



Some Questions for Fun – Question 1

From all we know now, what is the fastest possible speed in the Universe?

- A). 1 m/s
- B). speed of light (3.00×10^8 m/s)**
- C). There is no limit
- D). Approximately 10^{100} m/s
- E). Scientists are not sure



Question 2

What can we say about the force of gravity acting on an astronaut on the International Space Station?

- A). It is about 10% weaker than the force of gravity on the surface of the Earth.**
- B). It is zero.
- C). It is about 100 times weaker than the force of gravity on the Earth.
- D). It is about 10 times stronger than on the surface of the Earth
- E). Outside of the Earth's atmosphere it does not make sense to talk about gravity.



Question 3

What is the best guess of the age of the Universe?

A). 1000 years

B). 3×10^8 years

C). 13.7 billion years

D). 10^{500} years

E). Scientists are not sure



Question 4

What is the size of the smallest object we can “see” with an electron microscope?

- A). 1 m (approximate height of a 5th grader)
- B). 10^{-6} m (size of objects in a cell)
- C). 10^{-9} m (size of individual atoms)**
- D). 10^{-14} m (size of atomic nuclei)
- E). 10^{-35} m (theoretical size of fundamental strings)



Question 5

What will happen to our Sun in about 5 billion years?

- A). Nothing, it will always be the same
- B). It will explode
- C). It will become a red giant**
- D). It will become a red dwarf star
- E). It will turn into a black hole



Question 6

What is acceleration?

- A). Rate of change of velocity**
- B). Rate of change of position
- C). Rate of change of momentum
- D). Rate of change of force
- E). Rate of change of strings



Question 7

How can you tell if something is accelerating (non zero acceleration)?

- A). Its position is changing
- B). Its mass is changing
- C). Its velocity is changing**
- D). Its position is constant
- E). Its velocity is constant



Question 8

What fraction of the Universe is made of stuff like us?

A). 27%

B). 54%

C). Nearly 100%

D). 1%

E). 4%



Question 9

How many forces are there in nature?

A). 1

B). 2

C). 3

D). 4

E). 5



Question 10

How many quarks are in a proton?

A). 0

B). 1

C). 2

D). 3

E). 4