

EXERCISE

MULTIPLE CHOICE QUESTIONS

- (1) Isotopes are atoms of same element with different
☒ (a) Atomic mass (b) Atomic number (c) Number protons (d) Number of electrons
- (2) One of the isotopes of uranium is $^{238}_{92}\text{U}$. The number of neutrons in this isotope is
 (a) 238 ☒ (b) 92 (c) 330 (d) 146
- (3) Which among the following radiations has more penetrating power?
 (a) A beta particle ☒ (b) A gamma ray
 (c) An alpha particle (d) All have the same penetrating capability
- (4) What happens to the atomic number of an element which emits 1 alpha particle?
 (a) Increases by 1 (b) Stays the same (c) decreases by 2 ☒ (d) decreases by 1
- (5) The half life of a certain isotope is 1 day. What is the quantity of the isotope after 2 days?
 (a) One half ☒ (b) One quarter (c) One eight (d) None of it
- (6) When Uranium (92 protons) ejects a beta particle, how many protons are left in the remaining nucleus?
 (a) 92 protons (b) 91 protons ☒ (c) 93 protons (d) 89 protons
- (7) Release of energy by the sun is due to
 (a) Nuclear fission ☒ (b) Nuclear fusion (c) Burnings of gases (d) Chemical reaction
- (8) When heavy nucleus splits into two lighter nuclei, the process would
☒ (a) Release nuclear energy (b) Absorb nuclear energy
 (c) Release chemical energy (d) Absorb chemical energy
- (9) The reason carbon dating works is that
 (a) Plants and animals are such strong emitters of carbon-14
☒ (b) After plant or animal dies, it stops taking in fresh carbon-14
 (c) There is so much non-radioactive carbon dioxide in the air
 (d) When a plant or an animal dies

ANSWER KEY

Q	Ans	Q	Ans	Q	Ans	Q	Ans	Q	Ans
1	a	3	b	5	b	7	b	9	b
2	b	4	d	6	c	8	a		