

Sound produce with obstruction from vocal cards is called consonants. These are 24 in number & consonants resembles the sounds of Alphabets rest of them are bit different.

## Chapter 6

Phonetics

Phone

tics

Sounds / Speech

The scientific or systematic study

# PHONETICS

## DEFINITION OF PHONETICS

Phonetics is the scientific study of the production, transmission and reception of speech sounds. It studies the medium of spoken language. Touching upon physiology and physics, phonetics is now a pure science that studies speech processes, including the anatomy, neurology and pathology of speech, the articulation, description, classification, production and perception of speech sounds. It looks at speech from three distinct but interdependent viewpoints: it studies the speech organs, which produce sounds of language; it studies waves, the physical way in which sounds are transmitted through the air from one person to another, and it studies the way in which human beings perceive sounds through the medium of the ear.

Phonetics studies the defining characteristics of all human vocal noise, and concentrates its attention on those sounds which occur in the languages of the world. In other words, phoneticians try to study how the various organs of speech—the lungs, the larynx, the soft palate, the tongue and the lip—function in the production of

speech. They also attempt to offer articulatory descriptions of various sounds by describing the air-stream-mechanism and the phonatory and articulatory processes involved. Acoustic phoneticians examine the physical nature of sounds and analyse the speech wave with the help of instruments.

## Branches of Phonetics

The study of phonetics can be divided into three main branches, (ACOUSTIC,) (AUDITORY) and (ARTICULATORY).

## ✓ Acoustic Phonetics (2)

( Acoustic phonetics is the study of the physical properties of speech sounds such as frequency and amplitude in their transmission. Acoustic phoneticians analyse the speech waves with the help of instruments; they attempt to describe the physical properties of the stream of sound that issues forth from the mouth of a speaker.

It is in the field of acoustic phonetics that the most striking developments have taken place since the Second World War. Complex sound waves produced in speech can be analysed into their component frequencies and relative amplitudes. Considerable progress has also been made in speech-synthesis. Acoustic analysis has confirmed (if confirmation was needed) that speech is not made up of a sequence of discrete sounds. The articulatory features of rounding of voice, of nasality, of obstruction and of friction can also be identified acoustically. Acoustic phonetics has achieved a good deal of success in matters of vowels, but regarding consonants it has not reached final conclusions.

## Auditory Phonetics (3)

(Auditory phonetics is the study of hearing and the perception of speech sounds. It studies different auditory impressions of quality, pitch and loudness of sounds. The auditory classification of speech-sounds has not yet been carried to a decisive phase. At the present time,



phonetics can be regarded as being made up of two main branches: articulatory and acoustic phonetics.

In a book like this, it would not be of any significant use to go into the details of acoustic and auditory phonetics. The results of acoustic and auditory phonetics need very minute observations and great scientific and technical expertise, and are several times puzzling. These branches use instruments which cannot be used easily outside a laboratory, and cannot be transported successfully from one place to another. Hence the easiest approach to observations about speech is the traditional and most common approach of articulatory phonetics and we shall be dealing with it in great detail.

### (1) **Articulatory Phonetics** *basic and important branch.*

Articulatory phonetics recognizes that speech is produced by some kind of sound-making apparatus inside the human body and that specific sounds may be related to specific movement of the apparatus. Hence it is the study of movement of the speech organs in the articulation of speech. Speech is produced by the movements of the organs of speech—lungs, larynx, soft palate, tongue teeth and lips. The knowledge of the organs of speech, their relation to each other, and the way in which they are used in speaking provides a sound basis for the classification of sounds of human languages.

## ✓ **THE STUDY OF PHONETICS**

Phonetics is the scientific study of the speech sounds of a language. It deals with the production, transmission and reception of speech.

A knowledge of phonetics is a must for a teacher of English. This knowledge enables him:

- (1) to acquire a correct pronunciation.
- (2) to give a true description of the sounds of English and how they are made.
- (3) to point out the mistakes in the student's pronunciation and help him learn the correct form.

(4) to differentiate sounds of English from those of the mother tongue.

### ✓ **Phonetic Transcription and its Value**

English is not a phonetic language, *i.e.* the sound of a word is not the combination of the various sounds of the letters constituting the word. It has been well-said the spelling of a word in English is not a true guide to its pronunciation.

The difficulty with English is that some letters stand for more than one sound. The letter *a*, for example, has different sounds in *able*, *about*, *at*, *after*, *want*, *all*, *any*. Secondly, different combinations of letters yield the same sound. For example, we have the same vowel sound in *sea*, *key*, *feel*, *field*, *seize*, *people*. Thirdly, there are certain letters which are silent in certain words as *b* in *dumb*, *d* in *debt*, *l* in *calf* etc.

As the spelling of a word in English is not the true guide to its pronunciation, we need the help of other symbols to indicate pronunciation. Such symbols are called phonetic symbols, each symbol standing for one sound only.

The value of phonetic symbols or phonetic transcription is that it enables us to read accurately the pronunciation of a word in the dictionary such as the *Oxford Advanced Learner's Dictionary of English* by A. S. Hornby and others and *Everyman's English Pronouncing Dictionary* by Daniel Jones.

### **Received Pronunciation (RP)**

While learning a language, it is necessary to know the correct pronunciation of words used in that language. But as pronunciation varies from region to region, it is difficult to decide which variety of the language is correct one. So, one may learn that variety of the language which has the widest acceptability. In the case of English the Southern British pronunciation has the widest acceptability and it is the speech of the higher educated. This variety of English is also known as Received Pronunciation or; for short, RP, as it is received well all



over England. It is also the language used in BBC news broadcasts.

### International Phonetic Alphabet (IPA)

In English correspondence between sounds of words and their spellings is a rare phenomenon. The same letter sounds differently at different places. The reason is that the spelling system became fixed in the sixteenth century, although pronunciation has been changing since then. So, while learning the English sounds it is absolutely necessary to use a script such as the International Phonetic Alphabet, in which each symbol represents one and only one sound. The following table explains the symbols used for English sounds.

