Mendaki PSLE Sci Standard 2016

Section A ($30 \times 2 \text{ m} = 60 \text{ m}$)

(1) 4	(6) 2	(11) 2	(16) 3	(21) 2	(26) 4
(2) 1	(7) 4	(12) 4	(17) 4	(22) 4	(27) 4
(3) 3	(8) 4	(13) 4	(18) 2	(23) 4	(28) 4
(4) 4	(9) 4	(14) 3	(19) 3	(24) 3	(29) 3
(5) 2	(10) 3	(15) 2	(20) 4	(25) 2	(30) 3

Section B (40 m)

31	(a) (1m)
	(b) The stem at position X still contains xylem that can transport water to the leaves at position B. The leaves can still make food with the presence of sunlight, water and carbon dioxide. (1m) Thus it will still survive even after 2 days.
32	 (a) Impact 1 : Soil erosion removes the top soil on the river bank and reduce the slope of the river bank.(1m) Impact 2 : The reduction in slope and depositing of sediments can cause the river bank to be flooded when water overflows (1m)
	(b) Plants will not be able to photosynthesise as well as before and die. Soil erosion caused the water to be murky and less transparent. This prevents the sunlight to enter the river and reach the plants for the plants to photosynthesise. (1m).
33	Parachute A has a larger surface area (1m) which offers a greater air resistance (1m). The greater air resistance allows the parachutist to descend more slowly.
34	 (a) The greater the mass of the disc, the shorter the distance travelled by the disc. (1m)
	(b) The same ruler must be used. / The same type of surface the discs travel on. / The same material of the disc is used. / The distance D, is measure from end of disc at the starting position to the end of disc at end position. (choose any 2) (1m each)
	(c) It is to ensure that the result is reliable (1m) and consistent. (1m)
35	(a) Magnetic force (of repulsion) (1m) and Gravitational force (gravity) (1m)

	(b) The object X is a magnet. The <u>N-pole</u> of the object is facing the N-pole of the magnet on the table as it is brought closer. (1m) Since like poles of magnets repel each other the ball is pushed off the table by the magnet closest to it. (1m)
	 (c) As the ball hits the ground, some of its kinetic energy is converted to heat and sound energy. (1m) When the ball travels upwards the lesser kinetic energy is converted to lesser gravitational potential energy, thus the height reached is lesser. (1m)
36	(a) Not Possible To Tell (b) True (c) False (d) True (1m each)
37	 (a) The bat. If the flowers were not pollinated, fruits would not form. The bat is the only animal that relies solely on the fruit as its food source. (1m) Although the squirrel and fly also eat the fruits, they have an alternative food source in foliage and bark.(1m)
	(b) The squirrel feeds on the fruit of the tree. If the population of the squirrels were removed, there would be one less animal to help in the dispersal of tree's seeds. (1m) As a result, the area where the tree propagates might be reduced. (1m)
38	The train and tracks are equipped with electromagnets that are like poles thus they repel each. (1m) This causes the train to rise above the tracks and float thus not having any contact with the tracks which reduces friction. (1m) The reduced friction allows the train to move at a faster speed. (1m)
39	 (a) The purpose of the water bath is to maintain the yeast and sugar solution at a specific temperature (1m)
	 (b) Yeast cannot survive at temperatures equal to or higher than 70°C. (1m) Yeast produces carbon dioxide gas in the presence of sugar solution. (1m)
40	 (a) The warmer water vapour in the house comes into contact with the cooler surface of the inner side of the glass window (1m), loses heat and then condense into tiny water droplets. (1m)
	(b) Air in between the two glass sheets is a poor conductor of heat. Thus it slows down the heat loss to the outer glass Sheet A (1m) keeping glass Sheet B warmer than the first situation thus slowing down the rate of condensation. (1m)
41	 (a) Same identical pot / Same pot size / Same number of leaves / Same plant size. (Choose any 2) (1m each)
	(b) Clayey soil. After 1 week, the plant in pot C had the least number of leaves and least increase in height. (1m) Its leaves turned yellow while those of the other plants in the other pots remained green. (1m)