

Q. Define phonology.

Phonology is the study of the sounds of a particular language (e.g., English). In phonology, it matters whether sounds are contrastive or not, that is, whether substituting one sound for another gives a different, or "contrastive," meaning

Q. Types of phonetics

Phonetics is the scientific study of speech sounds. It has three major branches: articulatory phonetics, acoustics phonetics and auditory phonetics. **Articulatory phonetics** deals with studying the making of single sounds by the vocal tract. It is the branch of phonetics which studies the way in which speech sounds are made ('articulated') by the vocal organs. **Acoustic phonetics** is related to the study of physical attributes of sounds produced by the vocal tract. It is the branch of phonetics which studies the physical properties of speech sound as transmitted between mouth and ear according to the principles of acoustics (the branch of physics devoted to the study of sound).

Auditory phonetics deals with understanding how human ear perceives sound and how the brain recognizes different speech units. This branch of phonetics studies the perceptual response to speech sounds as mediated by ear, auditory nerve and brain..

Q. Differ phonetics and phonology

Phonetics Phonology

General Specific

Study of human speech/language. Study of a particular language

How sounds are articulated. How sounds are contrastive

Speech production, transmission and Reception Syllables, phrase, rhythm, tone , intonation

Q. Write three researches of experimental phonology and phonetics.

Firstly in the articulatory field, we measure and study how speech is produced.

Similarly, in the acoustic field we examine the relationship between articulation and the resulting acoustic signal, and look at physical properties of speech sounds in general.

Finally, in the auditory field we do perceptual tests to discover how the listener's ear and brain interpret the information in the speech signal.

Q. Three major types of phonetics:

articulatory phonetics, acoustics phonetics and auditory phonetics.

Q. Write any three types of Phonations. IMP

There are mainly four possible glottis/larynx settings or types of phonation:

1. Voiceless – when the folds are open apart and the air passing through the glottis freely (/t/ or /p/).
2. Voiced – when the folds are tight together and there is vibration during the air passage though the glottis (e.g., /b/ or /d/).
3. Creaky voice – when there is a slight opening in the front and the arytenoid cartilages are tight together, so that the vocal folds can vibrate only at the anterior end (the small opening at the top).
4. Breathy or murmuring sound – when the vocal folds are apart but still they are vibrating - a breathy voice is like a whisper except voice.

Q. Why we study suprasegmental?

'Supra' means above (beyond) and 'segments' means sounds (such as vowels and consonants) so the term 'suprasegmental' means 'above sounds'. The term suprasegmental was initially invented to refer to aspects of sound such as intonation that did not seem to be the properties of individual segments (i.e. the vowels and consonants of which speech is composed).. There has never been full agreement about how many suprasegmental features are to be found in speech, but pitch, loudness, tempo, juncture, syllable, rhythm and stress are the most commonly mentioned ones.

Q. Suprasegmental features

Suprasegmental is a term used in phonetics and phonology to refer to a vocal effect (such as tone, intonation, stress, etc.) which extends over more than one sound (segment) in an utterance. Major suprasegmental features include pitch, stress, tone, intonation or juncture. Remember that these features are meaningful when they are applied above segmental level (on more than one segment).

Q. Phonological studies can be divided into two fields/ sub fields

segmental phonology and suprasegmental phonology. Suprasegmental features have been extensively explored in the recent decades and many theories have been constituted related to the application and description of these features.

Q. Importance of transcription with examples 5 marks

Transcription is an important tool in phonetics and phonology. Based on a specific set of symbols, transcription is the writing down of a spoken utterance. In its original meaning, the implied word is converted from one representation (e.g. written text) into another (e.g. phonetic symbols). In a phonetic transcription the transcriber may use the full range of phonetic symbols if these are required; a narrow phonetic transcription is one which carries a lot of fine detail about the precise phonetic quality of sounds, while a broad phonetic transcription gives a more limited amount of phonetic information.

Transcription is an important part of the present course based on the objective to understand the sound-symbol correspondence. Transcription is a useful technique for highlighting the phonemes of a language during documentation and description.

Narrow transcription:

Conventionally, square brackets enclose phonetic transcription [k]. In narrow transcription, the sounds are symbolized on the basis of their articulatory/auditory identity, regardless of their function in a language (sometimes called an impressionistic transcription). In a phonetic transcription, the aim is not to judge the functional significance of sounds, in the context of some languages, but to identify the sounds as such (phonetic variation).