#### English Pure Vowels.

*Monophthongs*

Number	Symbol	Ordinary Spelling	Phonetic Transcription
1	/i:/	tree	tri:
2	/i/	hit	hit
3	/e/	set	set
4	/æ/	bat	baet
5	/a:/	harm	ha:m
6	/ɒ/	pot	pɒt
7	/ɔ:/	all	ɔ:l
8	/ʊ/	put	put
9	/u:/	mood	mu:d
10	/ʌ/	hut	hʌt
11	/ə:/	girl	gə:l
12	/ə/	admit	əd/mit

#### English Diphthongs

Number	Symbol	Ordinary Spelling	Phonetic Transcription
13	/ei/	say	sei
14	/ou/	no	nou
15	/ai/	fly	flai
16	/au/	how	hau
17	/ɔi/	toy	tɔi

Number	Symbol	Ordinary Spelling	Phonetic Transcription
18	/iə/	near	niə
19	/ɛə/	fair	fɛə
20	/uə/	poor	puə

### English Consonants

Number	Symbol	Ordinary Spelling	Phonetic Transcription
1	p	pen	pen
2	b	bet	bet
3	t	tea	ti:
4	d	dress	dres
5	k	kind	kaind
6	g	good	gud
7	f	fine	fain
8	v	very	veri
9	θ	thin	θin
10	ð	this	ðis
11	s	see	si:
12	z	zeal	zi:l
13	ʃ	ship	ʃip
14	ʒ	leisure	leʒ
15	tʃ	chit	tʃit
16	dʒ	jem	dʒem
17	m	miss	mis
18	n	nine	nain
19	ŋ	song	sɒŋ
20	l	like	laik
21	r	red	red
22	h	heat	hi:t
23	w	wide	waid
24	j	yes	jes

**Note:** In Received Pronunciation (R.P.), 'r' is not pronounced when it is in the final position or is followed by a consonant. Its sound, therefore, is not given in phonetic transcription.

## The Organs of Speech

Ans. Figure 1 shows the various vocal organs.

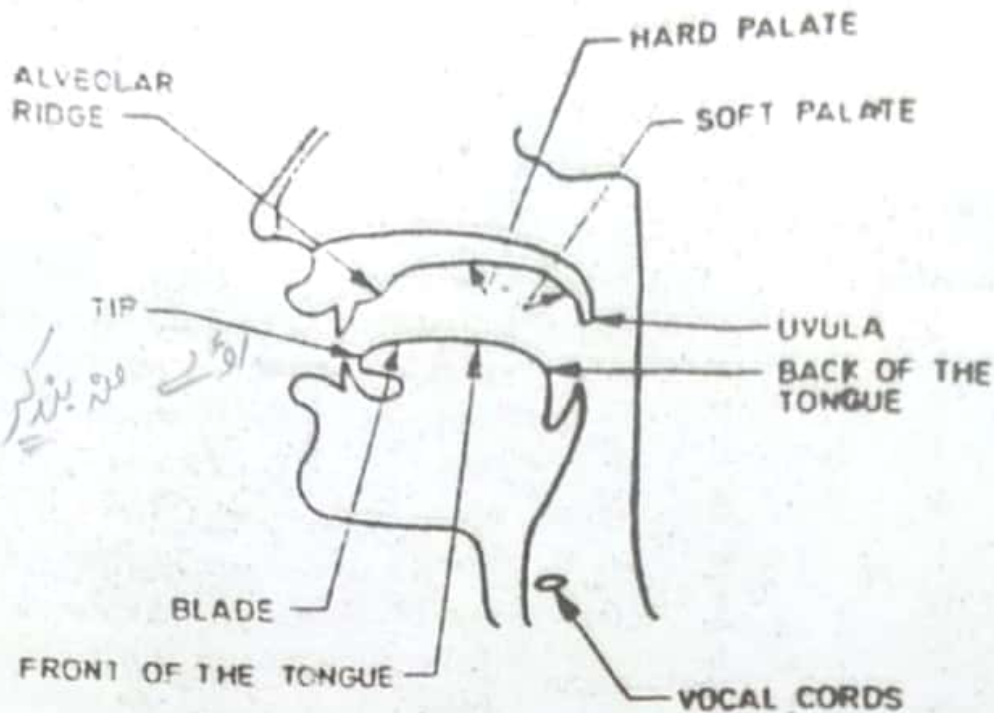


Fig. 1. The Organs of Speech

The energy for the production of speech is provided by the air-stream coming out of the lungs.

### The Vocal Cords

The air released by the lungs comes up through the windpipe and arrives first at the <sup>voice box</sup> larynx. The larynx contains the vocal cords which are like small lips projecting from the sides of the larynx and connected with muscles so that they can be brought together and placed edge to edge in the middle of the air passage (see Figure 3) or be drawn apart leaving a wide opening between them (see Figure 2). This opening is called the glottis. 121

When the vocal cords are brought near together and air is forced between them, they vibrate producing a musical sound. The sounds produced with the vocal cords vibrating are called voiced sounds and those produced with the vocal cords not vibrating are called voiceless sounds.



Immediately above the larynx is a space behind the tongue and reaching up towards the nasal cavity. This space is called the pharynx. At the base of the tongue and projecting into the pharynx is the epiglottis, a small flap which serves to prevent food from falling into the larynx.

### The Palate

The roof of the mouth is divided into three parts: the alveolar or teeth ridge just behind the upper teeth; the hard palate; and the soft palate or the velum. The difference in texture between the hard and the soft palate can be felt easily with a finger.

The soft palate can be lowered to let the air escape through the nose. This is the normal position in breathing. This position is used for making nasal sounds, i.e. /m/, /n/, /ŋ/ in English. Figure 4 shows the position when the palate is lowered and the air passes through the nose. Figure 5 shows the position of soft palate for oral sound, when the soft palate is raised and the air passes through the mouth.

A small lobe of flesh hanging loosely from the centre of the soft palate is called uvula. It is not used in the production of any sound in English.

### The Teeth

The two upper front teeth are used in making /θ/ and /ð/ sounds in English. If the lower front teeth are missing, it will be difficult to make sounds such as /s/, /z/.

