ENG-507 MIDS SOLVED PAST PAPERS

Objectives:

1. Stress is a term used in phonetics to refer to the degree of force (for making it louder and longer) used in producing a syllable.

2. In typical 'tone' languages, the linguistic function of tone is to change the meaning of a word.

3. In Mandarin (Chinese), /˝ma/ said with high pitch means 'mother' while /˘ma/ spoken on a low rising tone means 'hemp'.

4. In the American structuralist tradition, four such degrees are usually distinguished, and analyzed as stress phonemes.

5. Diphthong is a vowel where there is a single (perceptual) noticeable change in quality during a syllable.

6. The term 'stop' is used in the phonetic classification of consonant sounds on the basis of their manner of articulation

7. Intonation refers (very) simply to the variations in the pitch of a speaker's voice (f0).

8. In order to describe intonation, we need to analyze the role of a 'stressed Syllable'.

9. 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.

10. Citation speech is a form where a word is in its complete form.

11. There are 20 vowels in English ..

12. English is a Stressed timed language .

13. The North wind and the sun is a folktale taken from (Arne Thompson)

14. /€:/ and /a:/ are the examples of ... (Tense)

15. The glottis is defined as the space (vocal folds)

16. In English /p t k/ at the beginning of a syllable are aspirated

17. Phoneme is a group of sound having the ability to change meaning.

18. It is primarily dependent on the use of instrumental techniques of investigation such as

Praat software.

19. Flap is front and back movement of tongue tip at the underside of tongue with curling Behind.

Subjective:

Q. No. of vowel and consonant 3

There are 44 sounds in English RP (BBC) accent. Out of them, 20 are vowels which, in turn, are further divided into pure vowels and diphthongs. Pure vowels or monophthongs are 12 out of which 5 are long and 7 are short vowels.

Q. VOT:

Voice Onset Time (VOT) is a term used in phonetics referring to the point in time at which vocalfold 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. 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.

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.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. 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. write down 3 dipthongs and use them in words(3 marks)

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) English diphthongs are divided into two categories: centering (which end with 'ə' sound) and closing (which end with either 'ɪ' or 'ʊ' sounds respectively). Examples for these diphthongs are given below:

• ɪə peer

• eə pair

• ʊə poor

• eɪ bay

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 Scottishaccents have /θ/).

Q. what vocal fold assume in breathing sounds(3 marks)

The position of larynx (also known as sound box) and the vocal folds inside larynx are very important in the description of speech sounds. 'Phonation' is a technical term used for describing the forms of vibration of the vocal folds (or vocal cords) and the process is more commonly known as voicing. The glottis (which is defined as the space between the vocal folds) can assume a number of shapes (such as voiced, voiceless, murmuring and creaky positions). The most common positions of vocal folds are used to describe the two possible features of consonant sounds by considering sounds to be either voiceless with the vocal folds apart (such as /p/ and /t/) or voiced with the folds nearly together so that they will vibrate when air passes between them (such as /b/ and /g/). These glottal states are important in the description of speech sounds in particular languages and in the description of pathological voices. The process of phonation is also known as 'voicing' and laryngeal activity.

Q. Examples of Velaric airstream mechanism (5)

In addition to pulmonic and glottalic airstream mechanisms, there is a third possibility involving 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.

Q. Vowel position at Center, end, start:

One of the major problems describing vowels is the difficulty to describe precisely the tongue position (during the production of a vowel) as people cannot determine appropriately for themselves where their tongues are. So it is important for you to remember that the terms we are using (for the description of vowels) are simply labels that describe how vowels sound in relation to one another. They are not absolute descriptions of the position of the body of the tongue. The reason is that it is perfectly possible to make a vowel sound that is halfway between a high-vowel and a mid-vowel and even it is possible to make a vowel at any specified distance between any two other vowels. This is because of the fact that vowels form a continuum (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). The result you can see is the difference in vowel quality.

Q. pronouncing /u/ tongue position is: (Important)

vowel /ʊ/ is often pronounced with spread lips in this variety of English. It is like the back of the tongue is raised for an /u/ vowel sound creating a secondary (articulation) constriction.

