

**Question 1) A silver sphere of radius 1 cm and work function 4.7 eV is suspended from an insulating thread in free space. It is under continuous illumination of 200 nm wavelength light. As photoelectrons are emitted, the sphere gets charged and acquires a potential. The maximum number of photoelectrons emitted from the sphere is  $A \times 10^2$  (where  $1 < A < 10$ ). The value of 'Z' is?**

**Answer: 7**