Approximants

Approximant is a phonetic term used to denote a consonant which makes very little obstruction to the airflow. Traditionally approximants have been divided into two groups: (1) "semivowels" such as [w] in English 'wet' and [j] in English 'yet', which are very similar to close vowels such as [u] and [i] but are produced as a rapid glide; and (2) "liquids" sounds which have an identifiable constriction of the airflow but not the one that is sufficiently obstructive to produce fricative noise. This category includes laterals such as English [l] in 'lead' and non-fricative [r] (phonetically ɹ) as in 'read'. BBC English has four approximant sounds which include [l] as in light, [r] as in right, [w] as in wet and [j] as in yet.

Q.Nasalization

Nasalization is an articulatory process whereby a sound is made 'nasal' (when the air is passing through the nasal cavity) due its adjacent nasal sound (it is an articulatory influence of an adjacent nasal consonant, as in words like mat or hand). A vowel can also be nasalised in words like man (when /a/ may be articulated with the soft palate lowered throughout), because of the nasal consonants' influence (this is called anticipatory coarticulation).

Q. Affricate sounds with 2 examples. 3

An affricate sound is a type of consonant which is made of a plosive followed by a fricative with the same place of articulation (so, it is a mixture of two steps or gestures). For example, /tʃ/ (the voiceless affricate) has /t/ and /ʃ/ as a sound at the beginning and end of the English words church /tʃɜːtʃ/. Remember that although it is very strange to call the combination of a plosive and a fricative a single sound (an affricate) (as it has been deliberated for quite some time) yet experts argue that an affricate is a single segment and accordingly it should be treated as a single unit. There are two affricates in English:

/tʃ/ and /dʒ/ (the first of these is voiceless, the second voiced) sounds as at the beginning and end of the English words church and judge. Both of them are post alveolar sounds by their place of **1.**

Q. write a note on Aspiration in plosive sounds :

In order to understand VOT, the three types of plosive sounds are to be explained – voiced, voiceless and a voiceless aspirated sound. For example, during the production of a fully voiced plosive (e.g., /b/ or /g/), the vocal folds vibrate throughout; in a voiceless unaspirated plosive (such as /p/ or /t/), there is a delay (or lag) before voicing starts; and, in a voiceless aspirated

plosive (e.g., /p^h/ or /t^h/), the delay is much longer, depending on the amount of aspiration. The amount of this delay is called Voice Onset

Time (VOT) which in relation to the types of plosive varies from language to language.

Rules for ECA

1. Consonants are longer when at the end of a phrase (e.g., bib, did, don and nod).
2. Voiceless stops (e.g., p, t, k) are aspirated when they are syllable initial (pip, test, kick).
3. Voiced obstruents (b, d, g, v, ð, z, ʒ) are voiced only when they occur at the end of an utterance or before a voiceless sound.
4. Voiced stops (b, d, g) and affricate (dʒ) are voiceless when they are syllable initial (except when immediately preceded by a voiced sound – compare a day with this day).
5. Voiceless stops (p, t, k) are unaspirated after /s/ in words such as spew, stew and skew.

Q. Fricative sounds:

A fricative consonant is made by forcing air through a narrow gap so that a hissing noise is generated. This may be accompanied by voicing (in which case the sound is a voiced fricative, such as [z] or it may be voiceless as [s]). The quality and intensity of fricative sounds varies greatly, but all are acoustically composed of energy at relatively high frequency. There are several fricative sounds in English, both voiced and voiceless, as in fin [f], van [v], thin [θ], this [ð], sin [s], zoo [z], ship [ʃ], measure [ʒ] and hoop [h]. A distinction is sometimes made between sibilant or strident fricatives. Sibilant fricatives (such as s, ʃ) are strong and clearly audible and strident fricatives are weak and less audible (such as θ, f). BBC pronunciation has nine fricative phonemes: f, θ, s, ʃ, h (voiceless) and v, ð, z, ʒ (voiced).

• Fricatives 9

Fricative sounds • f fine • v vine • θ think • ð this • s seal • z zeal • ʃ sheep • ʒ measure • h how

Q. Stop Sounds:

Typical stop sounds are found in English and other languages of the world but there are some other interesting types of stops which are found in languages other than English. Note the following table and see how rich are the stop sounds found in various languages:

Description Symbol Language

1. Voiced b English and other languages
2. Voiceless unaspirated p -do3. Prenasalized nd Swahili

Dental sounds

are present both in British and American English, e.g. dental fricatives [θ, ð] but there are no dental stops, nasals, or laterals except allophonically realized (before [θ, ð] as in eighth, tenth, wealth). Many speakers of French, Italian, and other languages (such as Urdu, Pashto and Sindhi) typically have dental stops such as [t̪ d̪]. However, there is a great deal of individual variation in the pronunciation of these consonants in all these languages.

