Question A: **Welcome to Kannada**

A1.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
L	**J**	**N**	**M**	**A**	**G**	**F**	**K**	**O**	**B**	**I**	**H**	**C**	**E**	**D**

1.	Bangalore	L.	ಬೆಂಗಳೂರು	be^{n}gaḷūru
2.	Bannur	J.	ಬನ್ನೂರ್	ban$_{n}$ur
3.	Basāpur	N.	ಬಸಾಪುರ್	basāpur
4.	Lakkundi	M.	ಲಕ್ಕುಂಡಿ	lak$_{k}$u^{n}di
5.	Madikēri	A.	ಮಡಿಕೇರಿ	madikēri
6.	Malavalli	G.	ಮಳವಳ್ಳಿ	maḷavaḷ$_{l}$i
7.	Mandya	F.	ಮಂಡ್ಯ	ma^{n}da$_{i}$
8.	Mysore	K.	ಮೈಸೂರು	ma$_{i}$soru
9.	Neshārgi	O.	ನೆಶಾರಗಿ	nešāragi
10.	Puttur	B.	ಪುತ್ತೂರು	putūru
11.	Rāmanagara	I.	ರಾಮನಗರ	rāmanagara
12.	Sāligrāma	H.	ಸಾಲಿಗ್ರಾಮ	sālig$_{r}$āma
13.	Sathanur	C.	ಸಥನುರ್	sat^{h}anur
14.	Shrīmangala	E.	ಶ್ರೀಮಂಗಳ	š$_{r}$ēma^{n}gaḷa
15.	Turuvēkere	D.	ತುರುವೇಕೆರೆ	turuvēkere

A2. (a) Paris [pāris] ..... (b) London [landan] .....

(c) Budapest [budāpes$_{t}$a] ..... (d) Prague [p$_{r}$āg] .....

A3. (a) ಕನಡ or initially ಕೆ.....

(b) ಡುದ್‌ಲಿನ್ alt: Du = ಡ b = ಬ or ಬು.....

(c) ಲಿವಪುಲ್ also accept initially ಳಿ for li, ವೆ for ve, ರ್ r inserted, ಪೂ pu with long u and final l ಳ with a 6 : The actual official transliteration is ಲಿವರ್ ಪೂಲ್ [liverpūl]

<u>Explanation</u>

The writing system is an abugida: each consonant sound is represented by a given shape, onto which are grafted diacritics to represent vowels sounds (or lack of).
Only a selection of symbols are used in this problem, as tabulated below: symbols in grey shaded cells were seen only in the European capitals task. Symbols in blue shaded cells had to be derived.

	a	**ai** ◌ೈ	**ā** ◌ಾ	**e** ◌ೆ	**ē** ◌ೇ	**i** ◌ಿ	**u** ◌ು	**ū** ◌ೂ	**terminal** ◌್
p			ಪಾ	ಪೆ			ಪು	ಪೂ	
b	ಬ			ಬೆ			ಬು		ಬ್
t							ತು	ತೂ	
th	ಥ								
d	ಡ	ಡ್ಯ	ಡಾ			ಡಿ	ಡು		
k kk	ಕ			ಕೆ	ಕೇ		ಕು ಕ್ಕು		
g gr	ಗ		ಗಾ ಗ್ರಾ			ಗಿ			ಗ್
m	ಮ	ಮೈ							
n nn	ನ			ನೆ			ನು ನ್ನು		ನ್
l	ಲ					ಲಿ			ಲ್
ḷ ḷḷ	ಳ					ಳಿ ಳ್ಳಿ		ಳೂ	ಳ್
r	ರ		ರಾ	ರೆ		ರಿ	ರು		ರ್
v	ವ			ವೆ	ವೇ				
s st	ಸ		ಸಾ					ಸೂ	ಸ್ ಸ್ಟ
š			ಶಾ			ಶಿ			
šr					ಶ್ರೀ				

The symbols indicating a doubled and retroflex consonant come after the vowel, but are shown in the transliteration as a subscript before the vowel. Post-vowel *n* (as opposed to word-final *n*) is shown with a superscript: the diacritic ◌ಂ can be applied elsewhere. From the table it can be seen that the add-on symbol representing the vowel is quite systematic. In this way it was reasonable to ask students to deduce the character for *ka* (though *ke* was acceptable) *da*, terminal *b*, *li*, terminal *l*.

