Physics FSC Part 2 Chapter 21 Online MCQ's Test

Sr	Questions	Answers Choice
1	There is no charge in A and Z of any radioactive element by the emission of.	A. Alpha particle B. Beta particle C. Gama particle D. X- rays
2	The radio active nuclide $_{86}Ra^{228}$ decays by a series of emissions of three alpha particles and one beta particle. The nuclide X finally formed is:	A. ₆₄X²²⁰ B. ₈₆X²²² C. ₈₄X²¹⁶ D. ₈₈X²¹⁵
3	One joule of energy absorbed per kilogram of a body is	A. Roentgen B. Grey C. Rem D. Curie
4	The energy equivalent of 1 kg of matter is about:	A. 10⁻¹⁵ J B. 1 J C. 10⁻¹²J D. 10⁻¹⁷J
5	The mass of proton in amu is:	A. 1.07276 B. 1.7276 C. 1.007276 D. 1.0007276
6	The most useful tracer is.	A. Strontium -90 B. Iodine -31 C. Cobalt -60 D. Carbon -14
7	The mass of beta particle is equal to the mass	A. Proton B. Neutron C. Electron D. Photon
8	Energy needed to produce an electron hole in solid state detector is.	A. 1 to 2 eV B. 3 to 4 eV C. 6 to 7 eV D. 8 to 9 eV
9	The mass of protons is:	A. 1.675 x 10⁻²⁷ kg B. 1.693 x 10⁻²⁷ kg C. 1.673 x 10⁻³¹ kg D. 1.673 x 10⁻²⁷ kg
10	The activity of radioactive sample	A. Is constant B. Increases with time C. Decreases linearly with time D. Decreases exponentially with time
11	Mass of meason is	A. Greater then proton B. Less than proton C. Equal to proton D. Equal to neutron
12	Which of the following basic force is able to provide an attraction between two neutrons:	A. Electrostatic and nuclear b B. Electrostatic and gravitational C. Gravitational and strong nuclear D. Only nuclear force
13	How many times, the alpha particle is more massive than electrons.	A. 6332 B. 7332 C. 8332 D. 9332
14	In Wilson cloud chamber, ß-particles leave	A. Thin and continuous tracks B. Thick and continuous tracks C. No tracks D. Thin and discontinuous tracks
15	Both xenon and caesium each have:	A. 41 isotopes B. 36 isotopes C. 43 isotopes

		D. 33 isotopes
16	The number of neutrons in Li are	A. 2 B. 3 C. 4 D. 7
17	The background radiation to which we are exposed, on the average is.	A. 1 mSv per year B. 2 mSv per year C. 3 mSv per year D. 4 mSv per year
18	The energy of photon for photoelectric effect is less than	A. 1 MeV B. 2 MeV C. 5 MeV D. 8 MeV
19	Which one of the following is not affected by electric or magnetic field.	A. Beta rays B. Gama ryas C. Alpha rays D. Electron
20	The mass of beta particle is equal to mass of.	A. Protons B. Electrons C. Neutrons D. Boron
21	The reciprocal of decay construct lamda of a radioactive element is.	A. Half life B. Mean life C. Curie D. total life
22	When a nucleus emits an alpha particle, its atomic mass decreases by	A. 1 B. 2 C. 3 D. 4
23	The number of neutron present in a nucleus in a given by	A. N = A+Z B. N = A- z C. N = Z - A D. N = A X Z
24	Which one belongs to lepton's group	A. Electron B. Muons C. Neutrons D. All of these
25	What is difference is isotopes	A. Number of protons B. Number of neutrons C. Number of electrons D. Charge number
26	The binding energy per nucleon is maximum for	A. Helium B. Iron C. Potassium D. Radium
27	The unit of radioactivity is:	A. Bequerel B. Henry C. Pascal D. Joule
28	Radioactivity happen due to the disintegration of	A. Nucleus B. Mass C. Electrons D. Protons
29	Unit of decay constantλ is:	A. ms B. m⁻¹ C. m D. S⁻¹
30	Which particle has larger range in air.	A. Alpha rays B. Gama rays C. Beta rays D. Neutron
31	Hydrogen bomb is an example of.	A. Nuclear fission B. Nuclear fusion C. Chain reaction D. Chemical reaction
32	Which pair belongs to hadrons.	A. Protons and Neutrons B. Neutrons and electrons C. Photons and electrons D. positrons and electrons
		A. Hadrons B. Laptons

