PAPER 6 (DESCRIPTIVE LINGUISTICS)
Explain the concept of phonemes. How are allophones grouped in such phonemes.

Most linguists, until recently at least, have regarded the phonemes as one of the basic units of a language. The term phoneme was first used by Kruzenski in late 1870s. Some linguists like Bloomfield and Daniel Jones have described phonemes in purely physical terms. Others like Sapir have preferred psychological definition. Some regard phonemes only as abstract fictitious units and argue that these are not phonemes but allophones that exist in reality. Thus, we do not find the definition of phonemes in the same way.

A phoneme can be defined as "the smallest contrastive linguistic unit which may bring about change in meaning". For example, the series of words - pin, bin, chin, gin, fin, kin, din, sin, shin, tin, min, win, etc. supplies us with twelve words which are distinguished simply by a change in the first consonantal element of the second sequence. The change in phonological unit may be anywhere in the word which can bring about a change in the meaning of the word. For example

b + in	bi + n
p + in	pi + n
t + in	ti + n
s + in	si + n
w + in	wi + n

These elements of contrastive significance or phonemes are symbolized as /p, b, t, d, k, t , d, dz, , w/. Similarly in the series of words hat, heat, hit, hat, heart, etc, the elements of contrastive significance are /a , i:, i, , :/.

The phoneme according to Bloomfield is a minimum unit of contrastive sound feature. Now we can define phoneme as the minimum meaningless unit of a word. Minimal, for example, pin=p + i + n. Here the sound /p/ cannot be broken into parts because it is the minimal unit of the word 'pin'. This minimal unit p or i or n has separately no meaning. Distinctive for example in English.

K------kull, kh----kh l.

In taking example, this feature is called aspiration in English which cannot change the meaning. Here we get variation but not distinct variation.

Thus the precise definition of phoneme has been the subject of much discussion among linguists and there are two major points of view. The first is the "classification theory" developed by Daniel Jones which considers the phoneme to be a group or family of related sounds. For example, /p/ in English consists of [p], [ph] or [u] consists of [u], /u:/ etc. The second or "distinctive theory" developed by N. S. Trubetzkoy and the Prague school considers a phoneme to be a bundle of distinctive features. For example /p/ in English is considered to be made up of bilabial + stop + voiceless.

Members of phonemes are often called phones or allophones. Any objective speech sound, considered as a physical event and without regard as to how it fits into the structure of a given language, is a 'phone'. Hence a 'phone' in phonology is the smallest possible segment of sound abstracted from the continuum of speech. It is a common practice to write phone symbols between square brackets and phonemes symbols between oblique brackets. Thus in English [t] and [th] are allophones of the phoneme /t/. Variations of phoneme which cannot change the meaning is called allophones. For

example, ph, kh, th, etc. All these voices are called aspiration in English. It does not bring about a change in meaning but only changes the initial position in a word.

Some sounds, the native speaker thinks, are the same while others are different. The linguist has to figure out what sounds are grouped together as the same; what it is that they all have in common among themselves and how dissimilar are they to other groups of sounds in informant's speech and what criteria the native speaker uses to tell sounds apart. Environment of phoneme tells us about the different positions of phoneme. For example, k sound in 'keel', 'calm' and 'cool' differs. In 'keel' it is in the front in the mouth; in 'calm' it is a little in the center and in 'cool' further back in the mouth. The native speaker does not differentiate these sounds in everybody speech in the sense that he is not aware of the physical differences. He thinks that these sounds are the members of k class or are all k. In other words, for the phoneme /k/, central -k, retracted /k/ and fronted /k/ are all allophones.

Hence an allophone is a speech sound which is one of the number of variants of a phoneme. For example, the 't' sound in 'take' is different from the 't' sound in 'stake'. Such a variant can be either in complementary distribution or in free variation. The occurrence of particular allophone may be determined by its environment or it may be in free-variation. For example, in the word 'little' the initial 'l' sound is different from the final 'l' sound. These two sounds are known as clear [l] and dark [l]. Clear and dark l's are allophones of the same phoneme /l/. From the phonetic point of view, therefore, these are two quite distinct sounds for /l/ in English and once we have learnt to listen for the difference, we can distinguish one from another quite readily.

If we now consider these sounds from the phonological point of view, we reach to a different conclusion: the two sounds being seen as fundamentally the same since they have a single job to do. For example, 't' sound in words like "take" and "stake" are different phonetically because of the nature of phonetic environment in which they occur, but phonologically they are all the same and strictly speaking, allophones of the same phoneme /t/. The [t] of "take" is clearly aspirated, whereas the [t] of stake is unaspirated because plosive sounds preceded by [s] are never aspirated in English. The phoneme /t/, therefore, consists of several phonetically different sounds or numbers and may be logically regarded as a class.

In short, as far as the distribution is concerned, we have four kinds:

Distribution

Contrastive   Non-contrastive

Complementary   Free variation

Any sound or sub-class of sound which is in complementary distribution with another so that the two together constitute a single phoneme is called allophone of the same phoneme. A phoneme is, therefore, a class of allophones. Of the two criteria for classing of allophones into phoneme, the first, the phonetic similarity can be applied (at least in part) without reference to the actual use of the sounds in any specific language. Thus the voiced and corresponding voiceless can be said to be phonetically similar irrespective of language in which they occur. This does not make them the same phoneme; both criteria must be met. However, similarity is a relative matter. Sounds

cannot be said to be either similar or dissimilar but only more or less similar. How two sounds must fit the definition can only be determined by the consideration of a phonemic system of the language as a whole. If some phonemes are found to have both voiced and voiceless allophones, then another pair of voiced and voiceless sounds are certainly sufficiently similar to qualify. If, on the other hand, voiced and voiceless sounds generally contrast, the chances are that the another pair of voiced and voiceless are heard as different in the language under consideration. This relativity introduces a certain measure of subjectivity into the approach.

The second criteria for classing allophones into phonemes ' non-contrastive distribution' has no meaning except in particular language or dialect. Therefore sounds are grouped into a single class or phoneme if they can be shown to be phonetically similar (containing some sort of articulatory feature in common) and in complementary distribution (not occurring in the same environment and so not distinct). The condition of phonetic similarity keep [t] and [th], [p] and [ph] in the same phonemes respectively as against the equally non-contrastive grouping of [t] and [ph], [p] and [th].