

NAME _____
PERIOD _____

QUIZ#41D
STANDARD MODEL

For each of the following multiple choice questions select ALL correct answers!

- ___1. How many quarks are contained in each Meson?
A. 1 B. 8 C. 6 D. 4 E. 3 F. 2 G. 0
- ___2. How many quarks are contained in each Lepton?
A. 1 B. 8 C. 6 D. 4 E. 3 F. 2 G. 0
- ___3. Which of the following forces is responsible for the bonding between nucleons?
A. Weak B. Electromagnetic C. Gravitational D. Strong E. Friction
- ___4. Which of the following particles is a hadron?
A. p^+ B. e^- C. ν_e D. γ E. ν_μ F. ν_τ
- ___5. What are muons made from?
A. 1 up quark + 1 down quark B. 1 up quark + 1 strange quark C. 1 strange quark + 1 down quark
D. 2 down quarks + 1 up quark E. Muons are fundamental F. 1 boson + 1 fermion
- ___6. All baryons are made up from:
A. 3 quarks B. 1 quark + 1 anti-quark C. 1 lepton + 1 boson D. 3 leptons E. 1 lepton + 1 anti-lepton
F. Baryons are fundamental
- ___7. Which of the following particles is a charged force carrier?
A. Tauon B. Electron C. Proton D. W^+ E. Z^0 F. Top quark
- ___8. Which of the following bosons is responsible for communicating the Strong force?
A. Photon B. W^+ C. Gluon D. Z^0 E. W^- F. Graviton
- ___9. Which of the following particles are very likely to make it completely through all of the detectors surrounding a high energy particle collision?
A. Neutrinos B. Muons C. Electrons D. Gamma rays E. Baryons F. Mesons
- ___10. Which of the following particles is NOT a force carrier?
A. W^- B. e^- C. Muon D. Gluon E. ν_τ F. Photons
- ___11. Particles that follow the Pauli Exclusion Principle are known as:
A. Fermions B. Protons C. Bosons D. Baryons E. Leptons F. Mesons
- ___12. Each of the following particles is made from quarks EXCEPT:
A. Proton B. π meson C. Muon D. Neutron E. Electron F. Gluon
- ___13. Which of the following is NOT one of the fundamental quarks?
A. Strange B. Top C. Weird D. Charm E. Up F. Bottom
- ___14. What is the name of the particle that is as yet undiscovered but which is believed to be responsible for the property of mass?
A. μ meson B. Tauon C. Higgs Boson D. Graviton E. Neutrino F. Gluon
- ___15. Which of the following particles qualify as leptons?
A. Gluons B. Baryons C. Positrons D. Mesons E. Protons F. Electrons