




WBBSE
MADHYAMIK



CHAPTER 7
ATOMIC
NUCLEUS

STUDY
MATERIAL


CONTENTS

- MCQ
- 1 MARKS QUESTIONS
- 2 MARKS QUESTIONS

C O N T E N T S

- MCQ (45 Questions) 03-45
- 1 MARKS (30 Questions)..... 20-23
- 2 MARKS (Questions)

This is free version. You can download Full version from our website. Click the links given at the end of this PDF.



MCQ

1. Which rays have the highest ionizing potential?

(a) a rays

(b) B rays

(c) Y rays

(d) Light rays

Ans. (a) rays.

2. The principle of the atomic bomb is -

(a) Electromagnetic effect

(b) Nuclear fusion

(c) Nuclear fission

(d) Chemical reactions

Ans. (c) Nuclear fission.

3. Which element is formed when a ray is emitted from uranium?

(a) Radium

(b) Calcium

(c) Thorium

(d) Plutonium

Ans. (c) Thorium.

4. Radium was extracted

(a) From graphite

(b) From Diamond

(c) From charcoal

(d) From pitch blend

Ans. (d) From pitch blend.

5. The charge radioactive rays were discovered by:

(a) By Prof. Currie

(b) by Madame Curie

(c) by Rutherford.

(d) by Henri Becquerel

Ans. (c) by Rutherford

6. α particles are-

- (a) Electron
- (b) Electromagnetic radiation
- (c) Helium nucleus
- (d) Only one proton

Ans. (c) Helium nucleus.

7. A nucleus of ${}_{92}\text{U}^{235}$ has several protons and neutrons respectively

- (a) 92, 235
- (b) 92, 143
- (c) 235, 92
- (d) 143, 92

Ans. (b) 92, 143

8. The disposal of emissions from nuclear power plants is a major problem. Which of the following is the reason for this?

- (a) Highly flammable
- (b) Extremely heavy
- (c) Odor
- (d) Highly radioactive

Ans. (d) Highly radioactive.

9. If the nucleus of a radioactive substance emits an α -particle, then

(a) Atomic number decreases. The mass number increases

(b) Atomic number increases, mass number decreases

(c) Both atomic number and mass number increase.

(d) Both the atomic number and mass number decrease.

Ans. (d) Both the atomic number and mass number decrease.

10. If a β particle is emitted from a radioactive substance, then the atomic number is-

(a) 1 unit folds

(b) increases by 1 unit.

(c) 2 units decrease

(d) increases by 2 units

Ans. (b) increases by 1 unit.

11. Which of the following is an uncontrolled chain reaction of nuclear fission?

(a) Nuclear reaction

(b) Atomic bomb

(c) Solar reaction

(d) None of these

Ans. (b) Atomic bomb.

12. Which of the following has a negative electric charge?

(a) In alpha rays

(b) In beta rays.

(c) In gamma rays

(d) None of these

Ans. (b) In beta rays.

13. Which of the following is positively charged?

(a) In alpha rays

(b) in beta rays

(c) In gamma rays

(d) None of these

Ans. (a) In alpha rays.

14. Which is the neutral one?

- (a) Alpha rays
- (b) Beta rays
- (c) Gamma rays
- (d) None of these

Ans. (c) Gamma rays.

15. Due to which phenomenon do stars radiate light energy?

- (a) Nuclear fusion
- (b) Nuclear fission
- (c) Nuclear reduction
- (d) None of these

Ans. (a) Nuclear fusion.

16. The speed equal to the speed of light is:

- (a) of alpha rays
- (b) of gamma rays
- (c) of beta rays
- (d) None of these

Ans. (b) of gamma rays.

17. What is the source of the excessive heat energy of stars?

(a) Nuclear fission

(b) Nuclear fusion

(c) Nuclear division

(d) None

Ans. (b) Nuclear fusion.



1 Marks

1. Which ray among B and Y rays has the worst effect on human beings?

Answer: Y-ray has the worst effect on humans.

2. What type of charge particles is the source of a ray?

Answer: Source of positive charge particles a. Kiran is

3. What type of charge is the source of the particles a. Is it Rashmi?

Answer: Radiation is the source of cation particles.

4. From which part of the atom do alpha particles come out?

Answer: From the nucleus of the atom.

5. What type of nuclear reaction takes place inside the Sun and the stars?

Answer: Nuclear fusion takes place in the Sun and the stars.

6. What is the effect on the free energy per nucleon when the mass number (Proton + Neutron) in the nucleus increases?

Answer: On the mass number of the nucleus, the value of binding energy first increases but then decreases.

7. Which rays emanating from radioactive elements cause maximum biological damage?

Answer: Y rays emanating from radioactive elements cause maximum biological damage.

8. When a particle is emitted from a radioactive element, its atomic number increases by one.

Answer: When a β particle is emitted from a radioactive element, its atomic number increases by one.

9. What is the unit of radioactivity?

Answer: Curie

10. What happens to the mass number of a gamma particle when it is emitted from a radioactive element?

Answer: There is no change in the atomic number and mass number of gamma rays when emitted.

11. In which form mass defect is released in nuclear fission?

Ans. Binding energy

12. Neutrons that initiate nuclear fission are called -

Ans. Thermal neutrons

13. What is the S. I. unit of radioactivity?

Ans. The SI unit of radioactivity is the Curie.

14. State whether the statement is true or false: 'Radioactivity' is the property of the nucleus of an atom.

Ans. Correct.

15. State whether the statement is true or false: Alpha ray never creates fluorescence on a photographic plate.

Ans. false

OUR NOTES

SI No	NOTES	CHARGES	LINK
1	CONCERN ABOUT OUR ENVIRONMENT	99/-	CLICK HERE
2	BEHAVIOUR OF GAS	99/-	CLICK HERE
3	CHEEMICAL CALCULATION	99/-	CLICK HERE
4	THERMAL PHEOMENON	99/-	CLICK HERE
5	LIGHT	99/-	CLICK HERE
6	CURRENT ELECTRICITY	99/-	CLICK HERE
7	RADIOACTIVITY	99/-	CLICK HERE
8	CHEMISTRY (ALL 6 CHAPTERS)	599/-	CLICK HERE

THANK YOU!



RAMADAN TUTORIAL



Click the Above links