### The Tongue

The tongue is one of the most important organs of speech. It has the greatest variety of movement. It is useful to think of it as divided into three parts. When the tongue is at rest, the part opposite the teeth ridge is called the blade, its end being called the tip. The part opposite the hard palate is called the front and that opposite the soft palate is called the back. By giving the tongue different shapes, by bunching it up or flattening it out, and by raising or lowering different parts of it, we



can modify the space through which the air has to pass, and thereby produce many different sounds.

### The Lips

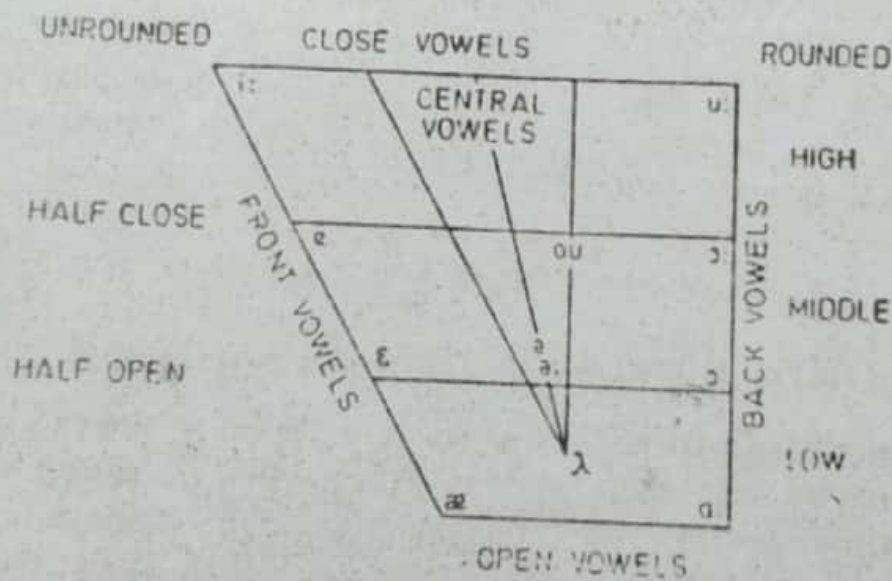
The lips function in four different positions.

- The lips are spread as in the vowel sound in 'keen'.
- They are *usual* neutral as in the vowel sound in 'pass'.
- They are rounded (open) as in the vowel sound in 'God'.
- They are rounded (closed) as in the vowel sound in 'soon'.

### Description Of English Vowels

A vowel is defined as a voiced sound in the production of which there is no *obstruction*, partial or complete, of the air passage.

Figure 2 shows vowels placed on the *cardinal* vowel chart.



(Figure No. 2.)

It will help the student immensely if he keeps in mind the position of the various vowels in the above

figure. This will facilitate his description of English vowels).

The English pure vowels are described below according to:

- (i) length,
- (ii) height of tongue,
- (iii) part of tongue which is highest,
- (iv) position of lips,
- (v) opening between the jaws.

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No. 1. /i:/, the sound in *see*, *key*, *tree*.

- (i) length: long vowel;
- (ii) height of tongue: nearly close;
- (iii) part of tongue which is highest: the front;
- (iv) position of lips: spread;
- (v) opening between the jaws: narrow to medium.

No. 2. /ɪ/, the sound in *bid*, *sit*, *pin*.

- (i) length: short vowel;
- (ii) height of tongue: nearly half close;
- (iii) part of tongue which is highest: the hinder part of the front;
- (iv) position of lips: spread;
- (v) opening between the jaws: narrow to medium.

No. 3. (e) /e/, the sound in *get*, *led*, *tell*.

- (i) length: short vowel;
- (ii) height of tongue: mid-way between half-close and half-open;
- (iii) part of tongue which is highest: the front;
- (iv) position of lips: spread;
- (v) opening between the jaws: medium.

No. 4. (æ) /æ/, the sound in *bag*, *hat*, *lad*.

- (i) length: short vowel;
- (ii) height of tongue: mid-way between half-open and open;
- (iii) part of tongue which is highest: the front;



- (iv) position of lips: spread;
- (v) opening between the jaws: medium to wide.

No. 5. <sup>sound</sup> (ʌ) /a:/, the sound in *pass*, *fast*, *hard*.

- (i) length: long vowel;
- (ii) height of tongue: fully open;
- (iii) part of tongue which is highest: the back;
- (iv) position of lips: neutral;
- (v) opening between the jaws: medium to wide.

No. 6. (ɒ) /ɒ/, the sound in *dog*, *not*, *top*.

- (i) length: short vowel;
- (ii) height of tongue: fully open;
- (iii) part of tongue which is highest: the back;
- (iv) position of lips: open lip-rounding;
- (v) opening between the jaws: medium to wide.

No. 7. (ɔ) /ɔ:/, the sound in *all*, *short*, *form*.

- (i) length: long vowel;
- (ii) height of tongue: between half-open and open;
- (iii) part of tongue which is highest: the back;
- (iv) position of lips: between open and close lip-rounding;
- (v) opening between the jaws: medium to fairly wide.

No. 8. (ʊ) /u/, the sound in *book*, *put*, *cook*.

- (i) length: short vowel;
- (ii) height of tongue: just above half close;
- (iii) part of tongue which is highest: the fore part of the back;
- (iv) position of lips: fairly close lip-rounding;
- (v) opening between the jaws: medium.

No. 9. (u) /u:/, the sound in *move*, *rule*, *food*.

