



Padalsalai's Telegram Groups!

(தலைப்பிற்கு கீழே உள்ள லிங்கை கிளிக் செய்து குழுவில் இணையவும்!)

- **Padalsalai's NEWS - Group**
https://t.me/joinchat/NIfCqVRBNj9hhV4wu6_NqA
- **Padalsalai's Channel - Group**
<https://t.me/padasalaichannel>
- **Lesson Plan - Group**
<https://t.me/joinchat/NIfCqVWwo5iL-21gpzrXLw>
- **12th Standard - Group**
https://t.me/Padalsalai_12th
- **11th Standard - Group**
https://t.me/Padalsalai_11th
- **10th Standard - Group**
https://t.me/Padalsalai_10th
- **9th Standard - Group**
https://t.me/Padalsalai_9th
- **6th to 8th Standard - Group**
https://t.me/Padalsalai_6to8
- **1st to 5th Standard - Group**
https://t.me/Padalsalai_1to5
- **TET - Group**
https://t.me/Padalsalai_TET
- **PGTRB - Group**
https://t.me/Padalsalai_PGTRB
- **TNPSC - Group**
https://t.me/Padalsalai_TNPSC

- The atomic number of natural radioactive element is _____.
(**Greater than 83** / Less than 83 / Not defined / Atleast 82)
- The phenomenon of radioactivity was discovered by _____ in 1896.
(Marie Curie / Otto Hahn / **Henry Becquerel** / Strassman)
- ${}_{92}\text{U}^{235} + {}_0\text{n}^1 \rightarrow {}_{56}\text{Ba}^{141} + {}_{36}\text{Kr}^{92} + 3{}_0\text{n}^1 + \text{Energy}$. This fission reaction releases _____ MeV energy.
(2×10^5 / 2×10^4 / 2×10^3 / **2×10^2**)
- According to Einstein's mass energy relation $E = mc^2$, the difference in mass is converted into _____.
(**Energy** / Power / Force / Work)
- The fusion process can be carried out only at extremely high temperature of the order of _____.
($10^5 \text{ K to } 10^6 \text{ K}$ / $10^4 \text{ K to } 10^6 \text{ K}$ / **$10^7 \text{ K to } 10^9 \text{ K}$** / $10^4 \text{ K to } 10^5 \text{ K}$)
- The safe limit for receiving radiation is about _____ milli roentgen per week.
(1000 / 500 / **100** / 400)
- Pitchblende is an ore of _____.
(**Uranium** / Plutonium / Francium / Californium)
- There are _____ elements, have been identified as radioactive substances with atomic number less than 83.
(**2** / 5 / 29 / 6)
- There have been _____ radioactive substances discovered so far.
(21 / 26 / **29** / 2)
- Artificial Radioactivity was discovered by _____ in 1934.
(Marie Curie / **Irene Curie** / Otto Hahn / Strassman)
- The particle, which is used to induce the artificial disintegration is termed as _____ particle.
(injected / ejected / converted / **projectile**)
- ${}_4\text{Be}^9 + {}_2\text{He}^4 \longrightarrow \text{_____} + {}_0\text{n}^1$
(${}_6\text{C}^{13}$ / **${}_6\text{C}^{12}$** / ${}_7\text{N}^{13}$ / ${}_7\text{N}^{14}$)
- _____ is the traditional unit of radioactivity.
(Rontgen / **Curie** / Becquerel / All of these)
- _____ is defined as the quantity of one disintegration per second.
(Rontgen / Curie / **Becquerel** / Rutherford)
- _____ is the SI unit of radioactivity.
(Rontgen / Curie / **Becquerel** / Rutherford)
- _____ was discovered by Martin Klaproth.
(**Uranium** / Plutonium / Francium / Thorium)
- _____ rays are electromagnetic waves consisting of photons.
(Beta / Alpha / **Gamma** / All of these)

18. _____ rays travel with the speed of light.

(Beta / Alpha / Both / **Gamma**)

19. In _____ Soddy and Fajan framed the displacement laws

(**1913** / 1931 / 1934 / 1943)

20. ${}_{92}\text{U}^{238} \longrightarrow {}_{90}\text{Th}^{234} + {}_2\text{He}^4$ This reaction is an example for _____.

