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Directorate of Education, GNCT of Delhi
suggestive answers of Practice Paper, term II-2021-22
Class - IX
Science (Code: 086)

Maximum Marks: 40

Time: 2 hours

SECTION - A		
प्र. स. Q. No.		अंक Marks
1	a. Acute b. diabetes, tuberculosis etc.	2
2	Earth is not a sphere it is ellipsoid. Value of 'g' is comparative more at poles and less on equator of the planet earth.	2
3	a. 11N (calculation is required) b. mass of an object remain constant irrespective of place, it will not change. Or a. $v=u+at$; 20m/s b. $s=1/2at^2$; 20m (correct calculation is required)	2
4	Economic stability, public hygiene etc. (any other correct response) Or doctor diagnoses the disease in a diseased person by observing disease sign and symptoms (elaboration is required)	2
5	Proton,neutron,electron. (any two with correct charge)	2
6	F ; e=9 ;n=10	2
7	X=2,4 ;valency=4 ; y= 2,8,7 ; valency =1	2
SECTION - B		
8	a. muscular energy- potential energy- kinetic energy. b. 15foot= 4.5m $p=mgh$; $p=40 \times 10 \times 4.5m=1800J$ Or $36km/h=10m/s$; $72km/h=20m/s$ Initial KE= $1/2mv^2=50,000 J$; final KE= $1/2mv^2=200,000 J$ Work done = change in KE $=2,00,000-50,000=1,50,000J$	3
9	a. Every particle attracts every other particle in the universe with a force that is directly proportional to the product of the masses and inversely proportional to the square of the distance between them. $F = G \times \frac{M_1M_2}{r^2}$ The importance of universal law of gravitation is that it explains the motion of planets around the sun; the motion of moon around the earth; and the motion of artificial satellites around the earth. It also explains the phenomena of rainfall, snowfall, and flow of water in rivers on the earth.	3

	b. 'G' universal gravitation constant and 'g' stands for acceleration due to gravity.	
10	a. Aluminium hydroxide= $\text{Al}(\text{OH})_3$ and sNaCl b. i. Aluminium oxide Al_2O_3 ii. Magnesium oxide MgO	3
11	a. $\text{C}_6\text{H}_{12}\text{O}_6 = 6 \times 12\text{u} + 12 \times 1 + 6 \times 16 = 180\text{u}$ b. 6.022×10^{23} (1 mole) atom in 12g of C-12	3
12	Ion are charge particles.any atom or group of atoms that bears one or more positive or negative electrical charges.. Positively charged ions are called cations; negatively charged ions, anions. cation = Na^+ and anion= Cl^- .	3
13	a. element having same atomic number but different mass number. correct application of isotopes. b. Mg, 2,8,2	3
SECTION - C		
14	a. electrical energy –light energy. b. Any two measures to save electricity. c. Tubelight $40\text{W} = .04\text{kW}$; water pump= $120\text{W} = .120\text{kW}$ Electricity consume by tubelight per day = $4 \times .04\text{kW} \times 8\text{h} = 1.28\text{kWh}$ Electricity consume by TV per day = $1 \times .120\text{kW} \times 6\text{h} = 0.72\text{kWh}$ Electricity consume bywater pump per day = $1\text{kW} \times 1\text{h} = 1\text{kWh}$ Total electricity consume per day in the house= 3kWh or 3 units Total electricity consume in the month of march= $3\text{kWh} \times 31 = 93\text{kWh}$ or 93 units Bill for the month or march @ 3.00Rs per unit will be= $93\text{unit} \times 3 = 279\text{ Rs.}$ Or $P = 1\text{kW} = 1000\text{W}$; $h = 10\text{m}$, $g = 10\text{m/s}^2$; $t = 1\text{min} = 60\text{s}$ $P = w/t = mgh/t$ Mass of water = $(P \times t) / gh = 600\text{kg.}$	4
15	a. rabies. rabies is caused by a virus. b. <i>Vectors</i> are living organisms that can transmit infectious pathogens between humans, or from animals to humans. Rabies, dengue, chicken guinea etc. c. Vaccine is a biological substance designed to protect humans from infections caused by bacteria and viruses . They help the individual to build his immunity against specific diseases. These vaccines will help the body to produce the antibody which fight against the diseases causing pathogen and save the life of the individual. Or As the disease affects the body, the functioning of body organs can be a concern, and medication needs which can cause side effects including allergies. There are certain diseases that can not be treated so the prevention is better than cure.	4