

MODEL TEST PAPER

MAXIMUM MARKS: 100

TIME: 100 MINUTES

Pre-Medical Course Area & Marks

S.#	SUBJECTS TO BE TESTED	COURSE/AREA FOR TEST	MARKS	TYPE OF QUESTIONS
1.	Biology	Total MCQs: 30 From class 9th: 10 From class 10th: 20	30	MCQs
2.	Physics	Total MCQs: 30 From class 9th: 10 From class 10th: 20	30	MCQs
3.	Chemistry	Total MCQs: 30 From class 9th: 10 From class 10th: 20	30	MCQs
4.	English	Total MCQs: 10 (Grammar 9 th & 10 th level)	10	MCQs

NOTE: The weightage of MCQs may vary slightly in the Test. This is a sample test, The actual MCQs may be SLO based and may correspond to higher cognitive levels.

S. No	Pre-Medical
1.	The term "recombinant DNA" refers to: a) The DNA formed when a gene is inserted into a plasmid vector b) The DNA sequence of an organism that has been genetically modified c) The DNA extracted from a genetically engineered organism d) The DNA resulting from the fusion of two different species
2.	Maryam and Manahil went shopping, but-----couldn't find anythin-----liked. a. They, them b. They, those c. Them, they d. They, they
3.	Which of the following is a strong acid a. HCl (pH= 3) b. Lemon juice (pH=2.2) c. Acetic acid (pH=5) d. Grapes (pH=4.5)
4.	The distance covered by a body in time t starting from rest is _____. a. $\frac{1}{2} \times at^2$ b. vt c. v/t d. a/t ²
5.	Which one will undergo substitution reaction a. C ₂ H ₄ b. C ₃ H ₄ c. C ₄ H ₆ d. C ₂ H ₆
6.	Matte is the mixture of a. Cu ₂ S and FeS b. Cu ₂ O and FeS c. CuS and FeS d. Cu ₂ S and Fe ₂ S
7.	Steel is an example of a. Electroplating b. Element c. compound d. Mixture
8.	All gases have same number ofin there one mole. a. Atoms b. Ions c. Molecules d. Electrons
9.	Neon has same electronic configuration with all these except a. O ⁻² b. Na ⁺¹ c. Mg ⁺² d. Ca ⁺²
10.	Catenation is the link of a. Carbon to carbon atoms b. Oxygen to carbon atoms c. Nitrogen to carbon atoms d. Hydrogen to carbon atoms
11.	When we heat the metal at high temperature they emit _____. a. Protons b. Electrons c. Neutrons d. Neutrino
12.	For turn ratio of transformer to be 5 the relation will be _____. a. N _P = 5 N _S b. N _S = $\frac{N_P}{5}$ c. N _S = 5 N _P d. N _S = $\frac{5}{N_P}$
13.	Which part of a D.C motor reverses the direction of current through the coil every half cycle? a. The armature b. The commutator c. The brushes d. The slip rings
14.	Work done by the gravitational force of earth on a satellite along a circular path is ____. a. 0 b. >0 c. <0 d. ≥0
15.	Which of the following hormones is secreted by the posterior pituitary gland? a) Prolactin b) Follicle-stimulating hormone (FSH) c) vasopressin d) Melatonin
16.	How many functional eggs are typically produced from each primary oocyte? a. 1 b. 2 c. 3 d. 4

