

THE PRIME PRE-PLC TRIAL SET II INTEGRATED SCIENCE MARKING GUIDE 2022

SECTION A (40 Marks)

NO	ANSWER
1.	Plants
2.	The sponge is used for scrubbing the body.
3.	Flightless birds.
4.	To enable the unborn baby grow inside the womb.
5.	A hinge joint allows movement in one plane while a ball and socket joint allows movement in three planes/ A hinge joint allows movement in only two directions while a ball and socket joint allows movement in all directions.
6.	Q - Melting.
7.	Heat energy.
8.	Pivot
9.	Elephant.
10.	Honey.
11.	Transpiration can lead to wilting and drying of a plant.
12.	A vent pipe allows a bad smell to come out of the latrine while a screen traps flies to death.
13.	Body weakness.
14.	Diphtheria.
15.	Inclined planes.
16.	Reduces the effort required to move objects from the lower level to the higher level.
17.	To organise health meetings / To educate fellow pupils about the importance and dangers of poor health life styles.
18.	Their Sphincter muscles are not yet developed.
19.	To prevent the spread of germs and diseases./ To prevent a bad smell in the environment.
20.	Nicotine.
21.	Bathing daily/ brushing daily/ Drinking boiled water/ grooming fingernails short/ ironing clothes/ washing hands after using a toilet.
22.	Parallel beam.
23.	They are thin walled/ They have narrow lumen / They have pores on their walls.
24.	Margarine , Acocado.
25.	Proteins.
26.	Tining / Refrigeration .
27.	Volts.
28.	Exotic breeds mature faster than local breeds. / Exotic breeds produce more meat and eggs than local breeds.
29.	Cirrus clouds.
30.	Seed Selection.
31.	To float on water in case of an accident.
32.	Induced magnets.
33.	By rubbing the bow string to vibrate.
34.	There will be competition for oxygen between people and potted plants.
35.	For easy drying of the utensils.
36.	Arthropods.
37.	Digging out.
38.	Electric energy changes to heat energy.
39.	Bacteria help in decomposition of organic matter.
40.	Urinary bladder.

Section B (60 Marks)

41.	<p>(a) $V = L \times W \times H$</p> <p>$V = 7\text{cm} \times 5\text{cm} \times 3\text{cm}$</p> <p>$V = 35\text{cm}^2 \times 3\text{cm}$</p> <p>$V = 105\text{cm}^3$</p>	<p>(b) Density = $\frac{\text{mass}}{\text{volume}}$</p> <p>Density = $\frac{315\text{ g}}{105\text{ cm}^3}$</p> <p>Density = 3g/cm^3</p>
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42.	(a) Cilia (b) Cilia trap dust that enters with air during breathing in. (c) Keeps the trachea open all the time. (d) To allow expansion and contraction when carrying out gaseous exchange.
43.	(a) (i) When parallel beams of light strike it, it diverges (ii) When parallel beams of light strikes, it refracts light to converge at one point (b) Magnifying glass/projectors/ lens camera / Binoculars/ spectacles/eye glasses/ Telescope/ microscopes.
44.	(a) Splash erosion/ raindrop erosion. (b) Deforestation / devegetation , Overgrazing, Bush burning ,poor farming methods. (c) Mulches prevent the sun from heating the soil directly hence controlling the rate of evaporation of water from the soil.
45.	(a) Over speeding vehicles / Playing on roads/ Driving when one is drunk/ Driving vehicles in bad conditions/Bad roads/ Failure to follow highway rules. (b) Open fracture/ Closed fracture/ comminuted fracture
46.	(i) For measuring humidity (ii) Anemometer (iii) For showing direction of wind (iv) Thermometer
47.	(a) Decanting / decantation, Distillation. (b) Decanting does not kill germs/ Distilled water contain mineral salts. (c) Boiling water/ Treating using recommended chemicals. (d) When separating passion fruit juice from seeds/ When separating clear water from muddy water/ When separating tea from tea leaves.
48.	(a) (i) For killing germs in the teeth. (ii) For removing remained food particles in the mouth. (b) gingivitis/ Tooth decay/ Periodontal disease
49.	(a) X eye bud. (b) Planting a stem tuber. (c) Carbohydrates. (d) Weeding/ pruning/ Thinning/ watering
50.	(a) A type of cattle is a class of cattle kept for a specific purpose. (b) Work cattle/Drought cattle. (c) Dairy cattle is kept for milk production while beef cattle is kept for meat production. (d) Quantity of milk/ Quantity of meat.
51.	(a) Friction force. (b) Produces unnecessary heat/noise in machines/ makes work difficult by increasing the effort needed to do work / reduces efficiency of a machine / causes wear and tear. (c) To increase friction force.
52.	(a) Presence of oxygen/ presence of water/ moisture. (b) Burning produce heat used to cook food. /Respiration produces energy in the body/Fermentation is used to make alcohol/Heat produced during burning is used to warm our bodies by radiation
53.	(a) Helps to prevent skin diseases and bad body smell. (b) Enables parents to have manageable number of children. (c) Helps to prevent teeth diseases. (d) Provides information on how to care for our health.
54.	(a) Kindling. (b) Rabbits require a small space compared to other animals. / Rabbits multiply faster than other animals. (c) Angora rabbit / New Zealand white / chinchilla
55.	(a) (i) Gonorrhoea (ii) Syphilis (b) From Mother to Child Transmission of HIV. (c) To counsel AIDS victims. / To provide food to AIDS people/ To provide ARVS to AIDS people.