consist in observing and fixing the movements and positions of one's own or other people's organs of speech in the production of various speech sounds, as well as in analyzing and comparing one's own articulatory and auditory impressions.

Objective (instrumental) methods of phonetic analysis appeared in the second half of the XXth century with the development of such sciences as physiology and physics. They involve the use of various instrumental techniques like palatography, laryngoscopy, X-ray photography, electromyography, etc. The use of the data of instrumental analysis gives a detailed study of different phonetic phenomena and articulatory processes. It's quite clear that many instruments, which are used in analyzing different phonetic phenomena, derive from other sciences. For instance, the articulatory parameters of speech are observed and fixed with the help of articulograph. The spectra of speech sounds are investigated by means of sound spectrograph. The pitch component of intonation is studied with the help of intonograph.

Nowadays practically no area of practical phonetic investigation can do without the combination of subjective and objective methods when the results of instrumental analysis supplement those available from introspective analysis.

## Seminar 1

- 1. What is your idea of phonetics?
- 2. What is the role of phonetics in language teaching?
- 3. What is meant by phonetics as a science?
- 4. Prove that phonetics is a basic branch of linguistics.
- 5. How is phonetics connected with other branches of linguistics?
- 6. What is the object of phonetics on the expression and on the content level?
- 7. Explain the connection of phonetics with non-linguistic sciences.
- 8. What interdisciplinary subjects does phonetics overlap with?
- 9. Name the 6 stages of speech chain production.

- 10. Comment on the peculiarities of the stages made on the part of the speaker.
- 11. Comment on the peculiarities of the stages made on the part of the listener
- 12. What are the levels of speech production? How do they correlate with the aspects of sound phenomena?
- 13. Characterize the articulatory aspect of phonetics. List the organs of speech that are included in the:
  - a) power mechanism;
  - b) vibration mechanism;
  - c) resonator mechanism;
  - d) obstruction mechanism.
- 14. Discuss the object of the acoustic aspect of phonetics. What are its main ideas?
- 15. What does the auditory aspect of phonetics concern?
- 16. What is the aim of the functional aspect of phonetics?
- 17. Speak about phonetics as a system. What subdivisions does it include?
- 18. Name the segmental and suprasegmental units of phonetics.
- 19. Give the definition of phonetics.
- 20. What components of the phonetic system do you know? Characterize each of them.
- 21. Speak about the main branches of phonetics defined according to the object of the study. What is implied by the term 'phonology'?
- 22. State the difference between general and special phonetics.
- 23. Discuss the peculiarities of historical and contemporary phonetics.
- 24. What are the objects and methods of theoretical and practical phonetics?
- 25. What methods of phonetic analysis do you know? Give examples of each of them.