33	Electrons are	B. Leptons C. Quarks D. Baryons
34	The Unit of decay constant.	A. Second B. (second)-1 C. m-1 D. mk
35	Charge on an electron was determined by	A. Ampere B. Millikan C. Maxwell D. Bohr
36	Gamma radiations are emitted due to:	A. De-excitation of atom B. De-excitation of nucleus C. Excitation of atom D. Excitation of nucleus
37	GM counter uses	A. Alcohol only B. Bromine C. argon D. Neon and bromine
38	The binding energy for_____ is maximum.	A. Copper B. Glass C. Iron D. Aluminum
39	The scientist who suggested the presence of neutron was:	A. Bohr B. Rutherford C. Chadwick D. J.J Thomson
40	Energy released by conversion of 1 amu is	A. 200 MeV B. 931 MeV C. 233 MeV D. 243 MeV
41	The charge number of Ba is.	A. 197 B. 141 C. 56 D. 85
42	When gama rays are emitted, the nuclear mass.	A. Decreases by 4 units B. Does not change C. Increases by 2 units D. Increase by 1 unit
43	When nitrogen is bombarded by alpha particles nitrogen nucleus changes into	A. Oxygen B. Carbon C. Barium D. Helium
44	Circulation of blood is studied by radio isotope.	A. Cobalt -60 B. Phosphorus -32 C. Sodium -24 D. Iodine -131
45	The most abundant isotope of neon is:	A. Neon 21 B. Neon 20 C. Neon 22 D. None of above
46	Unit of decay constantλ is:	A. ms B. m⁻¹ C. m D. S⁻¹
47	amu =	A. 1.06 x 10⁻²⁷ kg B. 1.6606 x 10⁻²⁷ kg C. 1.520 x 10⁻²¹ kg D. 1.6606 x 10⁻³¹ kg
48	Low level radiations effects	A. Less of hair B. Ulceration C. Drop of white blood cells D. All
49	The amount of energy equivalent to 1 a.m.u is	A. 931.5 MeV B. 93.15 MeV C. 9.315 MeV D. 2.224 MeV
50	Both Xenon and cesium have	A. 33 isotopes B. 34 Isotopes C. 36 Isotopes D. 35 Isotopes

51	In Wilson cloud chamber, if tracks are thick, straight and continuous, then particle is	A. a-particles B. ß-particles C. Y-rays D. All
52	1 gray is equal to.	A. 1 JKg-1 B. 1KgJ-1 C. 1JKg D. 1 JKg-2
53	The place for soring the nuclear waste is	A. Ocean B. Damping in earth C. Damping in desert D. Bottom of old salt mines
54	A proton consists of quarks which are.	A. Two up, one down B. One up, two down C. All up D. All down
55	The radioactive decay obeys the law	
56	Two down and one up quarks make	A. Proton B. Neutron C. <strike>photon</strike> D. Positron
57	Those elements whose charge number z is greater then _____ are unstable:	A. 80 B. 79 C. 82 D. 83
58	Various types of cancer are treated by	A. Carbon -14 B. Nickel -63 C. Cobalt -60 D. Strontium -90
59	For workers in nuclear facilities is, a weekly does of is normally considered safe	A. 1.0 msv B. 5.0 msv C. 2.0 msv D. 3.0 msv
60	In nuclear radiation , track of alpha particle is.	A. Thin B. Discontinuous C. Erratic D. Continuous
61	Controlling rods inserted into the reactor are of metal:	A. Aluminium B. Cadmium C. Magnesium D. Copper
62	The moderator used in a nuclear reactor	A. Sodium B. Uranium C. Graphite D. Cadmium
63	Absorbed Dose 'D' is defined as	A. m/E B. E/C C. C/m D. E/m
64	By emitting Beta particle and gama particle simultaneously the nucleolus changes in its charges by	A. N B. N/2 C. N/4 D. 3N/4
65	Which of the following are not hadrons.	A. Muons B. Mesons C. Positrons D. Neutrons
66	Materials can be identified by measuring their	A. Mass B. Half life C. Both a and b D. None of a,b,c
67	The force which is responsible for the breaking up of the radioactive element is.	A. Weak nuclear force B. Strong nuclear force C. Electromagnetic force D. Gravitational force
68	Mass equivalent of 931 MeV energy is:	A. 6.02 x 10⁻²³ kg B. 1.766 x 10⁻²⁷kg C. 2.67 x 10⁻²⁹kg D. 6.02 x 10⁻⁸⁷kg
		A. m