Stop Consonants

'Stop' is often used as if synonymous with **plosive**. However, some phoneticians use it to refer to the class of sounds in which there is complete closure specifically in the oral cavity. In this case, sounds such as m, n are also stops. More precisely, they are nasal stops. In English, there are nine stops (six oral and three nasal):

bilabial alveolar velar

- Voiced p t k

+Voiced b d g

(nasal) +Voiced m n ŋ

Q What are clicks?

The basic mechanism for this is the air-tight closure between the back of the tongue and the soft palate, just as if the tongue is then retracted, and the pressure in the oral cavity is lowered and suction takes place. Consonants produced with this mechanism are called clicks. These sounds have a distinctive role in some languages such as Zulu. In English, they may be heard in the 'tut tut' (or tsk tsk) sounds, and in a few other contexts

Coarticulation Process is the way the brain organizes sequences of vowels and consonants, interweaving the individual movements necessary for each into one smooth whole. In fact, the process applies to all body movement, not just speech, and is part of how homo sapiens works.

Q. Mention the five points of acoustic phonology suggested by the phoneticians.

According to the experts of speech sounds (phoneticians), acoustic analysis can provide a clear, objective datum for the investigation of speech – the physical ‘facts’ of utterance. In other words, acoustic evidence is often referred to when one wants to support an analysis being made in articulatory or auditory phonetics. However, it is important to note down that one should not be too reliant on acoustic analyses which are subject to many mechanical limitations (e.g. the need to calibrate measuring devices accurately), and which are often themselves open to multiple interpretations.

Acoustic analysis

Not only gives us the features of a sound but also tells us about the duration or length of a speech sound. For such an analysis, we need to carefully know about material and procedure of recording. Thus, acoustic analysis describes the durational characteristics, articulatory properties and phonetic differences through physiological measurement.

Q. Aspiration Aspiration is a puff of noise made when a consonantal constriction is released and air is allowed to escape relatively freely (e.g., in English /p t k/ at the beginning of a syllable are aspirated). Phonetically, aspiration is the result of the vocal cords being widely parted at the time of the articulatory release. In some languages (such as English) aspiration is allophonic while in others (such as Urdu) it is phonemic. Pronunciation teachers used to make learners of English practice aspirated plosives by seeing if they could blow out a candle flame with the rush of air after p t k – this can, of course, lead to a rather exaggerated pronunciation (and superficial burns). A rather different articulation is used for the so-called voiced aspirated plosives found in many Indian languages (often spelt as ‘bh’, ‘dh’, ‘gh’) where after the release of the constriction the vocal folds vibrate to produce voicing, but are not firmly pressed together; the result is that a large amount of air escapes at the same time, producing a “breathy” quality.

Q. three components or factors effecting the difference in sounds
intensity, pitch and tone.

Q. Write a note on glottis:

The space between the vocal folds (glottis - inside the larynx) can assume a number of positions thus modifying the form of speech sounds and changing the features of it. When brought into light this contact of vocal folds with each other, the shape of vibration (of air passage) is forced to produce phonation or voicing. So, based on the possibilities of the nature of vibration, the states of glottis are determined thus the vibration can be made to vary in many ways, resulting in differences in such things as pitch, loudness and voice quality. If a narrow opening is made between the vocal folds, friction noise can result and this is found in whispering and in the glottal fricative /h/. A more widely open glottis is found in most voiceless consonant.

What does the statement/ Allophones

"It is systematic variant of phoneme" tells.

An allophone is a definable systematic variant of a phoneme. Compare the following sets: 1. ‘s’ sound in words like sill, still and spill or in words like seed, steed and speed

2. ‘k’ sound in words like, key and car

3. ‘t’ sound in words like true and tea 4. ‘n’ sound in words like tenth and ten 5. Phone is a sound pattern having some acoustic features.

Q. Keeping in mind the allophones

Fill the following blanks.

"A vowel is longest in a/an open syllable, next longest in a syllable closed by a/an voiced consonant and shortest in a syllable closed by a/ an voiceless consonant.(eg. Compare , sea, seed, seat or sight, side, site)

Q. intrinsic and extrinsic phonemes {IT Might be about Allophones.}

Extrinsic allophone: which cannot be explained simply by reference to phonetic features of the environment in which it appears

Intrinsic allophone: which may be explained principally by reference to phonetic features of the environment in which occurs

Q. Write any three accents of language from the four/ accent diff IMP

1. Difference in phonological inventories. Compare /stræt/ vs. /strʊt/.
2. Difference in phonetic features such as pronouncing /t/ as [ʔ].
3. Phonological distribution e.g., rhotic vs. non-rhotic accents.

Fortis refers to a sound made with a relatively strong degree of muscular effort and breath force compared with the other sound (known as lenis). The distinction between tense and lax is used for vowels on the similar lines.

articulation.