- (i) length: long vowel;
- (ii) height of tongue: nearly close;
- (iii) part of tongue which is highest: the back;

- (iv) position of lips: close lip-rounding;  
 (v) opening between the jaws: narrow to medium.
- No. 10. *ʌ* /, the sound in *cut, love, flood. hut, nut, shut*  
 (i) length: short vowel;  
 (ii) height of tongue: half-open;  
 (iii) part of tongue which is highest: the <sup>front</sup> fore part of the back;  
 (iv) position of lips: neutral;  
 (v) opening between the jaws: wide.
- No. 11. *ɑː* /, the sound in *girl, learn, term*.  
 (i) length: long vowel;  
 (ii) height of tongue: little below the half close position;  
 (iii) part of tongue which is highest: the central part;  
 (iv) position of lips: neutral;  
 (v) opening between the jaws: narrow.
- No. 12. *ə* /, the first vowel sound in *admit* and the second vowel sound in *lemon*.  
 (i) length: very short vowel;  
 (ii) height of tongue: mid-way between the half-close and half-open;  
 (iii) part of tongue which is highest: the central part;  
 (iv) position of lips: neutral;  
 (v) opening between the jaws: medium.

### Description of English Diphthongs

A diphthong may be defined as a vowel which changes its quality in the course of its production: it begins as one vowel and ends as another. It is on account of this reason that a diphthong is indicated in phonetic transcription by writing two symbols, the first symbol showing the starting position of the tongue and the second symbol showing the final position of the tongue.



Diphthongs are of two types:

- ✓(1) closing and
- (2) centring.

(1) A diphthong is called a closing diphthong when the movement is towards the closer position of the tongue. If this movement is small, the diphthong is called **narrow**; but if the movement is large, the diphthong is called **wide**. See Figure 8.

(2) A diphthong is called a centring diphthong when the movement is towards the centre of the tongue.

It will help the student immensely if he keeps in mind the position of various diphthong in the above figures. This will facilitate the description of English diphthongs.

The English diphthongs are described below according to:

- ✓(i) type of diphthong;
- ✓(ii) position of tongue;
- ✓(iii) position of lips;
- (iv) opening between the jaws.

No. 13. /ei/, the sound in *age, day, aim*. <sup>aeim</sup>

- (i) type of diphthong: closing narrow;
- (ii) position of tongue: the tongue starts in the position for vowel No. 3. /e/ and moves towards No. 2. /i/;
- (iii) position of lips: spread and more open at the start then at the end;
- (iv) opening between the jaws: medium at the start becomes narrow towards the end.

No. 14. /ou/, the sound in *go, low, foe*.

- (i) type of diphthong: closing narrow;
- (ii) position of tongue: the tongue starts just below half-close position and moves towards vowel No. 8 /u/;

- (iii) position of lips: unrounded in the beginning, slight rounded towards the end;
- (iv) opening between the jaws: medium at the start becomes narrow towards the end.

No. 15. /ai/, the sound in *cry, buy, type*. *مَی*

- (i) type of diphthong: closing wide;
- (ii) position of tongue: the tongue starts at the fully open position and moves towards vowel No. 2. /i/;
- (iii) position of lips: neutral to spread;
- (iv) opening between the jaws: wide at the start and then becomes less.

No. 16. /au/, the sound in *out, cow, now*.

- (i) type of diphthong: closing wide;
- (ii) position of tongue: the tongue starts at the fully open position and moves towards vowel No. 8. /u/; *اُو*
- (iii) position of lips: neutral in the beginning and weekly rounded at the end;
- (iv) opening between the jaws: wide at the start and then becomes less.

No. 17. /ɔi/, the sound in *boy, toy, oil*. *اَوِی*

- (i) type of diphthong: closing wide;
- (ii) position of tongue: the tongue starts near the back half-open position and moves towards vowel No. 2. /i/;
- (iii) position of lips: open rounded at the start and neutral at the end;
- (iv) opening between the jaws: wide at the start and then becomes less.

No. 18. /iə/, the sound in *dear, fear, clear*. *اِیْر*

- (i) type of diphthong: centring diphthong;
- (ii) position of tongue: the tongue begins with /i/ and moves towards /ə/;
- (iii) position of lips: neutral;



- (iv) opening between the jaws: narrow at the start and then increases.

No. 19. <sup>اے</sup> /ɛə/, the sound in *hair, fair, dare*.

- (i) type of diphthong: centring diphthong;  
 (ii) position of tongue: the tongue starts at nearly the half-open position and then moves towards vowel No. 12. /ə/;  
 (iii) position of lips: neutral;  
 (iv) opening between the jaws: fairly wide.

No. 20. <sup>او</sup> /uə/, the sound in *poor, sure, your*.

- (i) type of diphthong: centring diphthong;  
 (ii) position of tongue: the tongue starts in the position for vowel No. 8. /u/ and moves towards vowel No. 12. /ə/;  
 (iii) position of lips: weakly rounded at the beginning, neutral at the end;  
 (iv) opening between the jaws: medium in the beginning and then increases.

### Description of English Consonants

A Consonant may be defined as a sound in which the movement of air from the lungs is obstructed as a result of a narrowing or a complete closure of the air passage. There are 24 consonants in English.

### PLOSIVES OR STOPS ✓

There are six plosive consonants in English. These are the sounds formed by means of a complete closure of the air passage, which is afterwards released suddenly.

#### Bilabial Plosives /p, b/ ✓

These are the sounds used, for example, at the beginning of *pet* and *bet* respectively.

1. The air passage in the mouth is closed by the two lips, and the soft palate is raised to shut off the nasal passage.

2. When the lips are opened, the air suddenly

escapes from the mouth making an explosive sound.

3. The vocal cords vibrate for /b/ but not for /p/.

### Alveolar Plosives /t, d/ ✓

These are the sounds used, for example, at the beginning of *to* and *do*.

1. The air passage is completely closed by rising the tip of the tongue to touch the teeth ridge and by raising the soft palate.

2. When the tongue is removed from the teeth ridge, the air suddenly escapes through the mouth making an explosive sound.

3. The vocal cords vibrates for /d/ <sup>voice</sup> but not for /t/ <sup>voiceless</sup>.

### Velar Plosives /k, g/ ✓

These are the sounds used, for example, at the beginning of *kind* and *good*.

1. The air passage is completely closed by pressing the back of the tongue against the soft palate and by raising the soft palate itself.