Q. Difference between diphthongS and monophthongs.
Or Q. Write a note on pure vowels? 5

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). There had been a point of difference whether a diphthong should be treated as a single phoneme (in its own right) or it is a combination of two phonemes. On the basis of phonetic classification of vowel sounds and manners of articulation, we need to compare diphthongs with monophthongs and triphthongs; - a monophthong is a vowel with no qualitative change in it – a diphthong is a vowel where there is a single (perceptual) noticeable change in quality during a syllable (as in English words beer, time and loud) - a triphthong is a vowel where two such changes can be heard.

Q.Write any three types of Phonotations.

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. write the ENG consonant sound of number ?

English sounds are briefly introduced here:
• Plosives 6
• Nasals 3
• Fricatives 9
• Affricates 2
• Approximants 4

Q. Dental sounds

These 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 [t̪d̪]. However, there is a great deal of individual variation in the pronunciation of these consonants in all these languages.

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

Q. Write any three accents of language from the four/ accent difference. (Important)

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

Q. criteria for describing eng consonant 5 marks

There are 24 consonants in the RP accent of Eng. These consonants are described in terms of (1) voicing, (2) manners and (3) places of articulation. There certain parameters for determining the manners of articulation such as stricture, laterality & 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).

Q. American and British Vowels (IMP)

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 BE and as the students of phonetics and phonology we should try to explore these difference.

Q. No. Of syllables of exist.,pronunciation and enough3 marks

1. Ex-ist
2 Pro-nun-ci-a-tion
3En-ough

Q. EXPLAIN the features (Voicing, MoA and PoA)

- Place of articulation = alveolar. The narrowing of the vocal tract involves the tongue tip &the alveolar ridge
- Manner of articulation = oral stop. (The narrowing is complete -- the tongue is completely blocking off airflow through the mouth. ...
- Voicing = voiced. articulation, phonation, etc.

Q. H and L stand for in break indicates 2 marks (Important)

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.
Or
Q.Write a note on intonation 5

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

Q.Stress Rules: (Important)

2 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. Homograph

It is a group (usually a pair) of words that are spelled the same way, & may or may not be pronounced the same way, although the differencein pronution 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. E.g : "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.

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 (1 or more than 1 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 stress.

Q. Articulatory gestures.

- Bilabial: This sound is made with two lips (e.g, /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 (e.g, /f/ & /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/).

Q. A tone language

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 /ˇma/ spoken on a low rising tone means ‘hemp’. In other (non-tonal) languages, tone forms the central part of intonation, and the diff bt, eg, 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. 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 lang such as Zulu. In English, they may be heard in the 'tut tut' (or tsk tsk) Sounds, and in a few other contexts.

Q. What is 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. 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.

Q. 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.

Q. What is Tap, flap and Trill?

Tap is up and down movement of the top of the tip of tongue. For example, pronouncing the middle sound in word 'pity' with typical American accent [ɾ]. It is very brief and is produced by a sharp upward throw of the tongue blade. In this sound, tongue makes a single tap Against the alveolar ridge. Flap Flap is front and back movement of tongue tip at the underside of tongue with curling behind. It is found in abundance in Indo-Aryan (IA) languages [ɽ]. Typical flap sounds found in IA languages is a retroflex sound and the examples are [ɽ], [ɖ] and [ɳ].
Trill (sometimes called roll), In the production of trill the articulator is set in motion by the current of air [r]. It is a typical sound of Scottish English as in words like 'rye' and 'row'.

Q. Three components or factors effecting the difference in sounds

1. intensity,
2. pitch and
3. tone.

Q. 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.

Q. To produce speech sounds there is requirements for production of speech enlist three?

Pulmonic airstream mechanism is the most commonly used mechanism for speech productionby human beings. Almost all the sounds we produce in speaking are created with the help of air compressed by the lungs. The adjective used for this lung-created airstream is 'pulmonic':
the pulmonic airstream may be ingressive (as in breathing in) but for speaking practically, it is always egressive (speech sounds are produced while pushing the air out). In order to understand dthis mechanism, we'll have to analyze the human respiratory system. Under this system, therespiratory muscles set the air in motion. Lungs – the sponge like tissues – contained within aircage called the diaphragm – contract and enlarge lung cavity thus creating the egressive – ingressive actions. This mechanism set an air flow for speech production and human beingsproduce speech sounds while pushing the air out.

