1) What is the mass of a Photon? The photon does not have mass.

2) What is the size of a quark? Quarks size varies from two, three MeV/c squared to 137,07 GeV/c squared.

3) What is the difference between the electrical charge and color charge? Color charge is responsible for the strong force acting on quarks and anti-quarks. Color changes as quarks exchange gluons. The charge is the quantity of matter responsible for electrical phenomena carried by a particle.

4) Explain the difference between a boson and a fermion. Boson has an integer number if spin. It has multiple versions of itself in the same quantum state. Fermion has only one state at a given moment. They have half-integer spin.

5) Describe what type of particle is both a boson and hadron. Give an example. Proton. It is held by a strong force and more than one cannot be at the same place.

6) Explain the purpose of a bubble chamber. The bubble chamber is an apparatus designed to make the tracks of ionizing particles visible as a row of bubbles in a liquid.

7) What are leptons made of? Leptons are made of charged particles.

8) Name two leptons and to baryons. Protons and neutrons are baryons. Electrons and muons are leptons.

9) Explain what quantities are conserved at each vertex of a Feynman diagram. Charge, Baryon number, Lepton number.

10) Explain what an exchange particle is. Include its function and provide an example. Exchange particle is changing a color of quarks when they exchange it. Exchange particle is a gluon.