

1. Please write down the cell types present after conjugation between cells with different F factors. (30 points)
 - a. $F^+ \times F^-$
 - b. $Hfr \times F^-$
 - c. $F' \times F^-$
2. Please write down the complete word of the abbreviation “DNA”. (10 points)
3. Please illustrate (1) the structure of nucleotides in DNA (2) the meaning of “antiparallel” and “complementary” in the structure of the DNA double-helix (60 points).