17.	When the magnitude of K_c is very small it shows that a. Reaction mixture contains most of the reactants b. Reaction mixture contains most of the products c. Reaction mixture contains almost equal reactants and products d. Reaction is completed
18.	Which of the following is reddish brown gas? a. CO_2 b. NO_2 c. O_2 d. O_3
19.	The most stable artificial radioactive isotope of carbon is C-11, which has a half-life of a. 20.3 days b. 22.3 seconds c. 22.3 minutes d. 20.3 minutes
20.is an ionic compound. a. CO_2 b. H_2O c. CH_4 d. CaO
21.	Which of the following does not act as a lewis acid? a. AlCl_3 b. BF_3 c. CCl_4 d. Mg^{+2}
22.	Lungs receive blood from which chamber of heart for oxygenation a. Right atrium b. Left atrium c. Right ventricle d. Left ventricle
23.	Which of the statement is true about vitamin C a. It is a fat soluble vitamin b. It's deficiency leads to rickets c. It's deficiency leads to scurvy d. It is also called retinol
24.	Intensity level of sound is equal to _____. a. $K \log \frac{I}{I_0}$ b. $K \log \frac{I_0}{I}$ c. $2K \log \frac{I}{I_0}$ d. $K \log \frac{2I}{I_0}$
25.	Which one of the following is an example of primary storage? a. Random Access Memory b. USB c. Hard Disk d. Floppy Disk
26.	During equilibrium which condition may not possible a. More products less reactants b. More reactants less products c. Amount of products will always be equal to amount of reactants at equilibrium state d. Formation of reactants and products is always same at equilibrium state
27.	Water volume is minimum atdegree centigrade a. 4 b. 0 c. -4 d. Below zero
28.	Which events is not associated with the activity of expiration a) dome like shaped of diaphragm b) contraction of diaphragm c) down ward movement of ribcage d) relaxation of intercostal muscles
29.	Stanzaic structure of the poem "Dreams" is -----. a. Quatrain b. Quintain c. Sextain d. Dizain
30.	In damping the amplitude of the vibrating body decreases due to _____. a. Restoring force b. Resistive force c. Weight of the body d. Normal Force
31.	A capacitor C has a charge Q. The actual charges on its plates are _____. a. Q, Q b. 0, Q c. +Q, -Q d. Q/2, -Q/2
32.	It is our problem, not-----. a. There b. Their c. There's d. Theirs
33.	If Marwan----- earlier, he would always be on time. a. Had get up b. Had got up c. Gets up d. Got up
34.	Petroleum is refined by fractional distillation instead of simple distillation because a. Petroleum is organic compounds b. Petroleum has very high boiling point c. Simple distillation is used only for inorganic compound d. The petroleum compounds have very close boiling points
35.	Dehydration of alcohol produces a. Alkene and carbon dioxide b. Alkene and water c. Only alkene d. Only alkyne
36.	Which pollutant has no natural sources? a. NO_x b. SO_x c. Particulate matter d. CFCs
37.	When a straight current carrying conductor is placed in a magnetic field at right angle to it, the direction of magnetic force acting on conductor is _____. a) Opposite to the direction of the field b) Same as the direction of field c) Makes an angle of 45° with the current d) At right angle to both the field and current
38.	An element has atomic number 18. Its belongs toblock a. s b. p c. d d. f
39.	The only non-conductor element in liquid form is..... a. Hg b. Au c. Br d. S
40.	Number of input terminals in NOT gate is _____. a. 1 b. 2 c. 3 d. 4

