**[A] Nuclear Chemistry**:

1. 1H1, 1H2, 1H3 are the examples of …………
2. **Isotope**
3. Isobars
4. Isotones
5. Isomerism
6. Which of the following factors affects the stability of the nucleus
7. Magic number
8. Packing fraction
9. Mass defect
10. **All of the above**
11. The neutron – proton (N/Z) ration lies in the range of ….. which attain the nuclear stability
12. 1 to 1.1
13. 1 to 1.2
14. **1 to 1.6**
15. 1 to 1.9
16. 1 amu = …………
17. 500 Mev
18. **931 MeV**
19. 760MeV
20. 1000 Mev
21. 60Co is used to treat the disease…….
22. Leukemia
23. **Malignant cell of cancer**
24. Skin disease
25. Parathyroid disorder
26. -particle are designated as………
27. **2He4**
28. 2He6
29. 2He2
30. 2He8
31. 53 I is used to treat the disease…….
32. Efficiency of blood circulation
33. Brain tumor
34. thyroid disorder
35. **all of the above**
36. Decantation is process of ………….
37. Filtration
38. Digestion
39. Ignition
40. Drying
41. Radioactive materials do not emit
42. **Protons**
43. Electrons
44. Alpha-particles
45. Gamma particles
46. The negative value of packing fraction indicate that the isotope is
47. **Stable**
48. Unstable
49. Less stable
50. Artificial
51. Slow neutrons can bring about the fission of
52. 88U226
53. 92U238
54. **92U235**
55. 82Pb206
56. The radioactive isotopes which have an excessive N/Z ratio generally exhibit
57. **Beta-emission**
58. Alpha-emission
59. Positron emission
60. None of the above
61. In which of the following the magic numbers of both protons and neutrons are present
62. **82Pb208**
63. 50Sn108
64. 82Pb206
65. None of the above
66. Nuclei having the same atomic number but different mass number is known as
67. Isobars
68. **Isotopes**
69. Isotones
70. isomers
71. Nuclei having the different atomic number but same mass number is known as
72. **Isobars**
73. Isotopes
74. Isotones
75. isomers
76. by losing a beta-particles, an atom of neptunium changes to
77. an isotope of neptunium
78. **an isotope of plutonium**
79. an isotope of uranium
80. an isotope of thorium
81. the mass less particles are
82. alpha particles
83. **gamma particles**
84. protons
85. all of the above
86. 6C11 & 5B11 are referred as
87. Isotopes
88. Isobars
89. **Isotones**
90. Isomers
91. The energy production in the sun and the stars is due to
92. Nuclear fission
93. **Nuclear fusion**
94. Both a & b
95. None of the above
96. The mass of a -meson is
97. **273 times that of the electron**
98. 273 times that of proton
99. 1/273 times the mass of proton
100. Same as mass of an electron
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