masses.

Statement Analysis:

Statement 1	Statement 2
Incorrect	**Incorrect**
Standard Model of Physics does not consider all fundamental forces. It includes electromagnetic, weak, and strong interactions, and does not include gravitational force.	As this theory leaves many phenomena unexplained, such as baryon asymmetry, so it falls short of being a complete theory of particle interaction.

Q.3) Which of the following is incorrect about Higgs Boson?

a) It is caused by Quantum excitation.
b) Large Hadron Collider is experiment related to Higgs Boson.
c) It is a subatomic particle.
d) Electric Charge on it is +1 e.

Q.3) Solution (d)

Explanation – Electric Charge on Higgs Boson is 0 e and not + 1 e.

Basic Information:

The Higgs boson is an **elementary particle** in the Standard Model of particle physics produced **by the quantum excitation of the Higgs field**. It is named after physicist Peter Higgs who in 1964 along with five other scientists proposed the Higgs mechanism to explain why some particles have mass. This mechanism required that a spineless particle known as a boson should exist with properties as described by the Higgs Mechanism theory.

A subatomic particle with the expected properties was discovered in 2012 by the ATLAS and CMS experiments at the Large Hadron Collider (LHC) at CERN near Geneva, Switzerland. The new particle was subsequently confirmed to match the expected properties of a Higgs boson.

Higgs Boson is an elementary particle. An elementary or fundamental particle is a subatomic particle with no substructure, i.e. it is not composed of other particles.