



**Oral Exam for 4<sup>th</sup> year students (Second Semester 2019/2020)**

اسم المقرر	كيمياء غير عضوية (419ك)
Course name	Inorganic chemistry (419 Chem)/ <i>f</i> -block elements
Lecturer	Dr. Shadia Abdel Aleem Elsayed
Level	Chem/Biochem, Chem/Microbiology and Chem/Botany

**1. Comment on the following:**

1.  $\text{La}(\text{OH})_3$  is more basic than  $\text{Lu}(\text{OH})_3$
2.  $\text{Eu}^{2+}$  and  $\text{Yb}^{2+}$  are good reducing agent in solution
3. Actinides are lewis acids

**2. Discuss the following:**

1. Actinide contraction
2. Lanthanide hydrides
3. Extraction of lanthanides from Bastnaesite

*Dr. Shadia A. Elsayed*