69	The SI unit of decay constant is	B. m⁻¹ C. S⁻¹ D. Nm⁻¹
70	The number of protons in any atom are always equal to the number of	A. Neutrons B. Electrons C. Positrons D. Mesoris
71	Gamma rays from cobalt -60 are used for treatment of.	A. Circulation of blood B. Cancer C. Heart Attack D. Thyroid glands
72	The charge of an alpha particle is equal to	A. -e B. +e C. -2e D. 2e
73	The first atomic reactor was introduced by	A. Currie B. Enrico Fermi C. Newton D. Bohr
74	How many neutrons are there in the nuclide Zn^{66}?	A. 22 B. 30 C. 36 D. 66
75	The particles which do not experience strong force are called.	A. Baryons B. Hadrons C. Mesons D. Laptons
76	Which of the following is similar to electron.	A. Beta particle B. Alpha particle C. Neutron D. Proton
77	The mass spectrum of naturally occurring neon shows the most abundant isotope has atomic mass.	A. 19 B. 20 C. 21 D. 22
78	Nuclear fission chain reaction is controlled by using.	A. Cadmium rods B. Iron rods C. Platinum rods D. Steel rods
79	The mass spectrum of naturally occurring neon, showing	A. 1 isotope B. 2 isotope C. 3 isotope D. 4 isotope
80	Cosmic rays consist of	A. Protons B. High energy photons C. Positron D. All of above
81	I amu =	A. 9.31 MeV B. 931 MeV C. 9.031 MeV D. None of above
82	The half life of radioactive elements depends upon	A. Temperature B. Nature of element C. Amount of the radioactive substance D. Pressure
83	The building blocks of protons and neutrons are called.	A. Ions B. Electrons C. Positrons D. quarks
84	A pair of quark and anti quark makes a.	A. Meason B. harden C. Lapton D. Baryon
85	Alpha particle carries a charge.	A. -e B. +2e C. -2e D. No charge
86	If the following particle have the same energy, which particle has the shortest wave length.	A. alpha particle B. Neutron C. Beta particle D. Proton

