श्री चित्रा तिरुनाल आयुर्विज्ञान और प्रौद्योगिकी संस्थान, त्रिवेंद्रम , केरल– 695 011
(एक राष्ट्रीय महत्व का संस्थान, विज्ञान एवं प्रौद्योगिकी विभाग, भारत सरकार)
SREE CHITRA TIRUNAL INSTITUTE FOR MEDICAL SCIENCES AND TECHNOLOGY, TRIVANDRUM
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Entrance Examination 2020- PG-Diploma in Neuro Technology

SL No	Question	Answer	OptionA	OptionB	OptionC	OptionD
1	World brain day celebrated as	A	July 22	July 25	June 22	June 25
2	Which India –born scientist was awarded the Nobel prize in astrophysics?	D	Sir. C.V Raman	Satyendra Nath Bose	Vikram Sarabhai	Prof.Chandrashekhar
3	The splitting of white light into its constituent colors is called	C	Displacement.	Deviation.	Dispersion.	Refraction.
4	Which of the following quantity is constant for uniform circular motion	C	Velocity	Acceleration	Speed	Distance
5	For a body moving in a circular path with constant speed, the velocity	C	Zero	Constant	Changes	Remains Same
6	If density of a block is 981kg/m3 , it shall	C	Sink	Float	Float completely submerged in water	Float completely out of water
7	A spherical air bubble is embedded in a piece of glass. For a ray of light passing through the bubble, it behaves like a:	C	Converging lens	Plano-converging lens	Diverging lens	Plano-diverging lens
8	A moving body of mass 40 kg has 80 joules of kinetic energy, speed of body is	B	4 m/s	2 m/s	6 m/s	8 m/s
9	The motion of a particle of air, when sound wave passes through it is	A	Periodic	Adiabatic	Isothermal	Oscillatory but not periodic
10	Transverse waves are produced in	D	Solids	Gases	Liquids	Both Solids and liquids
11	The intensity of loudness of sound is measured in unit of	C	Hertz	Volt	Decibel	Ampere
12	The vibrations which a human ear can perceive are called	D	Periodic	Ultrasonic	Infrasonic	Sonic
13	The stesthescope used by doctors works on	C	Refraction of sound	Transmission of sound	Reflection of sound	Interference of sound
14	One joule is approximately equal to	A	0.24 Cal	0.28 Cal	0.32 Cal	4.2 cal
15	Total internal refrlection can occur when light passes from	B	Air to water	Water to glass	Air to glass	Glass to water
16	The image of an object fored by a device is always virtual and small. The device may be	B	A glass plate	A concave mirror	A convex lens	A cncave lens
17	A cylindrical lens is used to correct	C	Presbiopia	Myopia	Astigmatism	Hypermetropia
18	The electric bulb draws 1.2A current at 6V. The resistance of the filament bulb is	B	2.5 ohm	5 ohm	7.2 ohm	20 ohm
19	An electric heater of resistance 20 ohm draws a current of 5A. The heat in 6 seconds will be developed will be	A	3000J	15000J	1000J	300J
20	For making a strong electromagnet, the material of the core should be	A	Soft iron	Steel	Brass	Laminated steel strips
21	The direction of induced current is obtained by	B	Flemings left hand rule	Flemings right hand rule	Ampere's rule	Maxwells core screw rule
22	If a bar magnet is cut into 4 pieces, the total number of poles will be	A	8	6	4	2
23	The magnetic effect of electric current was discvered by	B	Maxwell	Oersted	Ampere	Volta
24	Which of the following facilitates sun drying of clothes?	B	Gamma rays	IR rays	UV rays	X-rays
25	Resolving power of a microscope depends upon	D	The apertures of the objective and the eye lens	The focal length and aperture of the eye lens	The focal length and objective of the eye lens	The wavelength of light illuminating the object
26	Which of the following is not a homogenous mixture?	B	Bronze	A mixture of O2 and He	Milk	A mixture of petrol and kerosene
27	The monoatomic gas among the following is	B	Hydrogen	Helium	Oxygen	Nitrogen
28	Identify the pure susbtance fom the following	A	Molten sodium chloride	Sugar solution	Aqueous sodium chloride	10% H2SO4
29	No new substances are not formed in which of the following reactions?	C	Combustion	Neutralisation	Crystalisation	Digestion
30	Atomicity of magnesium is equal to the atomicity of	D	Bromine	Flourine	Sulphur	Krypton

31	True solution is	A	Homogeneous and transparent	Homogenous and opaque	Heterogenous and transparent	heterogenous and opaque
