Vaccines

Read Chapter 23.5

Fill in the blanks

1. The purpose of a vaccine is to stimulate an (active or passive) _____ immune response without causing _____.
2. The first vaccine was based on the cross-reactive immunity where exposure to _____ could reduce the severity of _____.
3. State whether the following is describing active or passive and natural or artificial immunity.
    a. Transfer of antibodies to baby through mother's milk _____
    b. Getting sick and making memory cells _____
    c. Receiving antibodies for temporary immunity _____
    d. Stimulating the immune system through vaccination _____
4. Match the following descriptions with the correct vaccine: **live-attenuated, killed, toxoid, DNA technology, mRNA technology**
    a. Adjuvant is required to stimulate the immune system in all vaccines except _____
    b. A vector is used to transfer a gene from a virus rather than using a whole virus _____
    c. Made from inactivated toxins _____
    d. Made from ribonucleic acid sequences to a viral antigen that is contained within lipid nanoparticle
    e. Made from whole viruses that are weakened _____
    f. Made from viruses that are whole but completely inactivated _____
5. The purpose of adjuvant is to (increase or decrease) _____ immune reactivity.
6. One possible downside to vaccines that contain adjuvant is the exacerbation or triggering of _____

7. Match the following examples with the correct vaccine **live-attenuated, killed, toxoid, DNA technology, mRNA technology**

    a. Influenza _____

    b. Hepatitis C _____

    c. Measles _____

    d. Mumps _____

    e. Pertussis _____

    f. Covid-19 _____ or _____

    g. Tetanus _____