Q. VOT:

Voice Onset Time (VOT) is a term used in phonetics referring to the point in time at which vocal fold vibration starts in relation to the release of a closure (during the production of plosive sounds).

In order to understand VOT, the three types of plosive sounds are to be explained – voiced, voiceless and a voiceless aspirated sound. For example, during the production of a fully voiced plosive (e.g., /b/ or /g/), the vocal folds vibrate throughout; in a voiceless unaspirated plosive (such as /p/ or /t/), there is a delay (or lag) before voicing starts; and, in a voiceless aspirated plosive (e.g., /p^h/ or /t^h/), the delay is much longer, depending on the amount of aspiration. The amount of this delay is called Voice Onset

Time (VOT) which in relation to the types of plosive varies from language to language.

Q. What happened to VOT when stops at after vowel.

There are three possible types of VOT based on the nature of stop sounds.

1. Firstly, simple **unaspirated voiceless stops have a voice** onset time at or near zero. This means that the voicing of a following vowel begins at or near to when the stop is released.
2. The second possibility is when aspirated stops are followed by a vowel: voice onset time is greater than zero **called a positive VOT**. The length of the VOT in such cases is based on the practical measure of aspiration – the longer the VOT, the stronger the aspiration lasts twice as long as that of English - 150ms).
3. The third possibility is when voiced stops have a VOT noticeably less **than zero called "negative VOT"**. This would simply mean that the vocal cords start vibrating before the stop is released.

Q. VOT in Navajo language 5

The Navajo aspirated stops have a very large VOT value that is quite exceptional (150 MS). The length of the VOT in such cases is based on the practical measure of aspiration – the longer the VOT, the stronger the aspiration (Navajo, for example, has strongly aspirated stops where, the aspiration (and therefore the VOT) lasts twice as long as that of English - 150ms)

Q.What are Rhotic vowels

Rhotic speakers pronounce "R" in all positions, while non-rhotic speakers pronounce it only if it is followed by a vowel. In phonetics, an r-colored or rhotic vowel (also called a retroflex vowel, vocalic r, or a rhotacized vowel) is a vowel that is modified in a way that results in a lowering in frequency of the third formant.

R-colored vowels can be articulated in various ways: the tip or blade of the tongue may be turned up during at least part of the articulation of the vowel (a retroflex articulation) or the back of the tongue may be bunched. In addition, the vocal tract may often be constricted in the region of the epiglottis

Q.Fortis and lenis consonants/ Tense vowels

In linguistics, fortis and lenis, also called tense and lax, refer to consonants pronounced with greater and lesser energy. English has fortis consonants, such as the p in pat, with a corresponding lenis consonant, such as the b in bat. Fortis and lenis consonants may be distinguished by tenseness or other characteristics, such as voicing, aspiration, glottalization, velarization, length,

and length of nearby vowels. Fortis and lenis were coined for languages where the contrast between sounds such as p and b does not involve voicing. Fortis and Lenis Consonants These are the terms used in the phonetic classification of consonantal sounds on the basis of their manners of articulation.

Q. Lax vowels:

Lax vowels, remember, are short. Lax sounds are produced with less muscular effort and movement, and are relatively short and indistinct vowel sounds (e.g., i, e, ɒ, æ, ʌ, ʊ, ə vowels articulated near the center of the vowel area) compared to tense sounds (e.g., u:, i:, ɜ:, a:, ʊə, iə). In other words, a lax vowel is said to be the one produced with relatively little articulatory energy.

Q. Three feature of articulation of vowel 3:

- In the articulation of vowels, the articulators do not come close together and the air stream is relatively undisturbed.
- Vowels are the class of sounds which make the least obstruction to the flow of air.
- They are almost always found at the center of a syllable, and it is rare to find any sound other than a vowel which is able to stand alone as a whole syllable.

Q. /i/, /u/, /a/, /æ/, describe the position of tongue.3

- raising of the front of the tongue such as for /i/
- the back of the tongue is raised for an /u/ vowel sound.
- /a/ may be articulated with the soft palate lowered throughout
- low vowel /æ/ as in man and by keeping the soft palate lowered.

Q. No. of vowel and consonant 3

There are 44 sounds in English RP (BBC) accent. Out of them, 20 are vowels and 24 are consonants.

Q. Define Diphthong.

Diphthong is a single vowel consisting of the features of two vowels. Its most important feature is the glide from one vowel quality to another one (so basically it is a glide). The BBC accent of English contains a large number (eight in total) of diphthongs including three ending at /ɪ/ (eɪ, aɪ, ɔɪ – as in words bay, buy and boy), two ending at /ʊ/ (əʊ, aʊ – as in words no and now) and three ending at /ə/ (ɪə, eə, ʊə – as in words peer, pair and poor).