Q. feel, father, pute describe vowels with tongue position

A low vowel (such as a in "father" or "had") is produced with the tongue relatively flat.

You may also be able to feel the [i] as somewhat further forward

Q. Importance of transcription:

Transcription is an important tool in phonetics and phonology. Based on a specific set ofsymbols, transcription is the writing down of a spoken utterance. In its original meaning, theimplied word is converted from one representation (e.g. written text) into another (e.g. phoneticsymbols). Transcription exercises are a long-established exercise for teaching phonetics. There are many different types of transcription: the most fundamental division that can be made isbetween phonemic (broad) and phonetic (narrow) transcription. In the case of the former, theonly symbols that may be used are those which represent one of the phonemes of the language,and extra symbols are excluded. In a phonetic transcription the transcriber may use the fullrange of phonetic symbols if these are required; a narrow phonetic transcription is one whichcarries a lot of fine detail about the precise phonetic quality of sounds, while a broad phonetictranscription gives a more limited amount of phonetic information. Transcription is animportant part of the present course based on the objective to understand the sound-symbolcorrespondence. Transcription is a useful technique for highlighting the phonemes of a languageduring documentation and description.

Q. Write a note on veleraization?

In co-articulation, velarisation is a process whereby a constriction in the vocal tract is added to the primary constriction which gives a consonant its place of articulation. More specifically, velarisation is an example of secondary articulation. In the case of English “dark /l/”, the /l/ phoneme is produced with its usual primary constriction in the alveolar region (try speaking this sound). It is like the back of the tongue is raised for an /u/ vowel sound creating a secondary (articulation) constriction. There are more examples, life vs. file (/laɪf/ /faɪɬ/) clap vs. talc (/klæp/ /tæɬk/). It is a very common feature of Arabic and is quite important and interesting for acoustic analysis.

Q. long and Short Vowel 5 Marks

Long vowels (transcribed with the diacritic [:]) occur in some languages. A contrast of length (between short and long) is also sometimes encountered with vowels. Length is an important feature in many ways in speech: in English and most other languages, stressed syllables tend to be longer than unstressed. Some languages (such as English) have phonemic differences between long and short sounds, contrasting short vowels (such as i, e, ɒ, ʊ, ə) with long vowels (iːɑː ɔː uː ɜː). Similarly, the most important feature of a diphthong is that it contains a glide fromone vowel quality to another one. BBC English contains a large number of diphthongs: there are three ending in /i/ (ei, ai, ɔi), two ending in /ʊ/ (əʊ, aʊ) and three ending in /ə/ (iə, eə, ʊə).
Short vowels: ɪ e æ ʌ ɒ ʊ ə ɘ
pit pet pat putt pot put another
Long vowels: iː ɑː ɔːuː ɜː
Bean barn born boon burn

Q. How Wavesform are helpful in Consonants identification... 5 Marks

As part of the acoustics of consonants, we need to note down a few distinctive points about their waveforms. Although the places of articulation are not obvious in any waveform yet the differences in some of the principal manners of articulation—stop, nasal, fricative, and approximant—are usually apparent. Furthermore, as already pointed out, we can also see the differences between voiced and voiceless sounds. The difference between a vowel and a consonant in the waveform is very easy to understand. For the vowel sounds, the lips open and the amplitude gets larger. We can also observe the time duration of a sound from its waveform (vowels are longer than consonants). In case of a stop sound, the closure and the burst are also easy to judge. Similarly, we can also note down the voicing bar for a 'voiced' sound producing small voicing vibrations instead of a flat line. A fricative with a more nearly random waveform pattern can also be judged from its
waveform.

Q. Write 2 sentences with closed words where that closed words can be used as Stressed... 5 Marks

The citation speech/conversational speech difference is particularly noticeable for the closed class of words. This class of words such as determiners (a, an, the), conjunctions (and, or), andprepositions (of, in, with)—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 astrong 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.