2. When the closure is released, the air suddenly escapes through the mouth making an explosive sound.

3. The vocal cords vibrates for /g/ <sup>voice</sup> but not for /k/ <sup>voiceless</sup>.

## FRICATIVES ✓

There are ten fricative consonants in English. These are the sounds formed by narrowing the air passage to such an extent that the air in escaping produces audible friction.

### Labio-dental Fricatives /f, v/ ✓

These are the sounds used, for example, at the beginning of *fine* and *vine* respectively.

1. The lower lip is placed lightly against the upper teeth.

2. The soft palate is raised to shut off the nasal passage.



3. When the air is forced out, there is a hissing noise in the case of /f/, and a buzzing noise in the case of /v/.

4. The vocal cords vibrate for /v/ but not for /f/.

### Dental Fricative /θ, ð/ ✓

These are the sounds used, for example, at the beginning of *thin* and *this* respectively.

1. The tip of the tongue is placed behind the upper teeth touching them only lightly.

2. The soft palate is raised to shut off the nasal passage.

3. The air escapes through the narrow opening with a hissing or buzzing noise.

4. The vocal cords vibrate for /ð/ but not for /θ/.

### Alveolar Fricatives /s, z/ ✓

These are the sounds used, for example, at the beginning of *so* and *zoo*.

1. The blade of the tongue is brought very near the teeth, so that it leaves only a very narrow space for the air to pass through.

2. The soft palate is raised to shut off the nasal passage.

3. The air escapes through the groove along the middle of the tongue with audible friction.

4. The vocal cords vibrate for /z/ but not for /s/.

### Palato-alveolar Fricatives /ʃ, ʒ/ ✓

These are the sounds used, for example, at the beginning of *shop* and middle of *leisure*.

1. The blade of the tongue is raised towards the hard palate with the tip usually about level with the teeth ridge.

2. The soft palate is raised to shut off the nasal passage.

3. The air escapes through the narrow passage with audible friction.

4. The vocal cords vibrate for /ʒ/ but not for /ʃ/.

**Alveolar Fricative /r/ ✓**

This is the initial sound in *rose*.

1. The tip of the tongue is somewhat close to the teeth ridge.
2. The soft palate is raised to shut off the nasal passage.
3. The air escapes between the tip of the tongue and the teeth ridge.
4. The vocal cords are made to vibrate.

**Glottal Fricatives /h/ ✓**

This is the initial sound in *hay*.

1. The glottis is open and there is no obstruction in the air passage.
2. The soft palate is raised to shut off the nasal passage.
3. The sound of the breath of it passes through the open glottis and mouth is that of /h/.
4. The vocal cords do not vibrate.

**NASALS ✓**

There are three nasal sounds in English. These are the sounds formed by a complete closure in the mouth while the nasal passage is open.

**Bilabial Nasal /m/ ✓**

This is the initial sound in *my*.

1. The mouth passage is completely closed by the lips.
2. The soft palate is lowered to allow the air to escape through the nose.
3. The vocal cords vibrate.

**Alveolar Nasal /n/ ✓**

This is the initial sound in *no*.

1. The mouth passage is completely closed by



pressing the tip of the tongue against the teeth ridge.

2. The soft palate is lowered to allow the air to escape through the nose.

3. The vocal cords vibrate.

### **Velar Nasal /ŋ/.**

This is the final sound in *song*.

1. The mouth passage is completely closed by pressing the tip of the tongue against the soft palate.

2. The soft palate is lowered to allow the air to escape through the nose.

3. The vocal cords vibrate.

## **AFFRICATES**

There are two affricate sounds in English. These are the sound formed by means of a complete closure of the air passage which is afterwards released slowly.

### **Palato-alveolar Affricate /tʃ, dʒ/**

These are the sounds used, for example, at the beginning of *child* and *jem*.

1. The air passage is completely closed by raising the front of the tongue towards the hard palate and raising the soft palate.

2. The sound is produced by releasing the closure slowly.

3. The vocal cords vibrate for /dʒ/ but not for /tʃ/.

## **LATERAL**

### **Alveolar Lateral /l/.**

There are two varieties of /l/: a clear /l/ which is used in initial positions and before vowels and /j/ as in *life* and *silly*; a dark /l/ which occurs in final positions or when /l/ is followed by a consonant as in *mill*, *mind*.

1. For both types the tip of the tongue is pressed

against the teeth ridge. But there is a difference in the shape of the main body of the tongue. For 'clear' /l/ the front of the tongue, is raised towards the hard palate. For 'dark' /l/ the back of the tongue is raised towards the soft palate. (see Fig. 21 and 22).

2. The soft palate is raised to shut off the nasal passage.

3. The tongue is contracted sideways and the air escapes at the side of the tongue.

4. The vocal cords vibrate.

## SEMI-VOWELS ✓

### Bi-labial Semi-Vowel /w/ ✓

This is the initial sound in *wine*.

1. The back of the tongue is raised towards the soft palate as in vowel /u:/.

2. The soft palate is raised to shut off the nasal passage.

3. The lips are rounded.

4. The vocal cords vibrate.

### Palatal Semi-Vowel /j/ ✓

This is the initial sound in *young*.

1. The front of the tongue is raised towards the hard palate, is an vowel /i:/.

2. The soft palate is raised to shut off the nasal passage.

3. The lips are spread.

4. The vocal cords vibrate. ✓

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## THE CONSONANT CHART

The chart accompanying shows at a glance all English consonants. For example, if we want to know about /f/, we find that it is a voiceless labio-dental fricative. Likewise, /d/ is a voiced alveolar plosive.



## THE ENGLISH CONSONANTS

How made (Nature of obstruction)	Where made (Place of obstruction)														
	Bi-labial Lip		Labio- dental Teeth Lid		Dental Teeth Tip		Alveolar Ridge Tip		Palato Alveolar Back of Ridge Tip		Palatal Hard Palate Front		Velar Soft Palate Front		Glottal
	Voiceless	Voiced	Voiceless	Voiced	Voiceless	Voiced	Voiceless	Voiced	Voiceless	Voiced	Voiceless	Voiced	Voiceless	Voiced	
Plosives	P	b													
Nasals	—	m													
Fricatives	—		f	v	θ	ð	—	—	—	—	—	—	—	—	
Lateral							l	d							
Affricates							ʃ	ʒ							
Semi-vowels	w														

## Phonemes

From the scientific point of view, 'speech' is considered to be made up from a number of distinct sounds. These sounds are called phonemes. In simple words, a phoneme is a distinct speech sound, although phonemes become united to form words in the stream of speech. various flows

Every language makes its own selection from the sounds which are possible. No language uses all of them. English has two types of phonemes: (a) Vowel Phonemes, and (b) Consonant Phonemes.