Q. Long and short vowels

Short vowels

ɪ pit
e pet
æ pat
ʌ putt
ɒ pot
ʊ put
ə another

Long Vowels:

i: bean
ɑ: barn
ɔ: born
u: boon
ɜ: burn

Q. American and British Vowels

Many of the American vowels are essentially different than those of British – and that is why it is a different English (compare Standard American Newscaster English with British English as spoken by BBC newscasters). When you carefully listen to American vowels as in words heed, hid, head, had (spoken by a native speaker of English) these vowels sound as if they differ by a series of equal steps.

Similarly, the back vowels also vary considerably in both forms of English (e.g., many Californians do not distinguish between the vowels in words father and author). Similarly, as in good and food also vary considerably as they have a very unrounded vowel in good and a rounded but central vowel in food. In short, American English in ways is distinct from the British English and as the students of phonetics and phonology we should try to explore these differences.

Q. criteria for describing eng consonant 5 marks

There are 24 consonants in the RP accent of English. These consonants are described in terms of (1) voicing, (2) manners and (3) places of articulation.

There are certain parameters for determining the manners of articulation such as stricture, laterality and nasality.

Consonantal sounds are divided, in terms of their manner of articulation, into two major types: obstruents (such as stops, fricatives and affricates) and sonorants (such as nasals, liquids and glides).

A number of the possible places of articulation that are used in the languages of the world have been defined so far (in this course). The traditional terms which are used for all the places of articulation are not just names for particular locations (on the roof of the mouth).

Voicing is an important feature of speech sounds which is used not only as a feature but also as a distinction for describing sounds. There are sounds (such as vowels, nasals and approximants i.e., sonorants) which are usually voiced (though in particular contexts the voicing may be weak or absent).

For Example: for the sound [d]:

☐ Place of articulation = alveolar. (The narrowing of the vocal tract involves the tongue tip and the alveolar ridge.)

☐ Manner of articulation = oral stop. (The narrowing is complete -- the tongue is completely blocking off airflow through the mouth. ...)

☐ Voicing = voiced.

Q. Grouping of consonants with numbers 5marks

Consonants:

- Plosives p b t d k g 6
- Nasals m n ŋ 3
- Fricatives f v θ ð s z ʃ ʒ h 9
- Affricates tʃ dʒ 2
- Approximants l r w j 4

Q. What are Articulators:

We can only produce speech sounds by moving parts of our articulators (body parts), and this is done by the contraction of muscles. Most of the movements relevant to speech take place in the mouth and throat area (though we should not forget the activity in the chest for breath control), and parts of the mouth and throat area that we move when speaking. These are called articulators. In this branch of phonetics, we study the principal articulators (such as tongue, lips, lower jaw and the teeth, velum or soft palate, uvula and larynx) and other processes related to speech production. This includes the features of various sounds such as vowels and consonants and their specific properties including places and manners of articulation, phonation, etc.

Articulators for the following:

Labial sound is produced by lips.

Dorsal by the back of the tongue.

Coronal from three positions of the tongue including, laminal (blade of the tongue) , apical (tip of the tongue) , Sub-apical (the under part of the blade of the tongue).

Q.American and BBC accent in context of rhotic accent:

This term is used to describe some varieties of English (e.g., American) pronunciation in which the /r/ phoneme is found in all its phonological contexts. Remember that in the BBC accent of English, /r/ is only found before vowels (as in 'red' /red/, 'around' /əraʊnd/), but never before consonants or before a pause. In rhotic (e.g., some American) accents, on the other hand, /r/ may occur before consonants (as in 'cart' /ka:rt/) and before a pause (as in 'car' /kɑ:r/). While the BBC accent is non-rhotic, many accents of the British Isles are rhotic (including most of the south and west of England, much of Wales, and all of Scotland and Ireland).

Similarly, most speakers of American English speak with a rhotic accent, but there are non-rhotic areas including the Boston area, lower-class New York and the Deep South. From English language teaching point of view, foreign learners encounter a lot of difficulty in learning not to

pronounce /r/ in the wrong places.

Q. accent variation (3 marks)

- Difference in phonological inventories. Compare /strʌt/ vs. /strʊt/.
- Difference in phonetic features such as pronouncing /t/ as [ʔ].
- Phonological distribution e.g., rhotic vs. non-rhotic accents
- Lexical distribution e.g., /θ/ and /ð/ differences (as England and Wales have /ð/ and Scottish accents have /θ/).

