

University Hamma Lakhder

English exam

First year science of the matter

2017/2018

Time : 01H30mn

F.Name :

L. Name :

G : ...

Nuclear physics is the field of physics that studies atomic nuclei and their constituents and interactions. Other forms of nuclear matter are also studied.

Nuclear physics should not be confused with atomic physics which studied the atom as a whole, including its electrons.

Discoveries in nuclear physics have led to applications in many fields ; this includes nuclear power, nuclear weapons, nuclear medicine and magnetic imaging, industrials and agricultural isotopes, ion implantation in materials engineering and radio carbon dating in geology and archeology.

Particle physics evolved out of nuclear physics and the two fields are typically taught in close association.

Nuclear astrophysics ; the application of nuclear physics to astrophysics, is crucial in explaining the inner working of stars and the origin of the chemical elements.

Questions

Task01 :

1- Answer the questions according to the text : (3pts)

a- what does the nuclear physics studies ?

Nuclear physics studies atomic nuclei and their constituents and interactions.

b- Which applications does the nuclear physics includes ?

Nuclear physics applies all of nuclear power, nuclear weapons, nuclear medicine and magnetic imaging, industrials and agricultural isotopes, ion implantation in materials engineering and radio carbon dating in geology and archeology.

c-Does the particle physics and the nuclear physics taught in close association ?

Yes, they taught in close association.

2-Are the following sentences True or False ? (3pts)

- a- Nuclear physics studies the atom as a part.(False).
b- The application that includes in nuclear physics is only the nuclear power(False).
c- The application of nuclear physics to astrophysics is important for explaining the deeper working of stars (True).

3- To which words refer the underlying pronouns (2pts)

Their :Atomic nuclei Its :Atom

4- Link each definitions with their appropriate terms (8pts) :

- 1- A measure used to describe whether a liquid is acids or basic. a- Amper
2-Electromagnetic radiation of high frequency and therefore. b-Nuclear physics
high energy c-Celsius
3-The total number of protons and neutrons in an atomic nucleus. d- Ice point
4- A unit that describe the rate flow of electricity. e-PH
5- A scale and unit of measurement for temperature also f-Boiling point
called centigrade. g-Gamma-ray
6-The field of physical that studies the constituents and. h-Mass number
interactions of atomic nuclei
7- Physical process that result in the phase transaction
of substance from liquid to solid.
8-The temperature in which the substance starts to boil.

1	2	3	4	5	6	7	8
E	g	h	A	C	b	d	F

Task02 : translate as a coherent paragraph from English to Arabic the following

(Nuclear physics is the field of physics.....its electrons) **(4pts)**

الفيزياء النووية هو مجال يدرس الأنوية الذرية ، مكوناتها وتفاعلاتها، كما يدرس أيضا أشكال أخرى للمواد النووية.
كما لا يجب الخلط بين الفيزياء النووية والفيزياء الذرية التي تدرس الذرة ككل بما في ذلك الإلكترونات.

Good luck