



# TOM NEWBY SCHOOL EXAMINATION



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<b>Subject</b>	<b>Natural Science</b>	<b>Examiner</b>	<b>Miss van Copenhagen</b>
<b>Date</b>	<b>31 May 2019</b>	<b>Total marks</b>	<b>60</b>
<b>Grade</b>	<b>7</b>	<b>Duration</b>	<b>1 ½ Hours</b>
		<b>Moderator</b>	<b>Mrs Fourie</b>
<b>Special instructions/ Equipment</b>	<ol style="list-style-type: none"><li>1. Answer all the questions on the answer sheet provided.</li><li>2. Read and answer ALL questions thoroughly.</li><li>3. Write neatly and legibly in blue pen.</li><li>4. Use a pencil for any drawings.</li><li>5. Good luck! Think before you INK!</li></ol>		
This assessment has been compiled using notes and information contained in the Tom Newby School resource material. The marking memorandum has been compiled accordingly. While alternative responses will be given due acknowledgement, the official memorandum will be considered a priority document to ensure uniformity of marking.			

<b>Name:</b>	<b>Surname:</b>	<b>Class:</b>
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## **INSTRUCTIONS:**

1. This paper is made up of Section A : Life and living ( 30 marks) and Section B : Matter and Materials (30 marks)
2. Answer all the questions.
3. Write neatly and legibly.
4. Read the instructions for each question before answering.
5. All questions must be answered on the question paper.

## **SECTION A – LIFE AND LIVING [30]**

### **QUESTION 1 [5]**

Choose the correct answer from the possible answers given in each statement. Write down only the correct letter next to the relevant number.

1.1 All of life in the ocean exists in an area known as the ..... (1)

- a) Hydrosphere
- b) Atmosphere
- c) Biosphere
- d) Lithosphere

1.2 Which is NOT a process of life? (1)

- a) Excretion
- b) Reproduction
- c) Respiration
- d) Adaptation

1.3 What is an example of abiotic? (1)

- a) Plants
- b) Water
- c) Energy
- d) Animals

1.4 The pistil is a structure of the flower. It is made up of ... (1)

- a) The stigma and style
- b) The receptacle and sepal
- c) The ovary and the sticky stigma
- d) The anther and filament

1.5 Arachnids are classified to have the following body parts: (1)

- a) Six pairs of jointed legs
- b) Book lungs and they produce, silk webs
- c) Soft-bodied animals with a head and foot region
- d) A hard exoskeleton and four pairs of jointed legs.

1.1 \_\_\_\_\_ 1.2 \_\_\_\_\_ 1.3 \_\_\_\_\_ 1.4 \_\_\_\_\_ 1.5 \_\_\_\_\_

### **QUESTION 2** [5]

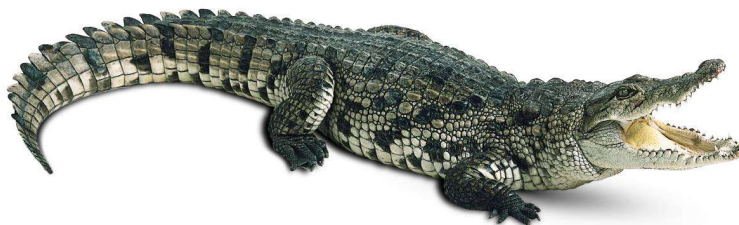
Match the given information in Column B with the term in Column A. Write the alphabet letter next to the given number in the space provided.

COLUMN A	COLUMN B
2.1 Gymnosperms	A. Example of arachnids.
2.2 Vertebrates	B. Process of scattering seeds.
2.3 Invertebrates	C. Plants that produce cones.
2.4 Scorpions	D. Animals that have no backbone.
2.5 Seed dispersal	E. Animals that have a backbone.

2.1 \_\_\_\_\_ (1) 2.2 \_\_\_\_\_ (1) 2.3 \_\_\_\_\_ (1) 2.4 \_\_\_\_\_ (1) 2.5 \_\_\_\_\_ (1)

### **QUESTION 3** [10]

3.1 Look at the image of the animal. Answer the questions.



3.1.1 What type of body covering does this animal have? (1)

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3.1.2 Is this animal cold-blooded or warm-blooded? Why do you say so? (1)

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3.1.3 What organs does this animal use for breathing ? (1)

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3.1.4 What is the type of reproduction used by this animal? (1)

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3.1.5 Name the class of this animal. (1)

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**3.2 Study the image of a plant. Answer the questions by filling in the missing information or choosing the correct answer.**



3.2.1 What kind of plant is this? A monocotyledon or a dicotyledon. (1)

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3.2.2 What kind of roots does this plant have? (1)

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3.2.3 What kind of leaves does this plant have ? (1)

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3.2.4 What is the name of this plant? (1)

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3.2.5 How many multiples of flowers will this plant have? (1)

\_\_\_\_\_

**QUESTION 4** [10]

**4.1 Complete the following sentences by filling in the correct word/s.**

4.1.1 \_\_\_\_\_ has no mechanisms for locomotion (1)

4.1.2 Animals that are cold-blooded and also moist and slimy are called...

\_\_\_\_\_ (1)

4.1.3 \_\_\_\_\_ have a body that consists of 3 parts – head, thorax and abdomen. \_\_\_\_\_ (1)

4.1.4 HIV or Human Immunodeficiency Virus attacks the

\_\_\_\_\_ (1)