Q. No. Of syllables of exist., pronunciation and enough 3 marks

Ex-ist 2

Pro-nun-ci-a-tion 5

En-ough 2

Q. 5H and L stand for in break indicates 2 marks imp

One of the most recently developed methods is called the 'tone and break indices' (ToBI). This method is used for the description of intonation (H/L) representing pitch changes and showing pitch accent – phrase accent and boundary by showing tone and break indices. This is based on describing High (H) and Low (L) pitches in a sentence representing pitch changes and showing pitch accent – phrase accent and boundary (of the phrase).

Q.Explain pitch variables.

Intonation' is pitch variation at sentence level and it could be described in terms of intonational phrase. In order to describe intonation, we need to analyze the role of a 'stressed syllable' (i.e., pitch change of one syllable) which further creates a major change 'tonic accent' (marked with an asterisk) to create the pitch peak in an intonational phrase. Similarly, a formal category of intonational phrase is also sometimes recognized (an utterance span dominated by boundary tones). As the part of suprasegmental phonology, intonation refers to the distinctive use of patterns of pitch, or melody. There are several ways for analyzing intonation. In some approaches, pitch patterns are described as contours and analyzed in terms of levels of pitch as pitch phonemes and morphemes; in others, the patterns are described as tone units or tone groups, analyzed further as contrasts of nuclear tone, tonicity, etc

Q.Write a note on intonation 5

Intonation as a suprasegmental feature performs several functions in a language. Its most important function is to act as a signal of grammatical structure (e.g., creating patterns to distinguish among grammatical categories), where it performs a role similar to punctuation (in written language). It may furnish far more contrasts (for conveying meaning). Intonation also gives an idea about the syntactic boundaries (sentence, clause and phrase level boundaries). It also provides the contrast between some grammatical structures (such as questions and statements). For example, the change in meaning illustrated by 'Are you asking me or telling me?' is regularly signaled by a contrast between rising and falling pitch. Note the role of intonation in sentences like 'He's going, isn't he?' (= I'm asking you) opposed to 'He's going, isn't he!' (= I'm telling you) (These examples are given by Peter Roach).

The role of intonation in the communication is quite important as it also conveys personal attitude (e.g., sarcasm, puzzlement, anger, etc.). Finally, it can signal contrasts in pitch along with other prosodic and paralinguistic features. It can also bring variation in meaning and can prove an important signal of the social background of the speakers.

Stress Rules:

Two types of stress are important. Firstly, stress on a syllable within a word (the lexical stress) which changes the grammatical category of a word (compare insult with insult) and also change meaning among other things. On the other hand, stress on a word or certain words in a phrase or sentence. This type of stress (on word(s) within sentences) is called sentence level or prosodic stress. This is, in fact, a change or modification to word level stress in a sentence which is basically a change of 'beat' on certain words in a sentence. Remember that, we create 'rhythm' in spoken language on the basis of stress.

Q. Lexical stress

Lexical stress is basically related to the primary stress applied at syllable level (when only one syllable is stressed) that has the ability to change the meaning and the grammatical category of a word as in the case of 'IMport' (noun) and 'imPORT' (verb).

Q. Compound words, long words in detail.

In linguistics, a compound is a lexeme (less precisely, a word or sign) that consists of more than one stem. Compounding, composition or nominal composition is the process of word formation that creates compound lexemes. That is, in familiar terms, compounding occurs when two or more words or signs are joined to make one longer word or sign. The meaning of the compound may be similar to or different from the meaning of its components in isolation. The component stems of a compound may be of the same part of speech—as in the case of the English word footpath, composed of the two nouns foot and path—or they may belong to different parts of speech, as in the case of the Eng word blackbird, composed of the adjective black and the noun bird.

With very few exceptions, English compound words are stressed on their first component stem.

In long **words (such as minimization), one syllable** receives primary stress while other (one or more than one syllable) has the secondary stress. Secondary stress is just for better pronunciation (not changing the meaning). Another division is made between lexical stress (phonemic in nature) and sentence level (emphatic) stress.

A homograph is a group (usually a pair) of words that are spelled the same way, and may or may not be pronounced the same way, although the difference in pronunciation is often just a shift in the accented syllable.

There is a whole class of homographs that end in -ate, usually with one being a verb and the other being a noun or an adjective related to it. For example:

- "Advocate" can be pronounced with a long "a" sound and mean "to speak or write in support of"
- "Advocate" can also be pronounced with a short "a" sound and refer to a person who supports or pleads the cause of another.

Bilabial: This sound is made with two lips (for example, /p/ and /b/). The lips come together for these sounds.

Labiodental: This sound is made when the lower lip is raised to touch the upper front teeth (for example, /f/ and /v/).

Dental: This sound is made with the tongue tip or blade and upper front teeth. For example, say the words thigh, thy and you will find the first sound in each of these words to be dental.