Q. 3 process of air steam mechanism.3 marks

'Airstream' is a term used in phonetics for a physiological process which provides a source of energy capable of being used in speech sound production. There are various forms and mechanisms for initiating the air move. The most common is when the air is moved inwards or outwards by initiating air movement involving 'lungs' (the pulmonic airstream), which is used for producing the majority of human speech sounds. The 'glottalic' airstream mechanism, as its name suggests, uses the movement of the glottis - the aperture between the vocal folds as the source of energy. The third one is the 'velaric' airstream mechanism which involves an airflow produced by a movement of the back of the tongue against the velum.

Q. How many short vowels and give examples of 6 words in which they are used. 3marks

There are 44 sounds in English RP (BBC) accent. Out of them, 20 are vowels which, in turn, are further divided into pure vowels and diphthongs. Pure vowels or monophthongs are 12 out of which 5 are long and 7 are short vowels. Examples for these vowel sounds are given
here:

Short vowels
• ɪ pit • e pet • æ pat • ʌ putt • ɒpot • ʊ put • ə another

Q. What is lexical stress and give characteristics of stressed syllable.5 marks:

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). 'Stress timed languages' is a very general phrase used in phonetics to characterize the pronunciation of languages displaying a particular type of rhythmic pattern that is opposed to that of syllable-timed languages. In stress-timed languages, it is claimed that the stressed syllables recur at regular intervals of time (stress-timing) regardless of the number of intervening unstressed syllables as in English. This characteristic is sometimes also referred to as 'isochronism', or isochrony. However, it is clear that this regularity is the case only under certain conditions, and the extent to which the tendency towards regularity in English is similar to that in, say, other Germanic languages remains unclear. In short, the division among the syllables is made on the basis of stress and unstressed patterns. In such languages, stress is realized both at word and sentence levels approximately changing the rhythmic patterns (particularly at sentence level).

Q. Underline the plosive in given words
• p pin
• b bin
• t tin
• d din
• k kin
• g gum

Q. Features of connected speech. 5 marks

This type of transcription is required when a spoken language is analyzed as a continuous sequence, as in normal utterances and conversations. It is now realized by experts that important changes happen to sound units when they are used in a connected speech e.g., and becoming /n/ in such phrases as boys and girls. One more example is /n/ becoming /m/ in the phrase green bus. The features of connected speech are: assimilation, rhythm, stress, elision, linking, tone and intonation.

Q. Nasalization proceed(5 marks)

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). Remember that there is a difference between a 'nasal' and a 'nasalised' sound. A sound is nasalized when

the nasality comes from other sounds (such as above where the vowel would be referred to as 'nasalized' vowel) whereas the 'nasal' term suggests that the nasality is an essential identifying feature of a sound (in Urdu there are many nasal sounds). A 'nasalized consonant', on the other hand, is a consonant which, though normally oral, is articulated in a nasal manner because of some adjacent (nasal) sound.

Q. Aspect of connected speech(3):

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.

Q. Intrinsic and extrinsic phonems

Extrinsic allophone: which cannot be explained simply by reference to phonetic features of the environment in which it appearsIntrinsic allophone: which may be explained principally by reference to phonetic features of the environment in which occurs.

Q. Main 5 focuses of phonology. 5 marks

It focuses on the organization of sounds by studying speech patterns (e.g., phonological rules within a specific language). The key words for describing phonology are 'distribution' and 'patterning' related to speech. Phonologists may look into questions like – why there is a difference in the plurals of cat and dog; the former ends with an 's' sound, whereas the latter ends with the 'z' sound. Phonetics, on the other hand, is the study of actual process of sound making. Phonetics has been derived from the Greek word 'phone' meaning sound or voice. It covers the domain of speech production and its transmission and reception. The sounds made by us when we talk are studied through different branches of phonetics like acoustic phonetics, auditory phonetics and articulatory phonetics.