32	The kinetic energy of gas molecules decreases with	B	Increase in temperature	Decrease in temperature	Temperature indpendednt	None of the above
33	The radioactive isotope of hydrogen contains……. Number of neutrons	C	0	1	2	3
34	Neucleus was discvered by	D	J J Thomson	Neils Bohr	Chadvick	Rutherford
35	The electron of an atom moves from its valence shell to K shell. It will	B	Absorb energy	Release energy	Neither absorb or release energy	No change will occur
36	Latin name of pottasium is	D	Plumbum	Stannum	Natrium	Kalium
37	How many oxygen atoms are there in 2 molecules of calcium sulphate	B	4	8	16	12
38	Respiration is an example of	C	Displacement reaction	Endothermic reaction	Exothermic reaction	Combination reaction
39	Which of the following is an oxidising agent?	D	Na	Cs	Ca	F_2
40	The element which can be cut with a knife	A	Pottasium	Aluminium	Magnesium	Iron
41	The metal present in haemoglobin is	A	Fe	K	Al	Mg
42	The metal present in chlorophyll is	D	Fe	K	Al	Mg
43	Allotrope of carbon used as a lubricant is	B	Diamond	Graphite	Fullerene	Charcoal
44	Bauxite and cryolite are ore of	B	Iron	Aluminium	Magnesium	Gold
45	Most abundant element on earth is	A	Oxygen	Iron	Nitrogen	Carbon
46	Amalgam is an alloy containing	D	Iron	Aluminium	Magnesium	Mercury
47	Father of biology is	D	Newton	Charles Babbage	Nicolaus Copernicus	Aristotle
48	Which of the following is likely to accumulate in dangerous proportion in the blood of a person whose kidney is not working properly	B	Lysine	Urea	Ammonia	Sodium chloride
49	The functional block of kidneys are	A	Nephrons	Glomerouli	Ureters	Neurons
50	The gradual change in a species overtime is called	B	Variation	Evolution	Migration	Mutation
51	Human being belong to the species	C	Homo erectus	Homo Habilis	Homo Sapiens	Hominidae
52	Father of genetics is	C	Charles Darwin	Jean-Baptiste Lamarck	Gregor Mendel	Carl Linnaeus
53	What happens uring a diastole?	C	Blood leaves ventricles	Blood leaves heart	Blood enters heart	Blood enters lungs
54	Average heart beat per second is	B	50	70	95	120
55	Leukemia is a disease of	B	Lungs	Blood	Skin	Nerves
56	Hydroponics are	B	Water	Solution containing all nutrients	Green house	Liquid
57	Which law is also called law of inertia	B	Newton third law	Newton first law	Newton second law	All of the above
58	A junction when two (or) more than two network elements meet is known as a ___	B	Mesh	Node	Branch	Loop
59	Sublimation is used to purify	A	solids	plasma	gases	liquids
60	The product from blast furnace is called	A	Pig Iron	Cast Iron	Wrought Iron	Steel
61	Name of the instrument to measure atmospheric pressure?	C	Calipers	Bolometer	Barometer	Barograph
62	Which of the following has greatest affinity for haemoglobin?	D	NO	CO2	O2	CO
63	Electric motor converts	A	Electric energy into mechanical energy	Mechanical energy into electrical energy	Electrical energy into light energy	None of above
64	The measure of light gathering capacity of the optical fibre is called	B	Scattering	Numerical Aperture	Interference	Refraction
65	Brass is an alloy of	A	Copper and zinc	Copper and nickel	Nickel and tin	Zinc and nickel
66	The principle of LVDT operation is:	A	Mutual inductance	Resistance	Capacitance	None of these
67	Suspension of slaked lime in water is known as	C	Quick lime	Lime water	Milk of lime	None of these

68	Aqua regia consists of	A	Nitric acid and Hydrochloric acid	Sulphuric acid and Hydrochloric acid	Nitric acid and Carbonic acid	Nitric acid and Sulphuric acid
69	Which among the following metal is stored in kerosene?	B	Aluminium	Sodium	Bromine	Calcium
70	The disease of the eye in which the intraocular pressure is increased is	D	Cataract	Astigmatism	Myopia	Glaucoma
71	The power house of the cell is	B	Golgi apparatus	Mitochondria	Vacuoles	Lysosomes
72	Force of attraction between the different substances is called	A	Adhesive force	Surface tension	Cohesive force	None of above
73	A divergent lens will produce	A	Always virtual image	Always real image	Sometimes real and sometimes virtual image	None of these
74	A ray is incident at an angle 38° on a mirror, the angle between normal and reflected ray is	B	90°	52°	38°	76°