Alveolar: This sound is made with the tongue tip or blade and the alveolar ridge. You may pronounce words such as tie, die, nigh, sigh, zeal, lie using the tip of the tongue or the blade of the tongue for the first sound in each of these words (which are alveolar sounds).

Retroflex: This sound is produced when the tongue tip curls against the back of the alveolar ridge. Many speakers of English do not use retroflex sounds at all but it is a common sound in Pakistani languages such as Urdu, Sindhi, Pashto, Balochi and Punjabi.

Palato-alveolar: This sound is produced with the tongue blade and the back of the alveolar ridge (for example, first sound in each of words like shy, she, show)

Palatal: This sound is produced with front of the tongue and the hard palate (such as the first sound in 'yes'.

Velar: This sound is produced with back of the tongue and the soft palate (such as /k/ and /g/).

A tone language Although 'tone' as a word has a very wide range of meanings and uses in ordinary languages, its meaning in phonetics and phonology is quite restricted. It refers to an identifiable movement or level of pitch that is used in a linguistically contrastive way. In typical 'tone' languages, the linguistic function of tone is to change the meaning of a word. For example, in Mandarin (Chinese), /ma/ said with high pitch means 'mother' while /ma/ spoken on a low rising tone means 'hemp'. In other (non-tonal) languages, tone forms the central part of intonation, and the difference between, for example, a rising and a falling tone on a particular word may cause a different interpretation of the sentence in which it occurs. In the case of tone languages, it is usual to identify tones as being a property of individual syllables, whereas an intonational tone may be spread over many syllables. Similarly, in the analysis of English intonation, tone refers to one of

the pitch possibilities for the tonic (or nuclear) syllable, a set usually including fall, rise, fall-rise and rise-fall, though others are also suggested by various experts.

Q Vowel is basically a continuum. Explain continuum in the given statement.

Continuum: Continuum is a (try gliding from one vowel to another -from /æ/ in had to /i/ as in he (try to stay as long as possible on the sounds between them).

Vowel is basically a continuum because there is a possibility that we can articulate that vowel not exactly, not accurately from that particular point and we cannot be able to describe that particular vowel from that particular corner but these are approximations. These approximations are important and the sound is a continuum, it's not the clear-cut, one specific aim which is achieved or one specific target which is achieved rather it's a continuum. Changes from one vowel sound to another are the allophones of vowels.

Overlapping Gestures

Speech sounds are produced with the movements of the articulators and sounds are often described in terms of their articulatory gestures. Sounds are not static; they are movements. If we say words twice, dwindle, quick and analyze the rounding of your lips for sound /w/. In each of these three words, the first stop sounds are slightly rounded (when they are clustered with /w/ - /tw/, /dw/ and /kw/ respectively). In these words, there is a tendency for gestures to overlap with those for adjacent sounds (stops with bilabial /w/ in this case). This kind of gestural overlapping, in which a second gesture starts during the first gesture, is sometimes also called anticipatory co-articulation.

The articulatory gesture for the approximant sound is anticipated during the articulatory gesture for the stop. The same kind of anticipatory overlapping takes place in words like tree and dream (compare them with tea and deem). In phonology, overlapping refers to the possibility when a phone may be assigned to more than one phoneme (phonemic overlapping). As a notion, overlapping was introduced by American structural linguists in the 1940s.

Q. Give some examples of speech sounds where velaric airstream is involved. IMP

The 'velaric' airstream mechanism involves an airflow produced by a movement of the back of the tongue against the velum. Under this mechanism, speech sounds are made by sucking the air (see airstream). This sucking mechanism is used first by babies for feeding and by adult humans in later stages of life for such things as sucking liquid through a straw or drawing smoke from a cigarette (using the back of the tongue against the velum). The basic mechanism for this is the air-tight closure between the back of the tongue and the soft palate, just as if the tongue is then retracted, and the pressure in the oral cavity is lowered and suction takes place. Consonants produced with this mechanism are called clicks. These sounds have a distinctive role in some languages such as Zulu. In English, they may be heard in the 'tut tut' (or tsk tsk) sounds, and in a few other contexts.

Rules for English Consonant Allophones (ECA) IMP

The rules for English consonantal allophones are summarized here in this topic. Remember that it is just a list of a set of formal statements simply describing the behavior of a language. These are not the kind of prescriptive grammar rules that people are expected to abide by.

1. Consonants are longer when at the end of a phrase (e.g., bib, did, don and nod).
2. Voiceless stops (e.g., p, t, k) are aspirated when they are syllable initial (pip, test, kick).
3. Voiced obstruents (b, d, g, v, ð, z, ʒ) are voiced only when they occur at the end of an utterance or before a voiceless sound.
4. Voiced stops (b, d, g) and affricate (dʒ) are voiceless when they are syllable initial (except when immediately preceded by a voiced sound – compare a day with this day).
5. Voiceless stops (p, t, k) are unaspirated after /s/ in words such as spew, stew and skew.

