ANNOTATION

of report on a pre-diploma practice of a 2th year student, of group BT-71mp
specialty 162 - Biotechnologies and Bioengineering
specialization Industrial Biotechnology
Angelika Ravlyuk
"Streptomycin production"

The report on a pre-diploma practice containes 40 pages of printed text. The report consists of a preface, five chapters, conclusion and list of references, two appendices and contains 4 drawings and 1 table.

The description of streptomycin production is given in the report on a pre-diploma practice – the antibiotic of the aminoglycosides group which is used as antimicrobial agent for systemic use.

The relevance of the study of antibiotic technology is substantiated in the preface, the goal of practice and its main tasks are set.

The first part of the report devoted to the information about the PJSC «Kyivmedpreparat», the information about company's history is given, trends in its development and the existing product portfolio.

The second part of the report presents data on streptomycin, its structure, biological action, and methods of identification.

A general description of streptomycin sulfate is provided in the third part of the report.

The fourth part of the report is devoted to the description of the production of streptomycin, including biosynthesis, isolation and purification.

The aspects of occupational safety and safety of life are presented in the fifth part.

In Annexes A and B, respectively, are given the technological and apparatus schemes for the production of streptomycin powder for preparation of a solution for injection.

As a result of the pre-diploma practice, the following tasks were solved: modern domestic pharmaceutical production was considered, provided characteristic of the streptomycin, the antibiotic technology of streptomycin sulfate was described, and the relative technological and apparatus schemes were presented.

According to the results of the pre-diploma practice, the following conclusions were drawn: PJSC «Kyivmedpreparat» is a modern pharmaceutical enterprise, which has been producing antimicrobial agents for almost 70 years, is constantly improving and developing. Antibiotics are one of the main biotechnological products by volume of production. In the process of producing streptomycin, the output of the final product is influenced by all the technological steps from the selection of the components of the nutrient medium to the choice of the method of purifying the preparation and its drying, so the technology requires increased accuracy and attention.

KEY WORDS: streptomycin sulfate, tuberculosis, aminoglycosides, bactericidal action, industrial cultivation, adsorption by an activated charcoal.