41.	Three characteristics of a specific method of asexual reproduction are listed below: i. Division of nucleus ii. Division of cytoplasm iii. Invagination of cell membrane Identify the method a. Multiple fission b. Spore formation c. Binary Fission d. Parthenogenesis
42.	How many grams are there in two moles of oxygen gas? a. 16 grams b. 32 grams c. 44 grams d. 64 grams
43.	To prepare 250 cm ³ solution of 2M. The amount of NaOH is a. 10 grams b. 20 grams c. 40 grams d. 80 grams
44.	In reaction $MnO_2 + 4HCl \rightarrow MnCl_2 + Cl_2 + 2H_2O$ which one is reduced? a. Mn b. Cl c. H d. O
45.	If the mass of bob of the pendulum is increased by the factor of 2, then the time period of pendulum motion will _____. a. Increase by factor of $\sqrt{2}$ b. Increase by a factor of 2 c. Increase by a factor of 4 d. Remains Same
46.	Hardness of water is achange a. Chemical b. Physical c. Biochemical d. Biological
47.	The angle of incidence for a light ray having zero reflection angle is _____. a. 0° b. 45° c. 90° d. 180°
48.	Two charged spheres are separated by 1 mm. Which of the following pair of charges would produce the greatest attractive force? a. +1q and +4q b. +2q and -4q c. +2q and -2q d. -2q and -2q
49.	As compare to thick wires, thin wires have _____. a. More resistance b. Least resistance c. Same resistance d. No resistance
50.	The region of high density and pressure relative to the equilibrium density or pressure of the medium is termed as _____. a. Crest b. Trough c. Compression d. Rarefaction
51.	Which of the following organelle/structure is present in animal cell but absent in plant cell a. Amyloplast b. Cell wall c. Chloroplast d. Centrosome
52.	Which of the following is responsible for skin pigmentation? a. Melanocytes b. Sebaceous glands c. Eccrine glands d. Hair follicles
53.	Four-O'clock plants shows incomplete dominance for flower colour. In incomplete dominance if we cross Red(RR) flower with White(rr) flower the F1 generation will be a. Red b. White c. Pink d. Green
54.	Four characters of a specific hormone are listed below • Increased rate and intensity of heart beat • Increased blood pressure • Decreased blood flow to skin & alimentary canal • Increased blood flow to limb Which one of the following is this hormone? a. Adrenaline b. Glucagon c. Insulin d. Testosterone
55.	A positive and negative charges are initially 4 cm apart. When they are moved closer together so that they are now 1 cm apart, the force between them is _____. a. 4 times smaller than before b. 4 times larger than before c. 16 times smaller than before d. 16 times greater than before
56.	Nature of image is formed by convex mirror is a. Real, inverted and diminished b. Real, inverted and enlarged c. virtual, erect and enlarged d. Virtual, erect and diminished
57.	The rate of transpiration decreases with increase in rate of a. Temperature b. Wind c. Humidity d. Light intensity
58.	Trypsin enzyme works at..... a. Acidic pH b. Alkaline pH c. Neutral pH d. pH does not affect its activity
59.	What is the primary role of rhizobium bacteria in the nitrogen cycle? a. Fixing atmospheric nitrogen in legume plant root nodules b. Converting nitrite (NO ₂ ⁻) into nitrate (NO ₃ ⁻) c. Decomposing organic nitrogen compounds into ammonia (NH ₃) d. Denitrifying nitrate (NO ₃ ⁻) back into nitrogen gas (N ₂)
60.	Lactic acid fermentation contributes to the production of various food products. Which of the following foods typically undergoes lactic acid fermentation? a. Bread b. Wine c. Cheese d. Beer

61.	Trypanosomiasis is a parasitic infection transmitted by a) Mosquito b) virus c) fly d) Bacteria
62.	What does the idiom "break the ice" mean? a. To make the first move b. To cause trouble c. To break a physical object d. To hurry up
63.	How does binary fission in Amoeba contribute to its population growth? a. It leads to the formation of multiple offspring simultaneously. b. It allows for the exchange of genetic material between individuals. c. It produces offspring with genetic variations. d. It results in the formation of genetically identical daughter cells.
64.	The change in the focal length of the eye is called ____ a. Modification b. distinct vision c. accommodation d. induction
65.	What is the significance of double fertilization in seed formation? a. It leads to the formation of seeds with multiple embryos. b. It allows for the exchange of genetic material between two different plant species. c. It promotes the production of seeds with high genetic diversity. d. It enables the formation of a well-nourished embryo and endosperm within the seed.
66.	According to the law of independent assortment, if an individual is heterozygous for two genes (AaBb), how many different combinations of alleles can be produced in the gametes? a. 2 b. 4 c. 6 d. 8
67.	The ionic state of matter is called _____. a. Plasma b. Solid c. Liquid d. Gas
68.	Which of the following best describes the structure of DNA? a. Double-stranded helix with antiparallel strands b. Single-stranded linear molecule c. Triple-stranded helix with parallel strands d. Double-stranded helix with parallel strands
69.	At a distance of three Earth's radius above the Earth's surface the value of "g" becomes _____ of its value on earth's surface. a. 4 times b. $\frac{1}{4}$ times c. 16 times d. $\frac{1}{16}$ times
70.	If velocity of a body is reduced to half, then its kinetic energy will _____. a. Reduce by factor of $\frac{1}{4}$ b. Reduce by factor of $\frac{1}{2}$ c. Reduce by factor of 2 d. Reduce by factor of 4
71.	In Newton's third law of motion the action and reaction pair does not neutralize each other because they _____. a. Act on same body b. Act on different bodies c. Act on third body d. Produces friction
72.	Which part of the ear is responsible for transmitting sound vibrations from the outer ear to the middle ear? a. Cochlea b. Tympanic membrane c. Eustachian tube d. Semicircular canals
73.	While going upward in air, air pressure
	a. Increases b. Decreases c. Remains constant d. First increases then decreases
74.	Which of the following is a heterocyclic compounds a. Benzene b. Cyclohexane c. Cyclopentane d. Thiophene
75.	Morphine also acting as pain reliever, is obtained from a. Cannabis b. Psilocin c. Mescaline d. Opium
76.	The market is nearer to them than-----. a. We b. Ourselves c. Ourselves d. Us
77.	The new information about the dengue virus caused panic in government and public-----. a. Like b. Likely c. Dislike d. Alike
78.	He writes faster than any other writer. The word faster is..... a. Adverb b. Adjective c. Adj phrase d. Adverbial phrase
79.	Let the door be quickly. a. Open b. Opening c. Opened d. Close
80.	Which of the following is not an organic compound? a. Urea b. Ammonia c. Hexane d. Methanol
81.	He is known for his intelligence. The word intelligence isnoun? a. Countable b. Proper c. Abstract d. Concrete

