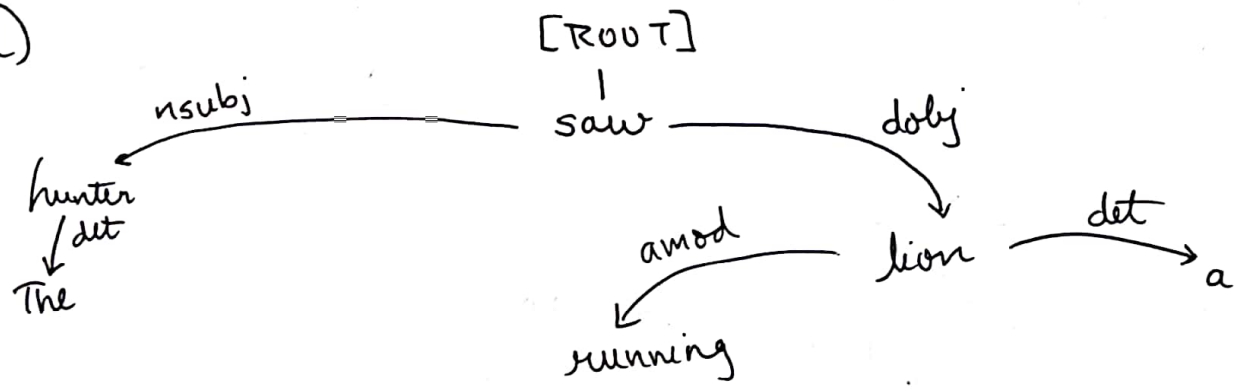
b)



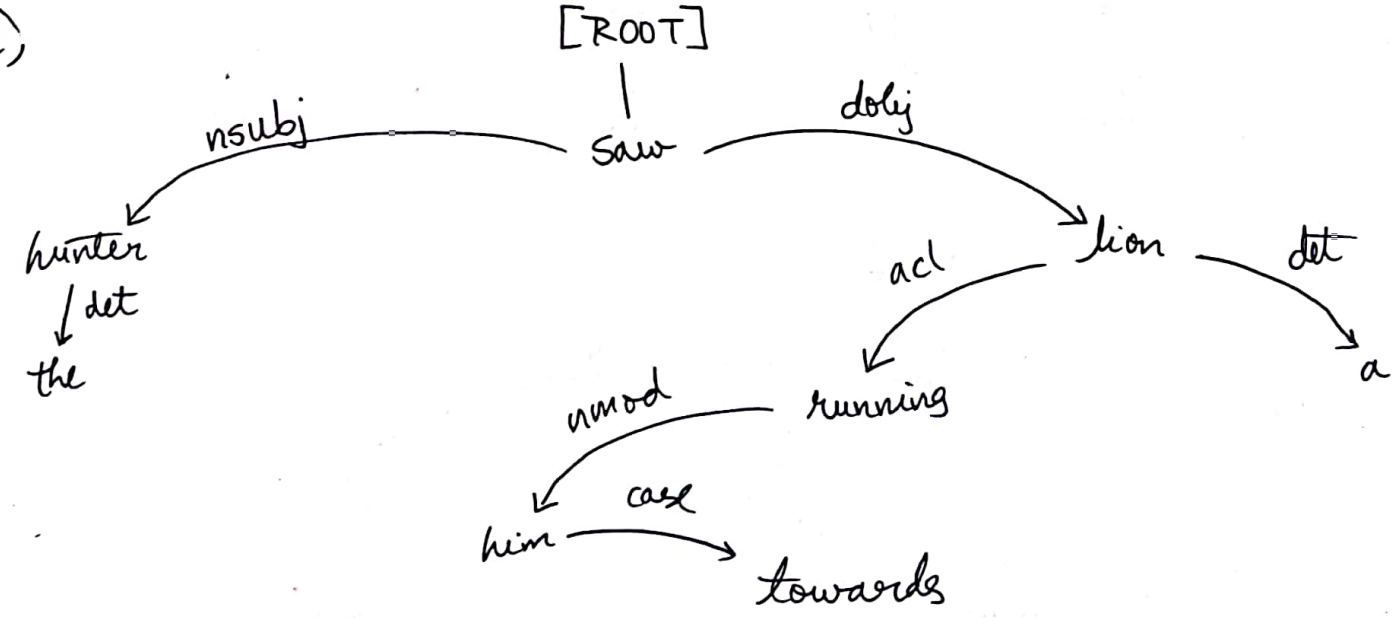
c)


[ROOT]
asked
nsubj
dobj
advcl
Ram
Mohan
cut
nsubj
dobj
mark
knife
det
a
to
mango
det
the

d)


[ROOT]
saw
nsubj
dobj
hunter
det
The
lion
amod
det
a
running

e)


[ROOT]
saw
nsubj
dobj
hunter
det
the
lion
acl
det
a
running
nmod
him
case
towards

Notation for dependency parsing →

acl : adjectival clause
advcl : adverbial clause modifier
amod : adjectival modifier
case : case marker
det : determiner
mark : marker
nmod : nominal modifier
nsubj : nominal subj
obj : object
xcomp : clausal complement
dobj : direct object

Notation for Phrase Structure Trees →

S : Sentence
NP : Noun Phrase
VP : Verb Phrase
adj P : Adjectival Phrase
adv P : Adverbial Phrase
PP : Prepositional Phrase
S' : Complement clause

det : determiner (DT)
N : noun (NN(-,S,P))
pronoun : pronoun (PRP($))
V : verb (VB[D,G,N,P,Z])
adj : adjective (JJ)
P/IN : preposition (IN)

* common POS tags in ()s

NOTE : Similar Notation was used for assignments / examinations in courses : Introduction to Linguistics & Computational Linguistics I