IPA:

Established in 1886, the International Phonetic Association (IPA) is a forum for teachers and practitioners who were inspired by the idea of using phonetics to improve the teaching of the spoken language to foreign learners. As well as laying the foundations for the modern science of phonetics, the IPA had a revolutionary impact on the language classroom in the early decades of its existence, where previously the concentration had been on proficiency in the written form of the

language being learned. The association is still a major international learned society, though the crusading spirit of the pronunciation teachers of the early part of the century is not so evident nowadays

Q.What grey areas denoted in IPA chart.

Areas of darker gray represent impossible articulations.

the grammatical words—are very rarely emphasized in the connected speech, and thus their normal pronunciation in the connected speech is quite different from their citation speech forms. But remember that, as with other words, closed-class words show a strong form, which occurs when the word is emphasized, as in sentences such as: He wanted pie and ice cream, not pie or ice cream. There is also a weak form which occurs when the word is in an unstressed position.

Aspects of Connected Speech:

Overlapping is a common feature of connected speech. In a rapid (connected) speech, overlapping between sounds results in the positions of some parts of the vocal tract being influenced quite a lot by neighboring targets thus creating various forms (allophones) for one phoneme. Keeping in mind this possibility of overlapping, a phoneme is an abstract unit that may be realized in several different ways (forms - allophones).

Similarly, the differences between various allophones of a phoneme can be explained in terms of targets and overlapping gestures. The difference between two different forms of /k/ sound (as the [k] in key and the [k] in caw) may be simply due to their overlapping with different vowels in context. Similarly, the alveolar [n] in ten is different than the dental [n̪] in tenth. Both are the result of aiming at the same target, but in tenth, the realization of the phoneme /n/ is influenced by the dental target required for the following sound.

Co-articulation An articulation is an articulatory phenomenon which involves a simultaneous overlapping of more than one points in the vocal tract as in the co-ordinate stops (/pk/, /bg/, /pt/ and /bd/) often heard in some languages from West Africa. Co-articulation, at times, leads to create a difference between two allophones (which is actually the result of aiming at different targets). In experimental phonetics, co- articulation is a way of finding out how the brain controls the production of speech sounds. When we speak, many muscles are active at the same time and sometimes the brain tries to make them do things at a time that they are not capable of. For example, in the word mum the vowel phoneme is one that is normally pronounced with the soft palate (velum) raised to prevent the escape of air through the nose, while the two m phonemes must have the soft palate lowered. Thus, the soft palate cannot be possibly raised so quickly, and, as a result, the vowel is most likely to be pronounced with the soft palate (velum) still lowered – making the vowel a nasalised one

Explain the grammatical and content words

The grammatical words—are very rarely emphasized in the connected speech, and thus their normal pronunciation in the connected speech is quite different from their citation speech forms. But remember that, as with other words, closed-class words show a strong form, which occurs when the word is emphasized, as in sentences such as: He wanted pie and ice cream, not pie or ice cream. There is also a weak form which occurs when the word is in an unstressed position.

Tongue Height.

Refers to the position of the tongue in reference to the roof of the mouth when making vowel sounds. Tongue height can be high, mid, or low. Notice that the tongue is in the middle of the oral cavity when producing the phoneme /o/ (as in no).

Objectives

1. There are ... vowels in English ... (20)
2. The pre-generative era is .. first, second , third or fourth.
3. English is a timed language . (Stressed)
4. The North wind and the sun is a folktale taken from (Arne Thompson)
5. /ɛ:/ and /a:/ are the examples of ... (Tense)
6. The glottis is defined as the space (vocal folds)

7. Pure vowel are 12
 8. Optionality stemmed down from generative phonology
 9. IPA chart for all languages
 10. Phonology is a part of Linguistics.
 11. Chinese /ma/ low rising tone. Hemp
 12. Dictionary which tell both American and British pronunciation...????
 13. Lower overtones F1 tells us about the height of the vowel
 14. /b/ is labeled as bilabial sound
 15. some experts divide pitch patterns into small constituent units such as "pitch phonemes" and "pitch morphemes"
 16. When the vocal folds are apart the resultant sound are called Breathy or murmuring sound.
- Fill the following blanks.
- "A vowel is longest in a **open** syllable, next longest in a syllable closed by a **voiced** consonant and shortest in a syllable closed by a **voiceless** consonant.(eg. Compare , sea, seed, seat or sight, side, site)