82.	What is a niche in ecology? a. The physical location of an organism in its habitat b. The specific role and position of an organism within its ecosystem c. The competition between different species for limited resources d. The total number of individuals of a species in a given area
83.	Which of the following regions of the brain is responsible for the integration of sensory information, coordination of voluntary movements, and maintenance of balance and posture? a. Cerebrum b. Cerebellum c. Medulla oblongata d. Hypothalamus
84.	The weight-bearing joints are usually affected in which of the following disorder a. Gouty arthritis b. Osteoarthritis c. Rheumatoid arthritis d. Idiopathic arthritis
85.	Which one is not an example of amorphous solid a. wood b. Glass c. plastic d. metal
86.	A pea plant that is homozygous dominant for seed color (YY) is crossed with a pea plant that is homozygous recessive for seed color (yy). What will be the genotype of the offspring? a. YY b. yy c. Yy d. Yy and yy in equal proportions
87.	What is the function of the epididymis in the male reproductive system of a rabbit? a. Production of sperm cells b. Storage and maturation of sperm cells c. Secretion of testosterone d. Transport of sperm cells to the urethra
88.	Two combined resistance of two identical resistors, connected in series is 16Ω . Their combined resistance in a parallel arrangement will be _____. a. 2Ω b. 4Ω c. 6Ω d. 8Ω
89.	The refractive index of a crown glass is _____. a. 1.333 b. 1.46 c. 1.52 d. 2.417
90.	What will be the value of γ for a solid for which α has a value of $2 \times 10^{-3} \text{ k}^{-1}$? a. $2 \times 10^{-3} \text{ k}^{-1}$ b. $2 \times 10^{-6} \text{ k}^{-1}$ c. $6 \times 10^{-6} \text{ k}^{-1}$ d. $6 \times 10^{-3} \text{ k}^{-1}$
91.	Which prefix has the smallest value? a. nano b. pico c. femto d. atto
92.	The correct formula for propyne is a. C_3H_8 b. C_3H_5 c. C_3H_6 d. C_3H_4
93.	Which of the following decolorize bromine water? a. C_3H_6 b. $\text{C}_2\text{H}_6\text{O}$ c. CH_4 d. C_4H_{10}
94.	In oligosaccharides, monosaccharides are connected by..... a. Glucose bond/linkage b. Saccharide bond / linkage c. Covalent bond/linkage d. Glycosidic bond/linkage
95.	Bleeding from the damaged blood vessels, either outside of the body or inside of body is caused by deficiency of vitamin..... a. A b. B (complex) c. C d. K
96.	Which one of the followings is true for the group of antibiotics called cephalosporins? a. they are bacteriostatic in action b. they interfere with synthesis of bacterial cell wall c. they inhibit the folic acid synthesis in bacteria d. they inhibit the bacterial protein synthesis
97.	How many vertebrae are typically found in the thoracic cavity? a. 7 b. 12 c. 24 d. 33
98.	Which of the following plants reproduce from the rhizome? a. strawberry b. garlic c. ginger d. onion
99.	The SI unit of Young's Modulus is same as that of _____. a. Elasticity b. Density c. Stress d. Strain
100.	Two balls of masses 100 g and 50 g respectively are dropped freely from same height. Which of these balls will reach the ground first? a. Both at same rate b. 100g ball c. 50g ball d. Both will escape the gravity