Question B: **Maths in Bolivia**

B1. (a) 7 x 7 = 49..... (b) 1 x 6 = 6 ..... (c) 14 = 6 + 8 .....

(d) 3 x 7 = 21..... (e) 17 + 42 = 59 ..... (f) 5 x 8 = 40.....

(g) 38 = 26 + 12 ..... (h) 9 x 9 = 81..... (i) 20 x 20 = 400.....

(j) 67 + 42 = 109... (k) 71 x 2 = 142 .....

B2

(a) tunka suxtani kuti pusixa suxta tunk pusini kikipa

(b) kimsaqallq tunk paqallqunimpi tunka llätunkanimpixa pataka suxtani kikipa

(c) kimsa pataka llätunka tunkxa pataka llätunka tunk phisqani kuti payani kikipa

Explanation

Order of HTU same as English: H *pataca* T *tunc* U. U if in a number > 10 adds *-ni.* Teens (including 10 on its own) are formed with *tunca*
Numerals are as follows:
1 – *maya*, 2 – *pä/paya*(with *-ni*), 3 – *kimsa*, 4 – *pusi*, 5 – *phisqa*, 6 – *suxta*, 7 – *paqallku*, 8 – *kimsaqallku* , 9 – *llätunka*.
10 – *tunka*, 20 *pä tunk*, 30 – *kimsa tunk* etc.
100 – *pataca*
Qallku is presumably another name for 5, since 7 = 2.5, 8 = 3.5. *-qallku* drops the final *-u* when forming a T. 9 = *llä*-10 ('nearly 10'?).

Possible solution method (start)
(b) tells us that *maya* is 1 (1 x *n*= *n*)
Assuming numerals end in U, (h), which is a square (*n* x *n*), is 81 or 121. Assuming it's 81, *llätunca* is 9.
(a) Is also a square, ending in 9, so *paqallku* must be 7
Etc.

Question C: **Maonan-imals**

C1.

1	2	3	4	5	6	7	8	9	10
F	**H**	**Q**	**R**	**J**	**D**	**A**	**E**	**M**	**O**
11	12	13	14	15	16	17	18	19	
I	**K**	**S**	**P**	**G**	**B**	**C**	**N**	**L**	

C2. (a) animals..... (b) bird's nest ..... (c) spray a lot .....(d) good pig .....

C3. (a) *dat⁸ da:i²* ..... (b) *kjɔŋ⁵ dɔ² ʔɛp⁷* . (c) *dɔ² ka:i⁵ dak⁸* .....(d) *guŋ⁶ mu⁵*.....

C4. grasshopper (that) drinks water.....

Solution:

1	da:i²na⁴	good-eat	F	delicious
2	dat⁸na⁴	thing-eat	H	food
3	dat⁸nam³	thing-water	Q	water
4	dat⁸put⁷nam³	thing-spray-water	R	water sprayer
5	dɔ²gjuŋ²	animal-grasshopper	J	grasshopper
6	dɔ²ka:i⁵	animal-chicken	D	chicken

7	dɔ²vɛ⁴kɔŋ¹	animal-make-work	A	beast of burden
8	guŋ⁶dza:n⁵	nest-silkworm	E	cocoon
9	hi:u³gwi²	tooth-buffalo	M	molar
10	kjɔŋ⁵dza:n⁵	pl-silkworm	O	silkworms
11	kjɔŋ⁵hi:u³da:i²	pl-tooth-good	I	good teeth
12	kjɔŋ⁵ka:i⁵ni⁴	pl-chicken-mother	K	hens
13	kɔŋ¹kɔk⁸	work-much	S	work hard
14	mu⁵ni⁴	pig-mother	P	sow
15	na⁴nɔk⁸	eat-much	G	eat a lot
16	ni⁴gwi²dak⁸	big-buffalo-male	B	big bull
17	ni⁴mu⁵	big-pig	C	big pig
18	nɔk⁸ka:i⁵	wild:bird-chicken	N	pheasant
19	nɔk⁸ʔɛp⁷	wild:bird-duck	L	mallard

Maonan uses classifiers heavily.