*Q: what is the difference b/w Phonemes and Letters?*  
Here a word of caution. Do not confuse the number of separate phonemes with the number of letters used in a word. The following examples will illustrate the distinction between phonemes and letters:

(i)	<u>Chat</u> 1 2 3 4	{	Letters	: 4
			Phonemes	: 3
(ii)	<u>Cheap</u> 1 2 3 4 5	{	Letters	: 5
			Phonemes	: 3

## STRESS *S.Qs*

Stress is the degree of force with which a syllable or a word is uttered.

Stress is crucial in English pronunciation. It can be called a grammatical device in spoken English. In English, a part of the meaning of a word depends on its stress; it (stress) serves to mark the function of words in spoken English.

Most of our students learn English grammar from books that is why their sense of stress remains undeveloped. To give due weightage to each syllable as we see it written is to often distort the word from its standard pronunciation. English words are pronounced with one dominant syllable while the other syllables tend to get squashed and reduced.



<sup>S-Q</sup>  
**Word Stress.** Word stress shows what syllable or syllables in a word are stressed, e.g. 'useful is stressed on the first syllable, mis'take is stressed on the second, 'advant'tageous has a primary stress on the third syllable and a secondary stress on the first syllable. (The primary stress is indicated by placing a vertical stroke above the syllable, and the secondary stress by placing a vertical stroke below the syllable.

<sup>S-Q</sup>  
**Sentence Stress.** Sentence stress indicates what words in a sentence are stressed. Look at the following paragraph:

'John is my 'friend. He 'lives in 'Lahore. His 'father is a 'teacher in a 'school. 'John 'visits me 'every 'month.

In this paragraph we find that certain words are stressed whereas others are not. Generally nouns, demonstrative and interrogative pronouns, main verbs, adjectives and adverbs are stressed, whereas pronouns, prepositions, helping verbs, conjunctions are not stressed.

**(b) Examples of some stress patterns of simple words.**

There is no simple way of learning the stress of a word in English. The best way is to listen attentively to a good speaker and to look up the dictionary.

Here are some examples of stress patterns of simple words:

- (i) In two syllable words, there is a tendency to stress the first syllable for the noun and the second syllable for the verb. Some words of this nature are:
- |                     |                 |
|---------------------|-----------------|
| (a) Conflict (Noun) | conflict (Verb) |
| (b) Convict (Noun)  | convict (Verb)  |
| (c) Present (Noun)  | present (Verb)  |
| (d) Insult (Noun)   | insult (Verb)   |

In Pakistan, there is a wide-spread tendency to use the verb stress even for the nouns. This practice must be avoided.

- (ii) The adjectives also follow the same stress pattern as the nouns:  
record , compact
- (iii) Native English words tend to place the stress on the basic word and to maintain it there even if 'Prefixes' or 'Suffixes' are added:
  - (a) man manly manlike
  - (b) stand standing outstanding
- (iv) Nouns and adjectives ending in "ian" and "ity" are stressed on the third last syllable:
  - (a) grammarian , utilitarian
  - (b) majority , inferiority
- (v) Nouns ending in "phy", "thy", "try", "ncy", "gy" and "any" indicate stress pattern on the third last syllable:  
philosophy , geology , tendency
- (vi) Adjectives ending in "al" indicate stress on the third last typical syllable:  
typical , logical

### (c) Sentence stress in English

In English speech, some words are stressed and others are not. In normal speech all nouns, demonstrative and interrogative pronouns, main verbs, adjectives and adverbs are stressed. The pronouns, prepositions, conjunctions, helping verbs are not stressed.

Look at the following sentences:

1. It's a 'door.
2. 'Take a 'book out of the 'bag.
3. The 'dog is a 'faithful 'animal.
4. 'Where are you 'going?
5. 'Bring me a 'pencil.
6. 'When will she 'go?

Sometimes, a word which is normally unstressed in a sentence, is stressed when we want to lay emphasis on it. That way the meaning of the whole sentence changes.



Look at the following sentence:

He is my 'friend.

In normal speech, the word friend is stressed. But if we stress other words in the sentence, the meaning changes as follows:

'He is my friend.	(He, not the other fellow)
He 'is my friend.	(Why do you deny it ?)
He is my 'friend.	(Not Aslam's)

### Weak Forms in English

In English speech, some words are stressed and others are not. In normal speech all nouns, demonstrative and interrogative pronouns, main verbs, adjectives and adverbs are stressed. The pronouns, prepositions, conjunctions, helping verbs are not stressed. These words are said to have weak forms. The following is the detailed list of words which have both strong and weak forms.

#### 1. Pronouns

<i>Pronouns</i>	<i>Strong Form</i>	<i>Weak Form</i>
me	/mi:/	/mi/
(similarly: we, he she)		
us	/ʌs/	/əs, s/
you	/ju:/	/ju, jə/
your	/juə/	/juə, jə/
them	/ðəm/	/ðəm, əm/
that	/ðæt/	/ðət/
who	/hu:/	/hu, u/

#### 2. Verbs

<i>Verbs</i>	<i>Strong Form</i>	<i>Weak Form</i>
be	/bi:/	/bi/
am	/aem/	/əm, m/
is	/iz/	/z, s/
are	/a:/	/ə/

