

The University of Jordan
Nuclear Reactor Theory 0302750

Level Test

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- *This is not intended to be a marked exam.*
 - *The purpose is to collect information about your background.*
 - *You are NOT required to write your name, but you can do so if you wish.*
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1- List all nuclear and/or radiation physics courses you have previously studied. Mention the level of the course (third year, fourth year, graduate, *etc....*). What are the main titles that you can remember from each course?

2- Write down whatever you know about nuclear fission.

- 3- The radius of the ${}^X\text{Ge}$ nucleus is measured to be twice the radius of ${}^9\text{Be}$. From this information, how many nucleons (X) are there in the ${}^X\text{Ge}$ nucleus?
- 4- What is the difference between a fissile and a fissionable material?
- 5- What is the main difference between the interaction of neutrons and charged particles with matter?