I (35 points)

In the following data, [l] and [r] are in complementary distribution. State the rule governing the occurrence of the two allophones. It is recommended that you first list the relevant sounds, then attempt to state the generalization that groups them together. The transcription is strict IPA. Vowels written double are long.

zrɔ̃	to be smooth	dru	to be bent
ɲra	to rage	fle	to pluck
lɔ̃	to love	glamaa	uneven
kpla	to intertwine	litsa	chameleon
mlagoo	thick	dzre	to quarrel
gblaa	wide	ɣla	to hide
lolo	to be large	xloloo	rough
wlu	to dig	tsro	bark of tree
βla	suddenly	ɸle	to buy
srɔ̃	wife	blema	formerly
lãkle	leopard	dɔlele	illness
hle	to spread out	ŋlɔ	to write
vlɔ	to go far away	jre	evil
atra	mangrove	adoglo	lizard

II (35 points)

Here the first column contains the earlier form, the second column the later form. State the sound changes necessary to derive the later stage from the earlier stage. The transcription is strict IPA.

tama	tama	father
taŋi	tai	cry
tari	tadi	younger brother
ɣita	ita	see
ɣate	ase	liver
tina	sina	mother
tiavu	siahu	sweat
mate	mase	die
ɣutu	utu	louse

pune	pune	bird
ðaŋi	lai	wind
leŋi	rei	long grass
bara	bada	big
diba	diba	right
geru	gedu	nape of neck
garo	gado	language
gwada	gwada	spear
lata	rata	milk
labia	rabia	sago
maða	mala	tongue
wabu	vabu	widow
walo	varo	vine
vui	hui	hair
vavine	hahine	woman
api	lahi	fire
au	lau	I

III (20 points)

The first column contains words in Standard French, the second column words in a variety of Canadian French. Assume that the Canadian forms are derived historically from ancestors like the Standard French forms. Describe the rule for the development of /d/ and /t/. What kind of sound change is this?

pəti	pətsi	small
due	due	gifted
baty	batsy	beaten
tyb	tsyb	tube
do	do	dowry
tip	tsip	guy
dã	dã	teeth
diʁ	dzir	say
dyʁ	dzyr	strong
tabl	tab	table
dəne	dəne	to give

filtʁ	filt	filter
tã	tã	time
teʁ	ter	earth

IV (10 points)

(a) Latin noktem ¨night¨ became Italian notto and Latin ruptum ¨broken¨ became Italian rotto. What kind of sound change is this?

(b) Some dialects of English, including my own, have the vowel ɔ in words like caught but the vowel a in words like cot. Other dialects of English lack the vowel ɔ; in these dialects cot and caught are pronounced the same. Assuming that the dialects that lack ɔ are the innovators, was this a phonetic or phonemic change?

Justify your answer.