4.1.5 The seeds of gymnosperms form in \_\_\_\_\_ of plants like cycads and pine trees. (1)

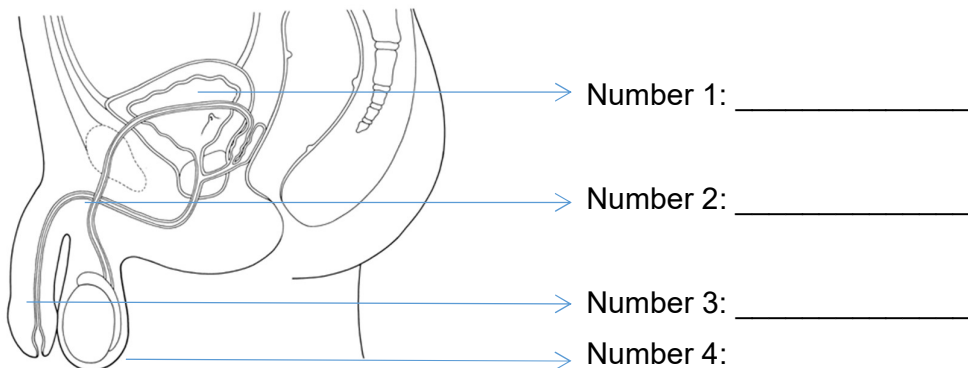
**4.2 Fill in the missing words in the statements or images below.**

4.2.1 The \_\_\_\_\_ is a male genital organ that carries sperm out of the male's body. (1)

4.2.2 \_\_\_\_\_ are chemical substances, produce by glands, that regulate the activity of certain cells or organs. (1)

4.2.3 Boys experience a growth spurt at around \_\_\_\_\_ years of age. (1)

4.2.4 Label the missing parts of the male body: (4x½ =2)



**SECTION B – MATTER AND MATERIALS [30]**

**QUESTION 5 [5]**

Identify if the following statements are **TRUE** or **FALSE**. If the statement is false, then correct the statement.

5.1 The human tongue is not an organ. (1)

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5.2 A solution is a homogeneous mixture (1)

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5.3 The best method to separate a mixture of sugar and oil is through magnetism. (1)

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5.4 The pH scale measures how strong an acid or a base is. (1)

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5.5 When we melt something, it means a liquid changes into a gas. (1)

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**QUESTION 6 [5]**

Give one word to describe the following:

6.1 Strong \_\_\_\_\_ will not bend, break or shatter easily. (1)

6.2 A good conductor of electricity that can be shaped into jewellery \_\_\_\_\_. (1)

6.3 Substances that has a sour taste and rough feel \_\_\_\_\_. (1)

6.4 Materials that cannot carry an electric current are called \_\_\_\_\_. (1)

6.5 Many fizzy cold drinks are in cans made from \_\_\_\_\_. (1)

**QUESTION 7 [12]**

Answer the following questions on mixtures/methods of physical separation:

**Lemon squash - mixture**



**Sugar Water Lemon**

7.1 List and explain two physical properties of the 'Lemon squash – mixture' seen in the image above. (2)

7.2 At what temperature does water boil? (1)

7.3 What is a mixture? (1)

7.4 If one substance is magnetic and the other substance is not, what can be used to separate the mixture? (1)

7.5 Look carefully at the Periodic table to answer the questions.

1																	18
H																	He
3	4											5	6	7	8	9	10
Li	Be											B	C	N	O	F	Ne
11	12											13	14	15	16	17	18
Na	Mg											Al	Si	P	S	Cl	Ar
19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
K	Ca	Sc	Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Zn	Ga	Ge	As	Se	Br	Kr
37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54
Rb	Sr	Y	Zr	Nb	Mo	Tc	Ru	Rh	Pd	Ag	Cd	In	Sn	Sb	Te	I	Xe
55	56	57-71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86
Cs	Ba		Hf	Ta	W	Re	Os	Ir	Pt	Au	Hg	Tl	Pb	Bi	Po	At	Rn
87	88	89-103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118
Fr	Ra		Rf	Db	Sg	Bh	Hs	Mt	Ds	Rg	Cn	Uut	Fl	Uup	Lv	Uus	Uuo
57	58	59	60	61	62	63	64	65	66	67	68	69	70	71			
La	Ce	Pr	Nd	Pm	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu			
89	90	91	92	93	94	95	96	97	98	99	100	101	102	103			
Ac	Th	Pa	U	Np	Pu	Am	Cm	Bk	Cf	Es	Fm	Md	No	Lr			

7.5.1 The elements in the Periodic table are arranged into three main categories.

Name one. \_\_\_\_\_ (1)

7.5.2 Look on the right hand side of the Periodic table. Find the symbol He.

Give the name of the element. \_\_\_\_\_ (1)

7.5.3 Where can this element (He) be used? (1)

7.5.4 Give symbols / names for the following elements

a. Hydrogen = \_\_\_\_\_ (1)

b. Magnesium = \_\_\_\_\_ (1)

c. Li = \_\_\_\_\_ (1)

d. B = \_\_\_\_\_ (1)

### **QUESTION 8** [8]

The images below illustrate the environmental impact of mining and pollution. Answer the questions using these images to assist you:



8.1 Air pollution is caused by... (1)

8.2 What does air pollution do to human life? (1)

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8.3 Give two reasons why you think party-balloons are harmful to our environment. (2)

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8.4 How long does it take for bio-degradable items to break down? (1)

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8.5 Give a short definition of recycling? (1)

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8.6 How can we help with recycling at school? Mention two ways. (2)

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**Grade 7 Natural Sciences Exam June 2019**  
**Performance Analysis**  
(For teacher use only)

**Name and Surname:** \_\_\_\_\_ **Class:** \_\_\_\_\_

**Section A (30)**

Question Number	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
Possible Mark	<b>5</b>	<b>5</b>	<b>10</b>	<b>10</b>
Learner Mark				

**Section B (30)**

Question Number	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>
Possible Mark	<b>5</b>	<b>5</b>	<b>12</b>	<b>8</b>
Learner Mark				