1 Articulatory Phonetics (20%)

1. Describe the articulatory process for pronouncing /θ/ in English. Pay attention to describe the air-stream mechanism, the positions of relevant articulators and the movements of the articulators in order.

   Answer: /θ/ is a voiceless dental fricative. The vocal cords are lax and do not vibrate when the air passes through the glottis. The velum is raised so that the air only passes through the oral cavity. The tongue tip is placed between the teeth with a near complete closure for the vocal tract, which only allows air to escape through tiny opening around the teeth area, producing noise.

   是清的齿擦音。声带是松弛，当空气通过声门时不会振动。软颚抬高，所以空气只通过口腔。舌尖放置在牙齿之间，发声道空间几乎完全闭合，空气通过牙齿区域周围的微小开口逸出，产生噪音。

2 Phonetic Features (30%)

Give the English speech sound symbol that corresponds to the following articulatory descriptions:

1. voiceless bilabial stop /p/
2. voiced interdental fricative /ð/
3. voiced alveolar stop /d/
4. voiceless alveopalatal affricate /tʃ/
5. lax high front vowel /ɪ/
6. tense high back vowel /u/
7. voiceless alveolar fricative /s/
8. lax low front vowel /æ/
9. (lateral) liquid /l/
10. voiceless velar stop /k/

3 Transcriptions of English(40%)

Give the broad transcriptions of the following English words according to your own pronunciation.

1. through /θɹu/
2. though /ðoʊ/ or /ðəʊ/
3. rough /ɹʌf/
4. usually /ˈjuʒuəli/
5. shine /ʃaɪn/
6. hang /hæŋ/ or /heŋ/
7. draft /dræft/
8. try /tʃɹaɪ/
9. hand /hænd/
10. which /wɪtʃ/
11. bought /bɔt/ or /bɑt/
12. hand /hænd/
13. edit /ˈɛdɪt/
14. tasks /tæsks/
15. chat /tʃæt/

4 Transcription of Chinese

1. 学以致用 /ɕyɛ˧˥ ji˨˩˦ ʈʂɨ˥˩ jʊŋ˥˩ /
2. 热情 /ʐɤ˥˩ tɕʰiŋ˧˥/
3. 包子 /paʊ˥ tsɨ˨˩˦/
4. 遵循 /tsuən˥ ɕyn˧˥/
5. 俄罗斯 /ɤ˧˥ luo˧˥ sɨ˥/
6. 爱尔兰 /aɪ˥˩ ɚ˨˩˦ lan˧˥/
7. 休闲 /ɕiou˥ ɕiæn˧˥/
8. 吃惊 /ʈʂʰɨ˥ tɕiŋ˥/
9. 机会 /tɕi˥ xueɪ˥˩/
10. 希望 /ɕi˥ wɑŋ˥˩/
11. 爬山 /pʰa˧˥ ʂan˥/
12. 炯炯有神 /tɕyŋ˧˥ tɕyŋ˧˥ jəʊ˨˩˦ ʂən˧˥/
13. 建设 /tɕiæn˥˩ ʂɤ˥˩/
14. 月饼 /jyɛ˥˩ piŋ˨˩˦/
15. 夜市 /jɛ˥˩ ʂɨ˥˩/