

31. The unit of radioactivity curie is equal to

- A. 3.74×10^9 disintegration per sec B. 3.70×10^{10} disintegration per sec
C. 3.55×10^{10} disintegration per sec D. 3.60×10^{10} disintegration per sec

Answer: Option B

32. During fission process a large amount of

- A. heat energy is released B. nuclear energy is released
C. chemical energy is released D. light energy is released

Answer: Option B

33. In liquid metal fast breeder reactor the type of uranium used is

- A. ${}_{92}\text{U}235$ B. ${}_{92}\text{U}238$
C. ${}_{92}\text{U}234$ D. ${}_{92}\text{U}239$

Answer: Option B

34. Radioactive materials can be identified by measuring their

- A. hardness B. density
C. mass D. half life

Answer: Option D

35. If one or more of the neutrons emitted during fission can be used to build up further fission then the reaction is self sustained and is known as

- A. fission reaction B. fusion reaction
C. chain reaction D. chemical reaction

Answer: Option C

36. Pair production takes place in the vicinity of a heavy nucleus so that

- A. net energy is conserved B. net charge is conserved
C. net momentum is conserved D. all of the above

Answer: Option D

37. During an encounter with an atom α -particle knocks out

- A. protons B. electrons
C. neutrons D. nothing

Answer: Option B

38. The path of α -particle is

- A. rectilinear B. curved
C. zig-zag or erratic D. elliptical

Answer: Option c

39. Which of the following radiations are suitable for the treatment of an infection in the interior of the body ?

- A. α -rays B. β -rays
C. γ -rays D. X-rays

Answer: Option C

40. Various types of cancer are treated by

- A. cobalt-60 B. strontium-90
C. carbon-14 D. nickel-63

Answer: Option A