Verbs	Strong Form	Weak Form
was	/wɒz/	/wəz/
were	/wə:/	/wə/
have	/hæv/	/həv, əv, v/
has	/hæz/	/həz, əz, z, s/
had	/hæd/	/həd, əd, d/
can	/kæn/	/kən, kn/
could	/kud/	/kəd, kd/
shall	/ʃæl/	/ʃəf, əl, l/
should	/ʃud/	/ʃəd, ʃd/
will	/wil/	/əl, l/
would	/wud/	/wəd, əd, d/
do	/du:/	/du, dɒ, d/
does	dʌz/	/dəz, dz/
must	/mʌs/	/məst, məs, ms/

### 3. ✓ Prepositions

Prepositions	Strong Form	Weak Form
at	/æt/	/ət/
for	/fɔ:/	/fə/
from	/frɒm/	/frəm/
of	/ɒv/	/əv, ə/
to	/tu:/	/tu, tə/

### 4. ✓ Conjunctions

Conjunctions	Strong Form	Weak Form
and	/ænd/	/ənd, ən, n/
as	/æz/	/əz/
but	/bʌt/	/bət/
or	/ɔ:/	/ə/
than	/ðæn/	/ðən/



## 5. ✓ Articles

Articles	Strong Form	Weak Form
a	/eɪ/	/ə/
an	/æn/	/ən/
the	/ði/	/ði, ðə/

## 6. ✓ Some other words

Words	Strong Form	Weak Form
some	/sʌm/	/səm/
there	/ðeə/	/ðə/

## 7. ✗ Weak form of negatives

The word 'not' most often has stress and is pronounced /nɒt/. A weak form /nt/ occurs in certain contractions, namely:

can't /kɑ:nt/	doesn't //dvzn/	hadn't /haednt/
couldn't /kudnt/	didn't /didnt/	mustn't /mʌsnt/
shan't /ʃa:nt/	isn't /iznt/	mayn't /meint/
shouldn't /ʃudnt/	wasn't /wɔznt/	mightn't /maitnt/
won't /wount/	aren't /a:nt/	needn't /ni:dnt/
wouldn't /wudnt/	hasn't /haeznt/	
don't /dount/	haven't /haevnt/	

It is normal to use the weak forms of the above mentioned words in English. The strong form of these words is used:

1. When a word is said in isolation ; as,  
What is the plural of 'he' ?
2. When two or more words are contrasted ; as,  
He said 'at' the house not 'in' it.
3. Before a pause in the middle or at the end of a sentence.  
If you 'can', please lend me a hundred rupees.  
What are you aiming 'at' ?

The greater part of the spoken language employs

weak formations. This is done mostly to avoid delay and achieve a greater speaking rate. That is why we emphasize only a few syllable/words in a sentence at the expense of the others. The result is the phenomenon of weakening.

The weakening of the word forms is a relative process. Most frequently it is the phonetic context that determines the changes words undergo in connected speech. In many cases the retention, dropping or compression of an element is a matter of speaker's choice; the natural rate of articulation of a speaker has much to do with the patterns of his speech.

### Rhythm ✓ S.Q

When we speak, we stress some words and do not stress others. In normal speech all nouns, demonstrative and interrogative pronouns, main verbs, adjectives and adverbs are stressed. The pronouns, prepositions, conjunctions, helping verbs are not stressed.

This stressing and unstressing of certain words in English has given to it a rhythm of its own.

Listening to an English sentence, we are aware of what one writer has called a regular series of peaks and troughs, i.e. stresses occurring, at regular intervals, almost like beats in music with unstressed syllables, many or few, between them, spaced out or crowded in, whichever is necessary to preserve the regular drum-beat of the utterance.

English is a stress-timed language which means that the stressed syllables occur at equal intervals of time. In other words, each stress group in a sentence is given the same amount of time. (A stress group consists of a stressed syllable together with any unstressed syllables which may follow the stressed one).

Look at the following sentences:

1. 'What do you 'want me to 'do ?
2. 'What do you 'want to 'do ?
3. 'What do you 'want 'done ?



In each of the above sentences there are three stress group; each stress group is to be spoken in the same amount of time. In sentence one the first stress group 'what do you' consisting of a stressed syllable and two unstressed ones is spoken in the same amount of time as the single stressed syllable 'do'. In sentence 1, the stressed group 'want me to' takes as much time to speak as 'want to' in sentence 2 or 'want' in sentence 3.

## INTONATION ✓ Q

Intonation is the tune, the melody, the music of speech. When a person speaks, he does not say every word on the same note. There are changes of pitch, there is rise and fall of voice. The study of these changes of pitch is called intonation.

(Intonation shows the speaker's mental attitude. The word, yes, ~~may serve as a definite statement, or~~ an exclamation, or as a question, depending on intonation.

Gimson defines intonation as "the variations which take place in the pitch of the voice in connected speech, i.e., the variations in the pitch of the musical note produced by the variation of the vocal cords."

Gimson divides the functions of intonations into two main categories: (a) accentual, and (b) non-accentual.

**Accentual Intonation:** Accentual intonation changes are the most efficient means of rendering prominent for a listener those parts of an utterance on which the speaker wishes to concentrate attention.

**Non-accentual Intonation:** Non-accentual intonation is used as a means for distinguishing different types of sentences. The same sequence of words may, with a falling intonation, be interpreted as a statement, or, with a rising intonation, as a question.

Some people ~~might~~ <sup>that</sup> consider stress and intonation nothing more than phonological niceties to be indulged now and then for the sake of pedantic satisfaction. (But this is not the case) Stress and intonation constitute an

(Both essential part of oral expression. Stress and intonation are related features) and it is not always possible for the non-experts to perceive the distinction between them. But they are (two separate things and demand equal emphasis).

The pitch of voice undergoes frequent change in ordinary speech. But if the nature of speech is declamatory or highly emotional, it always follows that there will be greater range in intonation.

In ordinary conversation, we have two levels of intonation. With a rising pitch of voice, we get rising intonation; with a falling intonation.

### 1. **Falling Intonation or the Falling Tune**

In the Falling <sup>Intonation</sup> Tune, (there is a ~~fairly~~ high level pitch on the first stressed syllable, a slightly lower level ~~on the next~~, and so on ~~down a~~ descending scale till the last stressed syllable, on which the pitch of the voice falls to its lowest normal tone.) This type of intonation may be <sup>re</sup>presented by the line /.

