

## The evaluation of knowledge NUCLEIC ACIDS and PROTEIN SYNTHESIS

1. Purine and pyrimidine bases – numbers of atoms in the ring, structures
2. Purine derivatives – xanthine, uric acid
3. Structures of nucleosides and nucleotides
4. Functions of nucleotides (ATP, GTP)
5. Types of RNAs, structures, functions
6. Structure of DNA
7. The rule of complementarity of nitrogen bases
8. Features of the genetic code
9. Replication of DNA – the role of polymerases and ligases
10. Transcription – the role of polymerases
11. Biosynthesis of protein – factors taking part in initiation, elongation and termination
12. Regulation of gene expression
13. Role of antibiotics in the inhibition of protein synthesis
14. Types of mutations and their consequences
15. Methods of fractionation of biological material: electrophoresis, gas chromatography, liquid chromatography (gel chromatography)