75	A gas behaves more closely as an ideal gas at	B	Low pressure and low temperature	Low pressure and high temperature	High pressure and low temperature	High pressure and low temperature
76	The apparent change in frequency due to the relative motion between the source and observer is called	C	Harmonic waves	Theory of Relativity	Doppler effect	Photoelectric effect
77	An electron microscope is better than optical microscope because of	D	Comfortable use	Low purchasing cost	Observation can be taken quickly	More resolving power
78	The separation of the constituents of a mixture by column chromatography depends upon their	A	Differential adsorption	Different boiling points	Different refractive indices	Different solubilities
79	In human ear, secretion of wax is done by_____	A	Ceruminous glands	Basilar membrane	Cochlea	Vestibule
80	Normal Human Blood Pressure is _____ mmHg	B	100/50	120/80	150/70	200/100
81	Ozone layer is present in	B	Troposphere	Stratosphere	Mesosphere	Ionosphere
82	Which of the following is not a greenhouse gas?	C	Ozone	Methane	Nitrogen	Carbondioxide
83	Which among the following vitamin help in absorption of calcium from intestinal tracts?	C	Vitamin A	Vitamin C	Vitamin D	Vitamin K
84	Which part of the brain coordinates our muscle movements?	C	Cerebrum	Medulla oblongata	Cerebellum	None of these
85	Which among the following is not a classification of EEG waves?	C	Beta waves	Alpha waves	PQRS waves	Theta waves
86	Who discovered X-rays	C	Curie	Becquerel	Rontgen	Michelson
87	Blood is brought back to the heart from the body by	C	Cells	Arteries	Veins	Nerves
88	Sound waves can pass through	C	air only	vacuum	air and other states of matter	vacuum and other states of matter
89	Perimeter of a square is 40 cm. find the area?	C	10 cm^2	400 cm^2	100 cm^2	160 cm^2
90	which of the following hormones is responsible for the emotional states such as fear, anger and tension and rise in blood pressure and heart rate	D	somatotropin	oxytocin	thyroxine	adrenaline
91	DNA structure was first described by	B	Cat Cheside	Watson and crick	Nirenberg	Nirenberg
92	The ground faults can be avoided by	A	using isolated power supply	using 3 pin plug system	using fuses in the circuits	using pure DC alone
93	Temperature sensing can be achieved by the use of	D	RTDs	thermocouples	thermistors	all the above
94	The EEG signal is originated from the	A	Brain Cells	Sino arterial node	Motor units.	Acetylcholine
95	The master gland present at the base of the brain is	A	Pituitary gland	Pineal gland	Adrenal gland	Liver
96	Which part of the ear is responsible for maintaining balance?	C	Organ of corti	Ear ossicles	Vestibular apparatus	Tympanic membrane
97	Which among the following elements is diamagnetic?	C	Platinum	Iron	Copper	Oxygen
98	The brain uses what percentage of the body's energy?	B	10 per cent	20 per cent	2 per cent	50 per cent
99	Type of brain surgery that uses system of three dimensional coordinates to locate the operative site is called?	C	Densitometry	microsurgery	sterotatic surgery	laproscopic surgery
100	what is the role of positive catalyst in a chemical reaction?	A	It increases the rate of recation	It decreases the rate of reaction	It increases the yield of the product	It provides better purity of the products

101	The use of notch filter in signal conditioning system is	B	to filter RF noise	50Hz noise from	he signal from	he evoked respor
102	The normal pH of blood is	B	7	7.4	6.6	7.8
103	Otoscope is an instrument which is used to	D	t the abdominal	nspect the thora	spect the stoma	spect the ear dru
104	The unit of electric potential is	A	Volt	Ampere	Coloumb	Farad
105	Find the number if its 25.5 % is153	B	400	600	550	625
106	Principle of transformer is	B	eddy current	mutual induction	self induction	Joule's law
107	The disease caused by deficiency of protein in children is called	C	beri-beri	pellagra	marasmus	rickets
108	A patient's temperature changed daily between 96.8 F and 105	C	37,42	38,41	36,41	36,40.5
109	What is the range of mercury thermometer ?	C	elsius to 350 deg	ee Celsius to 350	e Celsius to 350	ee Celsius to 350
110	SI unit for length is	B	yard	meter	Centimeter	feet
