DPP-02

Only one correct:

1. Which species carry the maximum charge?

(A) proton (B) β-particle (C) α-particle (D) Hydronium ion

2. The ratio between the neutrons present in nitrogen atom and silicon atoms with mass number 14&28 is

(A) 7: 3 (B) 3: 7 (C) 1: 2 (D) 1: 1

3. Two particles (X) & (Y) have the composition as shown in the table

Particle	No. of Electron	No. of neutron	No. of proton
(X)	18	16	16
(Y)	18	18	17

The particle (X) & (Y) are :-

(A) Isotopes of each other (B) Isobar of each

(C) Isotone of each other (D) Isoelectronic ions

4. Ozone is isoelectronic with

(A) NOF (B) NO_2^- (C) Both (A) & (B) (D) None of these

More than one may be correct :

5. Identify those which are isoelectronic with each other

(A) Na^+ (B) Mg^{2+} (C) Al^{+3} (D) O^{2-}

6. Identify the element which are isotones of ${}_8O^{16}$

(A) ${}_7N^{14}$ (B) ${}_7N^{15}$ (C) ${}_6C^{14}$ (D) ${}_9F^{17}$

7. N_2 is isoelectronic with

(A) CO (B) NO^+ (C) C_2^{2-} (D) CH_4

Integer Type :

8. An element has same number of neutrons as total number of protons or total number of electrons. What will be the neutron excess ?

9. If an element is represented by (A, Z) e.g. Ni_{28}^{60} can be written as (60,28) Among the following, find the total number of possible isotopic pairs formed by the given atoms.

(232,90); (228,88); (228,89); (228,90); (224,88); (216,84); (210,84); (213,84)

10. Find the number of elements which are isodiaphers of

${}_{92}U^{238}$ ${}_{90}Th^{234}$, ${}_{90}Th^{232}$, ${}_{93}Np^{237}$, ${}_{96}Cm^{247}$

ANSWER KEY

DPP-2

1.	(C)	**2.**	(C)	**3.**	(D)	**4.**	(C)	**5.**	(A,B,C,D)	**6.**	(B,C,D)
7.	(A, B, C)	**8.**	0	**9.**	5	**10.**	(1)				