		D. Photon
87	Subatomic particles are divided into groups.	A. Photon B. Laptons C. Hadrons D. All of these
88	X -rays are similar in nature to.	A. Gama rays B. Beta rays C. Alpha rays D. Cathode rays
89	Half life of Uranium -239 is	A. 26.5 minutes B. 24.5 minutes C. 25.5 minutes D. 23.5 minutes
90	Binding energy per nucleus for uranium is above:	A. 6.7 Mev B. 7.7 Mev C. 6.9 MeV D. 7.9 MeV
91	Bottom quark carries charge :	A. 2/3 e B. -2/3 e C. +1/3 e D. -1 /3 e
92	The quantity of U in the naturally occurring uranium is.	A. 0.2% B. 0.3% C. 0.7% D. 0.4%
93	The number of Isotopes of cesium are.	A. 4 B. 32 C. 22 D. 36
94	The charge on Beta particle is	A. +e B. -e C. -2e D. None of these
95	The early Greeks believed that matter waves was	A. Discrete B. Continuous C. Both continuous and discrete D. All of above
96	Cobalt -60 is the source for	A. Alpha rays B. Gama rays C. Beta rays D. Neutron
97	When a nucleus emits alpha particle its atomic mass decreases by	A. 1 B. 2 C. 3 D. 4
98	The total charge of any nucleus is:	A. Ze B. Z C. Both a and b D. None of above
99	Half life of radon gas is	A. 3.8 minutes B. 3.8 days C. 3.8 months D. 3.8 years
100	Which of the following is typical source of alpha particle.	A. Strontium -94 B. Radon -222 C. Cobalt -60 D. Zic sulphate
101	A radio active substance has a half life of four months. 3 -fourth of the substance will decay in:	A. 6 months B. 8 months C. 12 months D. 16 months
102	Binding energy for deuteron nucleus is given by	A. 2.8 MeV B. 2.23 MeV C. 2.28 MeV D. 2.25 MeV
103	Marie Curie and Pierre Curie discovered.	A. Uranium B. Uranium and Radium C. Polonium and radium D. Radium
104	Curie is unit of	A. Conductivity B. Binding energy

104	Curie is unit of:	C. Radioactivity D. Resistivity
105	A positron is a particle having.	A. Mass equal to electron B. Charge equal to electron C. Mass equal to mass of electron but charge opposite to charge of electron. D. Mass equal to proton
106	The dead time of G.M tube is.	A. 10⁻¹ sec B. 10⁻⁶sec C. 10⁻⁴sec D. 10⁻⁸sec
107	The number of Neutron is $^{238}U_{92}$is	A. 92 B. 238 C. 146 D. 330
108	1 amu is equal to	A. 1.0606 x 10⁻²⁷ kg B. 1.66 x 10⁻³¹ kg C. 1.66 x 10⁻³⁴ kg D. 1.66 x 10⁻¹⁹ kg
109	Rutherford performed on experiment on a nuclear reaction in:	A. 1921 B. 1981 C. 1927 D. 1932
110	A device that shows the visible path of ionizing particle is called.	A. GM counter B. Solid state detector C. Scalar D. Wilson cloud chamber
111	Before and after nuclear reaction the number of protons and neutrons:	A. Must be different B. Must be decreased C. Must be increased D. Remains same
112	The types of quacks are.	A. 2 B. 3 C. 4 D. 6
113	Two up quarks and one down quarks makes a	A. Proton B. Newton C. Photon D. Meson
114	Nuclear fission was discovered by:	A. Otto Hahn B. Friz strassmann C. Both a and b D. Michaelson
115	A particles equal or greater in mass than of protons are called.	A. Baryons B. Leptons C. Mesons D. Quarks
116	Which is true for both alpha particle and gama rays.	A. They cause ionization in air B. They can be deflected by electric field C. They can be deflected by magnetic field D. The y can penetrate a few millimeters of aluminium
117	Iodine -131 is used for the treatment by	A. Bones B. Eyes C. thyroid glands D. Lungs
118	The bnding energy for nucleus A is 7.7 Me V and that for nucleus B is 7.8 MeV. Which nucleus has the larger mass?	A. Nucleas A B. Nucleus B C. Less than nucleus D. None of these
119	The particles equal in mass but greater than proton are.	A. Mesons B. Baryons C. Leptons D. Hadrons
120	Number of Isotopes of Neon gas are	A. 2 B. 3 C. 4 D. 1
121	The potential difference between the top and bottom of a cloud chamber is of the order of	A. 290 v B. 400 v

121	The potential difference between the top and bottom of a cloud chamber is of the order of	C. 1 kv D. None of above
122	Binding energy per nucleon is maximum for	A. Platinum B. Iron C. Uranium D. Lead
123	James chadwick discovered:	A. Proton B. Positron C. Neutron D. Electron