

Answer



2024 Primary 5 Science Methodist Girls' School End - of - Year Exam

Booklet B

29)	a) Part Y absorbs water into the blood. [1m] b) With disease Q, the <u>exposed surface area of part Z in contact with the food is less</u>, hence <u>less digestive juices produced causing digestion to be slower</u>. [1m] Due to less surface area, <u>the amount of blood flowing through part Z is less</u> and hence <u>decreasing the rate of absorption of digested food</u> [1m] into the blood. c) The heart pumps blood, transporting digested food to all parts of the body. [1m]
30)	a) The scent attracted more insect to visit the flower, allowing more pollination to take place, followed by more fertilization and more fruit development. [1m] b) The small and indigestible seeds are <u>swallowed by the animals which will be carried further away from the parent plant</u>. The <u>seeds will be passed out</u> [1m] from the droppings, without being damaged. c) Seed dispersal <u>prevent overcrowding</u>, [0.5m] so that <u>young plants do not compete with parent plant for water</u>, [1m] nutrients, sunlight and space to <u>grow more healthily</u>. [0.5m]
31)	a) Y. The mass of part Q <u>decreased as the food in the seed leaf is being used</u> [1m] when the seed is germinating. b) Both reproduce by spores [1m] c) Organism A <u>feeds on dead matter for food</u> but organism B <u>absorbs light to make food</u>. [1m]

32)

a)

Blood vessel S. The body produced carbon dioxide when energy was released, hence most carbon dioxide [1m] is found in the blood from the heart to the lungs.

b)

Their hearts pumps blood faster, transporting more oxygen and digested food to the required muscles to release more energy. [1m]

c)

Dan. Dan's heart rate for both resting and running are faster. [0.5m] As the blood vessel of a smoker is narrower, his heart has to pump blood faster, [1m] so as to compensate to transport sufficient oxygen to carry out his normal activities [0.5m] as compared to an healthy person.

33)

a)

Nucleus. Nucleus contains genetic materials which is passed down from parent cell to daughter cell. [1m] **OUT OF SYLLABUS**

b)

Longer structure increased exposed surface are of the roots [0.5m] to the soil. This allows the roots to absorb water from the soil at a faster rate, [1m] ensuring that the plant has enough water for photosynthesis. [0.5m]

34)

a)

1 mark

	X	Y
Carbon dioxide	less	more

b)

As the temperature of water increased from 20°C to 26°C, the breathing rate of the fish increased. [1m] As the temperature of water increased from 26°C to 30°C, the breathing rate of the fish decreased. [1m]

35)

a)

Flower : B [0.5m]
Leaf : C [0.5m]

b)

1 mark

Cut surface at <u>B</u>	Cut surface at <u>A</u>
	

	c) Both water-carrying tubes at <u>X and Y were removed, so blue-coloured water from the beaker can only be transported upwards by the remaining tubes</u> [1m] to A.
36)	a) Thickness of the strips [0.5m] Position at which paper clip with mass is placed [0.5m] b) No. Material C can <u>hold the most mass</u> before it tore, so <u>C is the strongest</u>. [1m] c) Waterproof, flexible [1m]
37)	a) There is <u>air</u> trapped which is <u>a poor conductor of heat</u>. [1m] <u>Hot water in set-up A lost heat to the cooler surroundings outside at a slower rate.</u> [1m] b) The jacket trapped a layer of <u>air which is a poor conductor of heat</u>. [1m] <u>The warm body lost heat slower to the colder surroundings</u>, [1m] keeping her warm.
38)	a) Air in the bottle escaped through hole K. Water in the basin enters the bottle through hole L. Due to <u>more water, there is more mass</u>, [1m] causing it to sink. b) <u>Air is being forced out and sea water can enter into the tank</u>. [1m] As <u>sea water has more mass than air</u>, [1m] it caused the submarine to <u>sink</u>.
39)	a) <u>Water</u> in fried noodles gained heat and <u>evaporated into hot water vapour</u> [0.5m] which then <u>lost heat to the cooler air above</u> [0.5m] and <u>condensed into water droplets</u>. [1m] b) The mist gained heat and evaporated into water vapour. [1m] c) More mist. More hot water vapour will <u>condense faster</u> [1m] to form more water droplets.

40) a) When switch is closed, electric current flows through the wire around the steel bars, [1m] causing them to become electromagnet which attracts the movable iron strip. [1m] The hammer hits the bell.

b) Reduce the number of battery to one / reduce the number of coils around the steel bars [1m]

c) There is no electric current flowing through the open circuit, [1m] so the steel bars will not be magnetized.

d) 1 mark

