

NEET STRUCTURE OF ATOM — ATOMIC NUMBER AND MASS NUMBER, ISOBARS AND ISOTOPES — PYQS

Max. Marks: 28

Questions: 7

Section A (MCQ) — 7 questions

Q.1 From the following pairs of ions which one is not an iso-electronic pair? [NEET (UG) 2021]

- (1) Fe^{2+} , Mn^{2+} (2) O^{2-} , F^{-}
 (3) Na^{+} , Mg^{2+} (4) Mn^{2+} , Fe^{3+}

Scan or tap for the full solution



Q.2 The number of protons, neutrons and electrons in $^{175}_{71}\text{Lu}$, respectively, are : [NEET (UG) 2020]

- (1) 104, 71 and 71 (2) 71, 71 and 104
 (3) 175, 104 and 71 (4) 71, 104 and 71

Scan or tap for the full solution



Q.3 Be^{2+} is isoelectronic with which of the following ions? [AIPMT 2014]

- (1) H^{+} (2) Li^{+} (3) Na^{+} (4) Mg^{2+}

Scan or tap for the full solution



Q.4 The radioactive isotope $^{60}_{27}\text{Co}$ which is used in the treatment of cancer can be made by (n, p) reaction. For this reaction the target nucleus is [AIPMT 2004]

- (1) $^{59}_{28}\text{Ni}$ (2) $^{59}_{27}\text{Co}$ (3) $^{60}_{28}\text{Ni}$ (4) $^{60}_{27}\text{Co}$

Scan or tap for the full solution



Q.5 $^{235}_{92}\text{U}$, nucleus absorbs a neutron and disintegrates into $^{139}_{54}\text{Xe}$, $^{94}_{38}\text{Sr}$ and x so, what will be product x? [AIPMT 2002]

- (1) 3-neutrons (2) 2-neutrons
 (3) α -particle (4) β -particle

Scan or tap for the full solution



Q.6 If a ^a_bX species emits first a positron, then two α and two β particles and in the last, one α is also emitted and gets converted to ^c_dY species. So correct relation is [AIPMT 2001]

- (1) $c = a - 12$, $d = b - 5$ (2) $c = a - 5$, $d = b - 1$
 (3) $c = a - 6$, $d = b - 0$ (4) $c = a - 4$, $d = b - 2$

Scan or tap for the full solution



Q.7 Isoelectronic species are [AIPMT 2000]

- (1) CO , CN^{-} , NO^{+} , C_2^{2-} (2) CO^{-} , CN , NO , C_2^{-}
 (3) CO^{+} , CN^{+} , NO^{-} , C_2 (4) CO , CN , NO , C_2

Scan or tap for the full solution



ANSWER KEY

Ques.	1	2	3	4	5	6	7				
Ans.	1	4	2	3	1	1	1				