Q. Three stages of history of phonology. 3 marks

Usually in phonetics we are only interested in sounds that are used in meaningful speech, and phoneticians are interested in discovering the range and variety of sounds used this way in all the known languages of the world. This is sometimes known as linguistic phonetics. Thirdly,

there has always been a need for agreed conventions for using phonetic symbols that represent speech sounds; the International Phonetic Association has played a very important role in this regard. Finally, the auditory aspect of speech is very important: the ear is capable of making fine discrimination between different sounds, so much so that sometimes it is not possible to define in articulatory terms precisely what the difference is (but we can still hear the difference).

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

1. Acoustic phonetics is related to the study of physical attributes of sounds produced by the vocal tract.
2. 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).
3. It is primarily dependent on the use of instrumental techniques of investigation (such as Praat software), particularly electronics, and some grounding in physics and mathematics is a prerequisite for advanced study of this subject.
4. Its importance to the phonetician is that acoustic analysis can provide a clear, objective datum for the investigation of speech – the physical 'facts' of speech sounds (such as duration, formants F1, F2 and F3, etc.).
5. Thus, acoustic evidence is often referred to when one wants to support an analysis being made in articulatory or auditory phonetic terms.]

Q. Acoustic analysis

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. 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 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.

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.

Q. 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. Write any three accents of language from the four.

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

Q.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.[1] 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.Why we study superasegmental?

'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. 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. Majorsuprasegmental 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).
Phonological studies can be divided into two fields: segmental phonology and suprasegmental phonology. Suprasegmental features have beenextensively explored in the recent decades and many theories have been constituted related to the application and description of these features.

Q.Fotris and lenis consonants

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. 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.

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 articulation.

Q. What happened to vot when stops at after vowel. Or negative VOT or positive VOT

There are three possible types of VOTbased 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. 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. In phonetic terms, each vowel has a number of properties that distinguish it from other vowels. These include (firstly) the shape of the lips, which maybe rounded (as for /u:/ vowel), neutral (as for /ə/) or spread (as in /i:/ vowel). Secondly, the front, the middle or the back of the tongue may be raised, giving different vowel qualities: the BBC vowel in ('cat') is a front vowel, while the ɑ: in 'cart' is a back vowel. Thirdly, the tongue (and the lower jaw) may be raised close to the roof of the mouth, or the tongue may be left low in the mouth with the jaw comparatively open. Lip rounding may also be important in the description of vowel sounds in some languages.

Q. VOT in Nawajo 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. /i/, /u/, /a/, /ae/, describe the position of tongue.3

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

Q.What grey areas denoted in IPA chart.

Areas of darker gray represent impossible articulations.

Q. Write 2 sentences with closed words where that closed words can be used as Stressed... 5 Marks

The citation speech/conversational speech difference is particularly noticeable for the closed class of words. This class of words such as determiners (a, an, the), conjunctions (and, or), and prepositions (of, in, with)—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:
1. He wanted pie and ice cream, not pie or ice cream.
2. There is also a weak form which occurs when the word is in an unstressed position.

Q. Aims And objective of studying phonetics and phonology:

Among other things, expertise in phonetics and phonology enable researchers to describe spoken languages which are not yet documented thus proving very important for language documentation and language description. Similarly, it is an important field for typological studies and for cross linguistic comparisons and generalizations in terms of sound systems (languages) and their classifications. understand how human sound is produced;know the physical properties of human sounds.

Q. Discuss Phonemes 3 Marks

A phoneme is the smallest meaningful unit of sound (therefore, a smallest unit in phonology) in a language and this meaningful unit of sound is one that will change one word into another word. For example, the difference in both 'white' and 'right' (ignore spellings here, focus on sounds) is the difference of sounds (w – r) which are phonemes and they have the ability to change meaning. Similarly, take another example of 'cat' vs. 'bat' (k – b). Linguists have also defined phoneme as a group or class of sound events having common patterns of articulation. If phoneme is a group then allophones are the group members. Let us discuss now allophone.

Q. What does the statement "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. 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: (IMPORTANT)

1. 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.
2. 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).

3. 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..
4. ormation in the speech signal.