The Falling Tune is used in:

- (i) Statements; as,  
My name is Hamid.  
I am twenty years old.
- (ii) Questions, beginning with a question word;  
as,  
What's your name ?  
How old are you ?
- (iii) Commands; as,  
Sit down.  
Stand up /
- (iv) Exclamations; as,  
What a beautiful picture !  
How nice !
- (v) Question tags, when the speaker does not expect the other person to disagree with him;  
as,



It's Sunday today, isn't it?  
You're on a holiday, aren't you?

## 2. Rising Intonation or the Rising Tune

In the Rising Tune there is a series of descending steps on stressed syllables as in the Falling Tune, but there is a rise on the last stressed syllable. This type of intonation may be represented by the line /.

The Rising Tune is used in :

- (i) Questions that can be answered with 'yes' or 'no'; as,

*Are you leaving tomorrow?*

*Was he hurt?*

- (ii) Question tags, when the speaker seeks an information or does not necessarily expect the other person to agree with him; as,

1. *You'll visit Lahore, won't you?*

2. *You're not very rich, are you?*

- (iii) Parts of sentences which lead on to something else; as,

*I went to Rehan's and he wasn't there.*

*He's going to England but she's going to America.*

## Teaching English Pronunciation

The following are the difficulties that our students face in learning English pronunciation:

(i) Difficulties with new vowel and consonant sounds: English has certain vowel and consonant sounds which do not occur in the mother or national tongue of our students. These sounds present difficulties to the students.

(2) Difficulties with stress: The stress system in English is different from what it is in the mother tongue. The stress in English carries meaning, e.g. 'rebel, re'bel'. If we stress the first syllable in *rebel*, it becomes a noun, but if we stress the second syllable, it becomes a verb. Likewise, the meaning of an utterance is different

depending upon which word is stressed. A Pakistani mother tongue does not observe such distinctions.

**(5) Difficulties with intonation:** The intonation of English is also different from that of the mother tongue. It is very difficult to learn it.

It has been rightly said that whereas it is easier to master individual sounds in English, it is very difficult to master the stress, rhythm and intonation patterns.

**(6) Difficulties with rhythm:** English is stress-timed language, that is, the stressed syllable in English occur at equal intervals of time. It is very difficult for the learner to master the rhythm of English as his own language is syllable-timed.

**(7) Difficulties with orthography:** English is not a phonetic language, that is, the pronunciation of a word is not the combination of the various letters constituting it. Consider the words *knife*, *enough*. The spelling of an English word is not a sure guide to its pronunciation.

### **How to remove these difficulties ?**

The difficulties of pronunciation can be overcome by attending to the following points:

#### **1. Importance of the teacher's model**

The importance of the teacher's model can hardly be over-emphasised. The pronunciation of a student cannot be better than that of his teacher as the student learns pronunciation through imitation. It is for this reason that in certain countries the best teachers of English are entrusted with the responsibility of teaching the beginners in language. As such the teacher of English should ensure that his own pronunciation is good. He should listen to the English programmes over the radio. He should look up the dictionary in case he is in doubt about the pronunciation of a word.

#### **2. Model of pronunciation to be followed.**

There are some educationists who hold the view that we should aim at teaching the Received Pronunciation (R.P.). (R.P. is the pronunciation of Southern England. It is used by B.B.C. and is taught in



Public Schools in England. It has been so well described by Daniel Jones and A. C. Gimson.). R.P. is favoured because it enjoys the widest intelligibility.

### 3. **Emphasis on pronunciation.**

Stress has to be laid on the teaching of pronunciation. This is specially so in the early classes because when once the habits of wrong pronunciation are formed, it will be very difficult for the students to get rid of those wrong habits later on and to form the new ones. It is for this reason that the teachers whose pronunciation is good should be asked to teach the beginners classes in English.

### 4. **Teaching difficult sounds.**

The difficult sounds for the student are those that do not occur in his mother tongue. Such vowel, diphthong and consonant sounds should be listed at the beginning of a lesson.

The following steps should be followed in teaching the sounds that are new to the student:

(i) **Step 1. Production of the new sound by the teacher.** The teacher speaks a number of words containing a new sound. This provides sufficient ear training to the students to recognise the new sound. The students are also told the position of various speech organs in producing the sound. For example, in producing /w/, lips are closely rounded, as in whistling. In producing /v/, the lower lip is pressed against the upper teeth.

(ii) **Step 2. Production of the new sound by students.** Students are asked to speak the words containing the new sound after the teacher.

(iii) **Step 3. Presentation of minimal pairs.** As some sounds are likely to be confused with others they should be presented in minimal pairs. (A minimal pair is a pair of words which differ from each other in one sound only, the position of the sound remaining the same, e.g. *bed, bad, good, god*). First the students learn to recognise the two sounds and then to produce them.

(iv) **Step 4. Testing.** The teacher speaks a word from one column and asks the students to speak out the corresponding word from the other column.

5. **Using audio-visual aids.**

Audio-visual aids such as linguaphones, tape-recorders, radio, television and language laboratory can also be used profitably for teaching pronunciation. The students may listen to linguaphones and these provide them ear training. The students can also listen to tapes for stress, rhythm and intonation and get their own voice recorded. Senior students can improve their pronunciation by listening to the radio or watching programmes in English or television.

### TYPICAL QUESTIONS

1. *What is phonetic transcription? What is its significance?*
2. *What are the different organs of speech? Discuss the part played by each.*
3. *Define a vowel. Give a brief description of each English vowel.*
4. *Define a diphthong. Give a brief description of each English diphthong.*
5. *What is a consonant? Give a brief description of each English consonant?*
6. *What is stress? What is the difference between 'word stress' and 'sentence stress'?*  
**OR**  
*'English is a stress-timed language.' Discuss.*
7. *What are weak form in English? Why are they used?*
8. *What is intonation? Explain the different types of intonation by giving examples.*
9. *What are the most common difficulties with Pakistani students in acquiring correct speech*