sentence := np vp | vp | aux np vp;

np := pronoun | proper-noun | det nominal | nominal;

nominal := noun | nominal noun | nominal pp | nominal pp pp | nominal rel-clause;

vp := verb | verb np | verb np pp | verb pp | verb inf-marker vp;

rel-clause := rel-pro vp;

pp := prep np;

1.

(a). Show the airlines with flights to Boston.

[S [VP [Verb “Show”]

[NP [Det “the”]

[Nominal [Nominal [Noun “Airlines”]]

[pp [prep “with”]

[np [nominal [noun “flights”]]

[pp [prep “to”]

[np [noun “boston”]]]]]]]]]

(b). Show the airlines that fly to Boston.

[S [VP [Verb “Show”]

[NP [Det “the”]

[Nominal [Nominal [Noun “Airlines”]]

[Rel-Clause [Rel-Pro “That”]

[VP [Verb “Fly”]

[PP [Prep “To”]

[NP [Noun “Boston”]]]]]]]]]

(c). I need to know the flight number.

[S [NP [Pronoun “I”]]

[VP [Verb “Need]

[Inf-marker “To”]

[VP [Verb “Know”]

[NP [Det “The”]

[Nominal [Nominal [Noun “Flight”]]

[Noun “Number”]]]]]]

(d). Do you prefer to go to Boston?

[S [Aux “Do”]

[NP [Pronoun “you”]]

[VP [Verb “Prefer”]

[Inf-marker “to”]

[VP [verb “go”]

[PP [Prep “to”]

[NP [Noun “Boston”]]]]]]

Ans2.

Grammar:

sg :- Singular pl:- Plural acc:- accusative nom: nominative

sentence := nomsgnp sgvp | nomplnp plvp | plvp | sgvp | sgaux nomsgnp plvp | plaux nomplnp plvp ;

accsgnp := accsgpronoun | proper-noun | det sgnominal | sgnominal;

nomsgnp := nomsgpronoun | proper-noun | det sgnominal | sgnominal;

nomplnp := nomplpronoun | proper-noun | det plnominal | plnominal;

accplnp := accplpronoun | proper-noun | det plnominal | plnominal;

sgnominal := noun | sgnominal noun | sgnominal pp | sgnominal pp pp | sgnominal sgrel-clause;

plnominal := noun | plnominal noun | plnominal pp | plnominal pp pp | plnominal plrel-clause;

sgvp := sgverb | sgverb accsgnp | sgverb accplnp | sgverb accsgnp pp | sgverb accplnp pp | sgverb inf-marker sgvp | sgverb inf-marker plvp | sgverb pp;

plvp := plverb | plverb accsgnp | plverb accplnp | plverb accsgnp pp | plverb accplnp | plverb inf-marker sgvp | plverb inf-marker plvp | plverb pp;

sgrel-clause := rel-pro sgvp;

plrel-clause := rel-pro plvp;

pp := prep accsgnp | prep accplnp;

English Lexicon

a,, cat=det;

an,, cat=det;

dinner,, cat=noun;

do,, cat=plaux;

does,, cat=sgaux;

eat,, cat=plverb;

eats,, cat=sgverb;

Fred,, cat=proper-noun;

gave,, cat=sgverb;

gave,, cat=plverb;

he,, cat=nomsgpronoun;

her,, cat=accsgpronoun;

him,, cat=accsgpronoun;

I,, cat=nomplpronoun;

it,, cat=accsgpronoun;

letter,, cat=noun;

me,, cat=accsgpronoun;

met,, cat=sgverb;

met,, cat=plverb;

she,, cat=nomsgpronoun;

the,, cat=det;

them,, cat=accpronoun;

they,, cat=nomplpronoun;

that,, cat=rel-pro;

to,, cat=inf-marker;

to,, cat=prep;

waiter,, cat=noun;

waiters,, cat=noun;

want,, cat=plverb;

wants,, cat=sgverb;

with,, cat=prep;

you,, cat=accsgpronoun;

you,, cat=accplpronoun;