ERC 2023

P6 Foundation Science

Answer Key

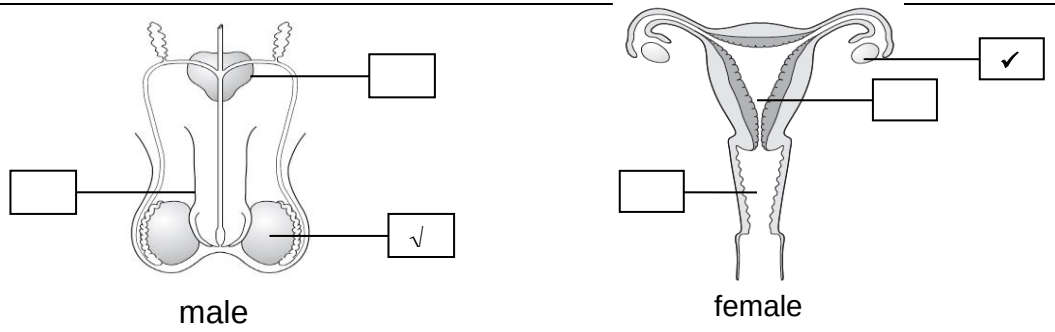
Section A

Question	Ans
1.	(3)
2.	(1)
3.	(2)
4.	(3)
5.	(1)
6.	(3)
7.	(1)
8.	(2)
9.	(2)
10.	(2)
11.	(1)
12.	(1)
13.	(2)

Question	Ans
14.	(3)
15.	(1)
16.	(3)
17.	(3)
18.	(2)

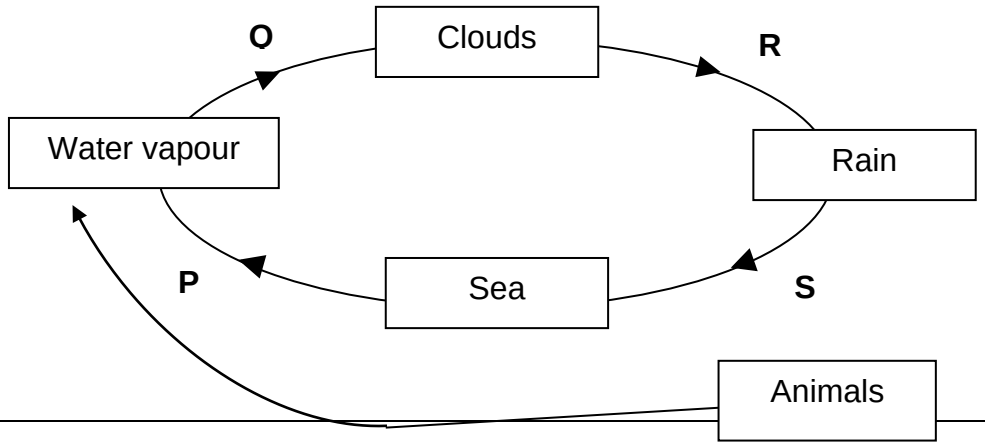
Section B

<table>
<tr><th>Qn</th><th>Acceptable Answers</th><th>Marks</th></tr>
<tr><td>19</td><td>Concept: Classify organisms based on reproduction

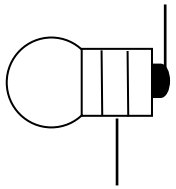
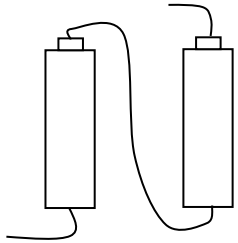
<table><tr><th>Reproduce from spores</th><th>Reproduce from seeds</th></tr><tr><td>A
C</td><td>B</td></tr></table>
3 correct – 2m
2 correct – 1m
1 correct – 0m</td><td>2</td></tr>
<tr><td>20
a</td><td>Concept: State fertilisation and name the parts
fertilisation</td><td>1</td></tr>
<tr><td>b</td><td> 

male
female</td><td>½ each</td></tr>
<tr><td>21
a
b
c</td><td>Concept: Identify populations
habitat
3
4</td><td>
1
1
1</td></tr>
</table>

<table>
<tr><th>Qn</th><th>Acceptable Answers</th><th>Marks</th></tr>
<tr><td>22</td><td>Concept: compare the functions of parts of land & water plant

<table><tr><th>Function</th><th>Part(s)</th></tr><tr><td>To make food</td><td>A, B</td></tr><tr><td>To hold the plant firmly</td><td>C</td></tr></table>3 correct – 2m
2 correct – 1m
1 correct – 0 m</td><td></td></tr>
<tr><td>23
(i)
(ii)</td><td>Concept: Properties of materials
Waterproof
Flexible / can bend</td><td>
1
1</td></tr>
<tr><td>24
a
b</td><td>Concept: State the processes in water cycle
Evaporation
Q
 
</td><td>
1
1
1</td></tr>
</table>

Qn	Acceptable Answers	Marks
25	**Concept: Compare respiratory system in plants and human**	
a	respiratory	1
b	Z	1
c	water vapour or carbon dioxide	1
26	***Concept: Read the table and state the relationship***	
(a)	As the number of leaves increases, the amount of water taken in by the plant increases.	1m
	Plant S, it has the most number of leaves to carry out photosynthesis	1m
27	***Concept: Interpret the information and infer soil with least air spaces***	
(a)	Allow water to pass through / not waterproof	1m
(b)	To prevent the soil from falling through	1m
(c)	Soil Z	1m

Qn	Acceptable Answers	Marks
(d)	The roots will absorb the water and less water will flow through	1m
28 (a)	***Concept: Connect a circuit***   ½ m for connecting to bulb ½ m each for connecting + to - batteries ½ m for connecting the sound and switch	2m
(b)	The brightness of the bulb decreases	1m
29 (a)	***Concept: Electromagnet attracts the iron pins*** decrease	1m
(b)	Rod becomes an electromagnet (½ m) Attracts the iron pins (½ m)	1m
(c)	Electromagnet not strong to attract any more iron pins	1m
(d)	Increase the number of batteries	1m

<table>
<tr><th>Qn</th><th>Acceptable Answers</th><th>Marks</th></tr>
<tr><td></td><td>Or
Increase the number of turns on the rod</td><td></td></tr>
<tr><td>30
(a)</td><td>Concept: Fair test in an experiment

<table><tr><th>Variables</th><th>Tick (✓)</th></tr><tr><td>Distance between torch and material</td><td>✓</td></tr><tr><td>Types of material</td><td></td></tr><tr><td>Thickness of materials</td><td>✓</td></tr></table></td><td>½ m each</td></tr>
<tr><td>(b)</td><td>Concept: Light should be from torch

The datalogger will capture light from the room and not from the torch only</td><td>1m</td></tr>
<tr><td>(c)</td><td>Conduct experiment in a dark room</td><td>1m</td></tr>
<tr><td>(d)</td><td>R, least amount of light can pass through so that can show image on screen</td><td>1m</td></tr>
</table>