Question I: Voiced or voiceless

Are the first and last sounds in each of the following words voiced or voiceless? (Be sure to think about the sounds not the letters; all vowels (at least in English) are voiced.)

۵)	though	first sound	last sound
a)	though	voiced	voiced
b)	thought		
c)	form		
d)	laugh		
e)	zoom		
f)	silk		
g)	pan		
h)	boat		
i)	choose		
j)	judge		
k)	hiccough		
l)	fan		
m)	ghetto		
n)	moo		

Question 2: Articulatory features

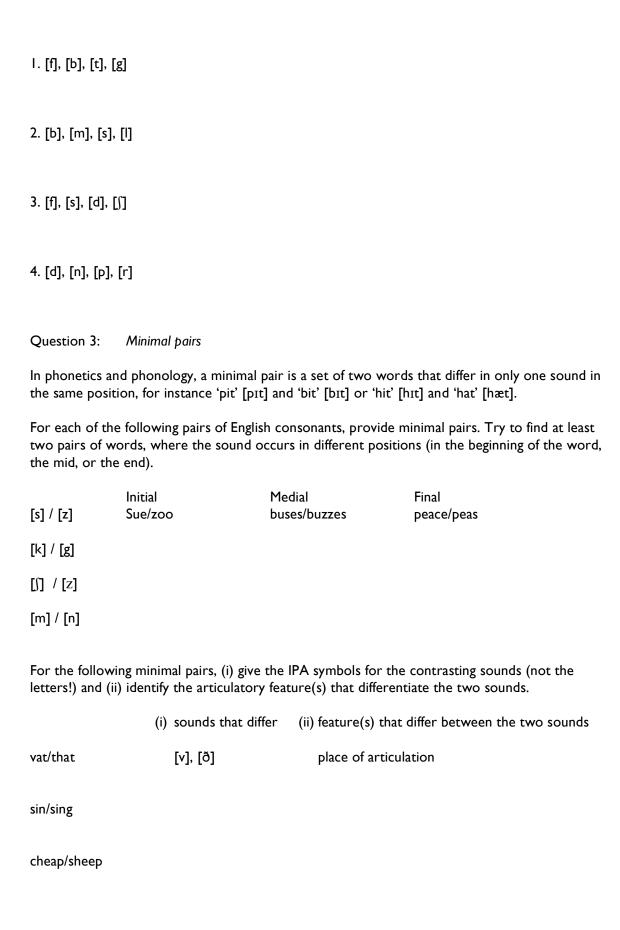
A –

We can describe speech sounds by naming their articulatory properties or features. There are three important articulatory features we can use to describe consonants:

- 1. The place of articulation (bilabial, dental, velar, etc.)
- 2. The manner of articulation (stop, fricative, nasal, etc)
- 3. The state of the glottis vibrating or not (voiced or voiceless)

For each of the following consonant sounds (as given in the IPA chart), list the specification of their articulatory features. Identify the three features above for each sound: the place, the manner, and the voicing. If you don't remember those specifications, you can find them on the consonant chart of the IPA table you got in class.

	voicing	place	manner	
I. [b]	voiced	bilabial	stop	
2. [z]				
3. [t]				
4. [n]				
5. [ŋ]				
6. [ð]				
7. [ʃ]				
8. [ʤ]				
$\mbox{\ensuremath{B}}-$ Now do the reverse – find the symbols that represent the sound that has the following features				
I. voiceless inte	rdental fricative: [θ]			
2. voiced bilabia	ıl nasal:			
3. voiceless alveolar stop:				
C – For each group sounds in the gr	of sounds below, write down two	wo articulatory features	that are shared by all the	
l. [f], [s], [∫],[θ]				
2. [t], [p], [k]				
3. [m], [ŋ], [n]				
_				
	of sounds below, circle the sou he other sounds share that the	_		



pit/pick	
rocks/box	
dig/gig	
many/penny	
Question 4:	Allomorphy

With your newly gained knowledge of phonetics, can you explain which allomorph is chosen when in the following set of data that we saw before:

impossible, inalienable, intolerant, incompatible, implausible, impeccable, immature, imbalance, incalculable, inaccessible, intemperate, ...