111	Microorganisms that can only live and grow in the presence of	D	Pathogen	Mold	Anaerobe	Aerobe
112	Pick out the only scalar quantity from the following physical qu	C	electric current	velocity	area	torque
113	Which of the following is an ohmic resistor?	C	Transistor	Germanium	Nichrome	Diode
114	Ophthalmoscope is an instrument which is used to	A	inspect the eye	nspect the thora	spect the stoma	t the abdominal
115	Which instrument is used to measure the power of electric circ	C	Viscometer	Decibelmeter	Wattmeter	Potentiometer
116	Which instrument is used to determine the intensity of colours	C	Catheter	Chronometer	Colorimeter	Commutator
117	When a negative ion is formed, the effective nuclear charge	C	Increases	Decreases	Is the same	Unpredictable
118	What does LED stand for?	B	ow Energy Displa	ght Emitting Dio	t Emitting Disp	t Emitting Detec
119	Light propagates rectilinearly, due to	B	wavelengths	wave nature	velocity	frequency
120	A laser beam is used for locating distant objects because	D	t is not observed	t is not chromati	is monochroma	small angular sp
121	An optically active compound	C	e direction of po	ane polarised ligh	e plane of pola	none of these
122	A metal surface ejects electrons when hit by green light but no	D	heat rays	infrared light	red light	blue light
123	Which phenomenon best supports the theory that matter has a	B	lectron diffractio	ectron momentu	hoton diffractio	hoton momentur
124	Mirage is a phenomenon due to.	C	reflection of light	refraction of light	ernal reflection	diffraction of light
125	Potential barrier developed in a junction diode opposes the flo	C	ectrons in p regi	holes in p region	jority carriers o	arrier in both reg
126	In a half wave rectifier circuit operating from 50 Hz mains frequ	D	100 Hz	25 Hz	70.7 Hz	50 Hz
127	Which one is a broad spectrum drug?	B	Chloroquine	Chloramphenico	Plasmoquine	Chloroxylenol
128	Allergy is caused by the production of in the body	D	Enzymes	Vitamins	Hormones	Histamines
129	Drug which is used to reduce anxiety and brings calmness is kn	C	Diuretic	Analgesic	Tranquilizer	Antacids
130	Streptococcus is used in the preparation of	D	Idli	Wine	Bread	Paneer
131	A free living anaerobic nitrogen fixing bacterium is:	C	Streptococcus	Rhizobium	Clostridium	Azotobactor
1	Which chemical substance affects the Ozone Layer?	B	Hexafluorocarbon	hlorofluorocarbo	Chlorine	Molecular Carbor
1	Amniocentesis is a process to:	C	e any disease in	about diseases o	ereditary disea	bout condition o
1	AIDS caused by:	A	By Virus	By fungus	By Helminthes	By Bacteria
1	PCR isused to test for:	D	Cancer	Tuberculosis	Cholera	HIV
1	Which organ of body is most affected by excessive intake of alc	A	Liver	Lungs	Spleen	Stomach
1	Widal test is done to confirm:	A	Typhoid	Cancer	Malaria	AIDS
1	Tendons and ligaments are _____.	B	Muscular tissue	ous connective ti	onnective tissu	Skeletal tissue
1	Which of these is a disease of the myelin sheath?	D	Leprosy	Polio	Alzheimer	Multiple sclerosis
1	Which of these has the highest permeability in a resting nerve	B	Cl-	K+	Na+	I-
1	Where will the image of a distant object be formed when a per	B	behind retina	front of the reti	on the blindspo	on the yellow spo
1	A cornea transplant is never rejected in humans because	C	sists of enucleate	s a non-living lay	as no blood sup	least penetrable
1	The transparent lens in the human eye is held in its place by	B	attached to the	uscles attached	nts attached to	es attached to th
1	Bakelite is an example of	D	elastomer	fibre	thermoplastic	thermosetting

1	Tyndall effect confirms the	C	ffect on the sol.	tering by the sol	geneous nature	motion of the sol
1	Shape selective catalysis is a reaction catalysed by	A	zeolite	enzymes	platinum	gler-Natta cataly
1	The activity of an enzyme becomes ineffective	C	t low temperatur	tmospheric pres	high temperatu	aqueous mediur
1	Fog in an example of colloidal system of	B	gas in liquid	liquid in gas	solid in gas	gas in solid
1	Why is alum added to water containing suspended impurities?	B	ake acolloidal sol	e the suspended	rities of calcium	dal solution from
1	A plant cell shrinks when it is kept in a	B	ypotonic solutio	ypertonic solutio	sotonic solution	pure water