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 andshortest in a syllable closed by a/ an voiceless consonant.(eg. Compare , sea, seed, seat or sight, side,site)

Q. Write any three types of Phonotations. Important

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. Differ phonetics and phonology

Phonetics:

It is the study of actual process of sound making. Phonetics has been derived from the Greek word ‘phone’ meaning sound or voice. It covers the domain of speech production and its transmission and reception. The sounds made by us when we talk are studied through different branches of phonetics like acoustic phonetics, auditory phonetics and articulatory phonetics.

Phonogy:
phonology is the study of how sounds are organized in individual lang. It focuses on the organization of sounds by studying speech patterns.The key words for describing phonology are ‘distribution’ and ‘patterning’ related to speech. Phonologists may look into questions like – why there is a difference in the plurals of cat and dog; the former ends with an ‘s’ sound, whereas the latter ends with the ‘z’ sound.

Q. Define 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.

Q. Differentiate diphthong and triphthong.

A diphthong is a vowel where there is a single (perceptual) noticeable change in quality during a Syllable (as in English words beer, time and loud) A triphthong is a vowel where two such changes can be Heard.

Q. Write a note on Nasals.

Nasals are the consonantal sounds in which the air escapes through the nose (the soft palate i.e., velum is lowered). For nasal sounds, two articulatory actions are necessary; (1) the soft palate (or velum) must be lowered to allow air to escape through nose, and (2) a closure must be made in the oral tract (in order to prevent air from escaping through it). This closure may be created at any place in the oral cavity (such as at lips position, for bilabial /m/ sound; at alveolar, for /n/ or at soft palate (velum) for /ŋ/ sound. English has these three nasal sounds (m, n and ŋ) which are very commonly found. All of them are nasal stops and they are voiced sounds.

Q. Write a note on Approximants.

The consonants which make very little obstruction to the airflow are called approximants. These have traditionally been divided into two main groups: semivowels (such as /w/ in ‘wet’ and /j/ in ‘yet’) which are very similar to close vowels ([u] and [i]) but are produced as a rapid glide; and liquid sounds which have an identifiable constriction of the airflow (but they do not obstruct sufficiently to produce fricative noise, compression or the diversion of airflow) - this category includes lateral sound i.e., /l/ as in ‘lead’ and /r/ sound as in ‘read’. Approximant sounds; therefore, are not fricative and never contain interruptions to the flow of air.
The BBC accent of English has four approximant sounds:
Bilabial: /w/ as in whack
Alveolar: /l/ and /r/ as in lack and rack
Palatal: /j/ as in yak
Sometimes, experts need to differentiate among various kinds of /r/ approximant (tap, flap and trill).

Q. Differentiate nasal and nasalized.

Remember that there is a difference between a ‘nasal’ and a ‘nasalised’ sound. A sound is

nasalized when the nasality comes from other sounds (such as above where the vowel would be referred to as a ‘nasalized’ vowel) whereas the ‘nasal’ term suggests that the nasality is an essential identifying feature of a sound (in Urdu there are many nasal sounds). A ‘nasalized consonant’, on the other hand, is a consonant which, though normally oral, is articulated in a nasal manner because of some adjacent (nasal) sound.

Q. Describe different forms of the vowel.

A vowel may take one out of three forms: stressed, unstressed and reduced. Most of the time a vowel is completely pronounced when it is in a stressed syllable but the same vowel is different in quality (allophonic form) when it takes place in an unstressed syllable, and, of course, it is reduced to another form when it is in a reduced syllable. Remember that in most cases, various reduced vowels are taking the shape of a schwa vowel /ə/. The symbol /ə/ may be used to show many types of vowels with a central, reduced vowel quality. A vowel in an unstressed syllable does not necessarily have a completely reduced quality.

Q. Describe the degrees of stress.

In the American structuralist tradition, four such degrees are usually distinguished, and analyzed as stress phonemes, namely (from strongest to weakest) (1) 'primary', (2) 'secondary', (3) 'tertiary' and (4) 'weak'. These contrasts are, however, demonstrable only on words in isolation as in the compound elevator operator. In phonological analysis, most of the experts only distinguish among three degrees of stress namely 'primary', 'secondary' and 'weak' or 'unstressed' (e.g., ɪg.ˌzæm.ɪ.ˈneɪ.ʃən).