(β - decay / **α - decay** / γ - decay / None of these)

21. In _____ there is no change in the mass number of the daughter nucleus but the atomic number increases by one.

(**β - decay** / α - decay / γ - decay / All of these)

22. In a nuclear reaction, the element formed as the product nucleus is identified by the _____ of the resulting nucleus.

(Mass number / **No. of neutron** / Atomic no. / None of these)

23. In a _____ only the energy level of the nucleus changes.

(β - decay / α - decay / **γ - decay**)

24. In 1939, German Scientist Otto Hahn and F. Strassman discovered _____.

(Nuclear fusion / **Nuclear fission**)

25. In a _____ the atomic number and mass number of the radioactive nucleus remain the same.

(β - decay / α - decay / **γ - decay** / All of these)

26. Which of the following is 'fissile material'?

(**Pu^{239}** / Th^{232} / Pu^{240} / U^{238})

27. Uncontrolled chain reaction is used in the _____ to produce an explosion.

(**atom bomb** / hydrogen bomb / Both)

28. If the mass of the fissile material is less than the critical mass, it is termed as _____.

(super critical / **subcritical** / critical)

29. An atom bomb consists of a piece of fissile material whose mass is _____.

(super critical / **subcritical** / critical)

30. The nuclear bomb that was dropped in Hiroshima was called as _____.

(**Little boy** / Fat man)

31. Little Boy was a gun-type bomb which used a _____ core.

(Thorium / Plutonium / Th and U / **Uranium**)

32. Sun fuses about _____ metric tons of hydrogen each second.

(620×10^8 / **6.2×10^8** / 62×10^6 / 620)

33. Alpha rays emitted in _____ radio activity

(**Natural** / Artificial / Both / None of these)

34. Sun radiates about _____ kilo joule of energy per second.

(3.8×10^{26} / 3.8×10^{22} / **3.8×10^{23}** / 3.8×10^{25})

35. An isotope of _____ is used in many industries as a smoke detector.

(**Am^{241}** / Cf^{252} / Au^{198} / U^{238})

36. A moderator is used to slow down the high energy neutrons to provide slow neutrons.
(Water / Graphite / Helium / Air)
37. _____ reactors are used to convert nonfissionable materials into fissionable materials.
(Thermal / Fusion / Fast Breeders / Breeder)
38. AEC is known as _____.
(IGNOU / IGCAR / BARC / ICRP)
39. Nuclear power is the _____ largest source of power in India.
(second / third / first / fifth)
40. $1\text{eV} =$ _____ joule.
(1.625×10^{18} / 1.602×10^{-19} / 1.602×10^{19} / 1.625×10^{-18})
41. _____ is the source of light and heat energy in the Sun and other stars.
(Nuclear fusion / Nuclear fission)
42. The process of breaking up of a heavier nucleus into two smaller nuclei is called _____.
(Nuclear fusion / Nuclear fission)
43. The average energy released in each fission process is about _____ Joule.
(3.84×10^{-12} / 3.84×10^{-11} / 3.2×10^{-11} / 3.2×10^{-12})
44. The age of our Earth is nearly _____ years.
(4.45×10^9 / 4.54×10^9 / 5.45×10^8 / 5.54×10^9)
45. During a nuclear fission process, about _____ neutrons are released.
(2 to 3 / 4 to 5 / 4 to 6)
46. ${}_1\text{H}^2 + {}_1\text{H}^2 \longrightarrow$ _____ + Q (Energy)
(${}_{13}\text{Al}^{27}$ / ${}_6\text{C}^{12}$ / ${}_2\text{He}^4$ / ${}_2\text{H}^4$)
47. _____ is also called Thermonuclear reaction.
(Nuclear fusion / Nuclear fission)
48. _____ Can be performed at room temperature.
(Nuclear fusion / Nuclear fission)
49. _____ is a device used to detect the levels of exposure to an ionizing radiation.
(Voltmeter / Ammeter / Dosimeter / None of these)
50. _____ was the first nuclear reactor built in India and Asia.
(Apsara / Purnima / Cirus / Dhuruva)

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