Classifier	Notes
ni⁴	'large animal'. Comes from ni⁴ 'mother'
dat⁸	'thing, object'
dɔ²	'animal'. Also used for some birds
nɔk⁸	'(wild) bird'. Used for most birds

The morpheme *ni⁴* means 'mother' as a standalone and 'female' when used as a suffix. When used as a prefix, *ni⁴* loses its gender specificity to just mean 'large'. This also occurs with *dak⁸*, although it is not shown in this problem.
The morpheme meaning 'a lot' is **C***ɔk⁸* where **C** duplicates the initial consonant of the word to which it is added.

Question D: **Look who's talking**

D1. (a) Pi ʔac ñeñok ʔa:cim.

(b) No pi cickpan g cecoj.

(c) No hihim g ʔalal.

(d) Cickpan ʔac ʔa:cim.

(e) Ñeok ʔo hegai ʔali.

D2. (a) The children are working. .....

(b) Are the men walking? .....

(c) That woman is not speaking. .....

D3. The mistake is in sentence … (b) ….. where the word …him… should be …hihim ….

Summary of grammar rules:

Word order is as follows (brackets indicate optionality):
(Question) (Negative) (Declarative) Verb (Declarative) Article Subject
Question marker is *nañ* for 1st person singular, *no* for 3rd person plural. (Further generalisation may be possible, eg number or person, but we cannot tell from the data)
Negative marker is *pi*
The declarative marker appears only in statements, not questions, agreeing with the subject: *ʔañ* ('I'), *ʔac* ('we') otherwise *ʔo* if the subject is a noun. It appears before the verb in a negative statement, after the verb in a positive statement.
Verbs have a reduplicative form* when the subject is plural: *ñeok/ñeñok* ('speak'), *him/hihim* ('walk'), *cikpan/cickpan* ('work')
The Article is *g* ('the') or *hegai* ('that'), not needed with pronouns.
Subject nouns, which, like verbs, have a reduplicative form in plural*, are *ceoj* / *cecoj* ('man'/'men'), *ʔali* / *ʔalal* ('child'/'children'), *ʔuwĭ* ('woman'), pronouns *ʔa:ñi* ('I'), *ʔa:cim* ('we')
* The data do not permit any generalisation about how this partial reduplication works.
Regarding D3: The verb and subject must agree. Note that the alternative possible correction, making the subject singular, cannot be accepted, since we have no evidence of what the negative marker should be with a 3rd person singular subject.

Question E: **You, me and isiXhosa**

E1. (a) Do they love you (pl)?.....

(b) You (pl) can teach them.....

(c) They do not teach German.....

(d) Do you (sg) not still see me? [Don't you (sg) still see me?].....

(e) We don't learn French yet.....

(f) They can show us. .....

E2. (a) *Uyabafundisa*.....

(b) *Niyathetha* .....

(c) *Ndinganibona?*.....

(d) *Ndisafunda* .....

(e) *Akungaboni abantu*.....

(f) *Abafundi isiNgesi* .....

E3. Explain the rules of isiXhosa grammar as seen here. Continue on the back page if necessary.

Word order is Verb – optional Object. Subject is incorporated as a verb prefix.
Language names are preceded by *isi-*. The internal structure of the verb is as follows:

POLARITY	SUBJECT	ASPECT	OBJECT	ROOT	POLARITY
+ve = Ø –ve = *a*	1s = *ndi* 2s = *(k)u** 1p = *si* 2p = *ni* 3p = *ba*	'can' = *nga* 'still' = *sa* 'yet' = *ka* else = *ya***	Same as subject Ø if obj is noun	'love' = *thand* 'see' = *bon* 'learn' = *fund* 'teach' = *fundis* 'speak' = *theth*	+ve = *a* –ve = *i*

* *ku* is used after *a-*; *u* elsewhere. ***ya* appears if no other aspect morpheme is used, and the object is not expressed by a second word.
Questions are not marked morphologically.

Vocabulary as follows:
thand 'love', *bon* 'see', *theth* 'speak', *fund* 'learn'
fundis 'teach' (= cause to learn) from which infer *bonis* 'show' in E1f

isiJamani 'German' and *isiFrentshi* 'French' have to be guessed.