

**PART A: Very short answer questions** (write T for True and F for False)  
*Please answer in the question paper (QP)*

20 x 1 = 20

1. Voiced sounds are produced with the vocal cords in open position. [   ]
2. The word 'little' has two syllables. [   ]
3. The vowel /i/ is produced higher than the vowel /u/. [   ]
4. The symbol used to write in a language has one to one relationship with the speech sounds. [   ]
5. The IPA chart is organized column wise from left to right based on the POA. [   ]
6. The click sounds are produced using velaric ingressive airstream mechanism. [   ]
7. In a syllable, an onset is must, but a nucleus is optional. [   ]
8. In an IPA chart for vowels, in the same height and backness, the sound on the left is rounded. [   ]
9. In case of a labiodental sound, teeth are the passive articulator. [   ]
10. Speech also has information about the person's identity. [   ]
11. Sonorant sounds are more aperiodic than the obstruent sounds. [   ]
12. IPA alphabets have one to one correspondence with speech sounds. [   ]
13. In case of stop sounds, the primary function of VOT is to determine the place of articulation. [   ]
14. In a language, two vowels can be different phonemes depending on their duration. [   ]
15. In a language onsets and nucleus are combined into a rime. [   ]
16. Glottalic ingressive sounds are also called ejectives. [   ]
17. A complex onset is an onset containing more than one consonant. [   ]
18. Among stop and approximant consonants, stops are more sonorous. [   ]
19. Amount of constriction is more in consonants than in vowels. [   ]
20. Articulatory phonetics deals with the physical representation of the speech sounds. [   ]

**PART B: Short answer questions** (maximum 10 sentences)

5 x 5 = 25

21. Explain the source filter theory of speech.
22. Give evidence of considering rime as a single unit?
23. What is f0? What information does f0 carry in speech?
24. Why the articulatory features of consonants different from that of the vowels?
25. What are the different airstream mechanisms? Explain with examples.

# PART C: Data/ problems

26. Draw the complete syllable structure tree for 'script'. (each wrong node results in -0.5 marks) 25
27. Match the vowels /i/, /e/, /a/, /u/, /o/ with their formants in the following table. Answer in the QP. 5

Formants in Hz		Vowels
f1	f2	
290	620	
425	650	
280	2400	
420	2350	
950	1650	

28. Look at the following words where [t] and [tʃ] sounds appear in Japanese:

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- |             |        |              |       |
|-------------|--------|--------------|-------|
| a. [tatami] | mat    | f. [koto]    | fact  |
| b. [tegami] | letter | g. [utʃi]    | house |
| c. [tʃitʃi] | father | h. [te]      | hand  |
| d. [ʃita]   | under  | i. [degutʃi] | exit  |
| e. [tʃizu]  | map    |              |       |

Now answer the following questions:

- Are [t] and [tʃ] in complementary or contrastive distribution?
  - Are they allophones of the same phoneme or different phonemes?
  - Between [t] and [tʃ] which one is a phoneme? Give reasons.
29. Write the correct IPA symbols for the following descriptions. Answer in the question paper. 5

Description	IPA
Voiceless, bilabial, aspirated, stop	
Voiced, velar, stop	
High/Close, front, rounded vowel	
Voiceless, labiodental, fricative	
Mid, central, unrounded vowel	