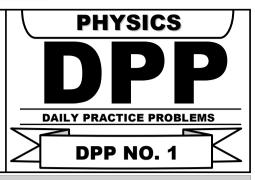
TARGET: NEET (UG) 2024

Course: SARANSH (Youtube Live CRASH COURSE)



PHYSICS: NUCLEAR PHYSICS

DPP No · 1

DPP No. : 1				
1.	The stable nucleus that (1) $_3 \text{Li}^7$	has a radius 1/3 that of (2) ₂ He ⁴	Os ¹⁸⁹ is - (3) ₅ B ¹⁰	(4) ₆ C ¹²
2.	Masses of nucleus, neutron and protons are M, neutrons and protons, then (1) $M = (A - Z) m_n + Zm_p$ (3) $M < (A - Z) m_n + Zm_p$		n_m and m_p respectively. If nucleus has been divided in to (2) $M = Zm_n + (A - Z) m_p$ (4) $M > (A - Z)m_n + Zm_p$	
3.	As the mass number A increases, the binding energy per nucleon in a nucleus (1) increases (2) decreases (3) remains the same (4) varies in a way that depends on the actual value of A.			
4.	An α -particle is bombal particle is a (1) neutron	rded on ¹⁴ N. As a result (2) proton	, a ¹⁷ O nucleus is formed (3) electronq	d and a particle is emitted. This (4) positron
5.	How much uranium is re(1) 15 mg	equired per day in a nuc (2) 1.05 gm	lear reactor of power cap (3) 105 gm	pacity of 1 MW (4) 10.5 kg
6.	Which of the following r (1) heavy water	materials is used for cont (2) graphite	rolling the fission (3) cadmium	(4) Berillium oxide
7.	Atomic reactor is based on (1) controlled chain reaction (3) nuclear fission		(2) uncontrolled chain reaction(4) nuclear fusion	
8.	Thermal neutron means (1) neutron being heated (2) the energy of these neutrons is equal to the energy of neutrons in a heated atom (3) these neutron have energy of a neutron in a nucleus has at normal temperature (4) such neutrons gather energy released in the fission process			
9.	The graph of ℓ n (R/R ₀) v (1) a straight line	versus ℓn A (R = radius (2) a parabola	of a nucleus and A = its (3) an ellipse	mass number) is (4) none of these
10.	Let F_{pp} , F_{pn} and F_{nn} denote the magnitudes of the nuclear force by a proton on a proton, by a proton on a neutron and by a neutron on a neutron respectively. When the separation is 1 fm, (1) $F_{pp} > F_{pn} = F_{nn}$ (2) $F_{pp} = F_{pn} = F_{nn}$ (3) $F_{pp} > F_{pn} > F_{nn}$ (4) $F_{pp} < F_{pn} = F_{nn}$			

Pre Medical Division: CG Tower-2, A-51(A) IPIA, Behind City Mall, Jhalawar Road, Kota (Raj.)-324005