

BIOLOGY — 2019

PART B - ANSWER BOOKLET

Fill in the codes for the province and school and your 3-digit candidate number.

Year		Province		School			Candidate Number		
1	9								

Write your name and school in the spaces provided.

Candidate Name: _____

School Name: _____

Answers written on the QUESTION paper or any other paper will NOT be marked. Write answers in the spaces as provided on this answer booklet.

FOR MARKERS USE ONLY

	Score	Markers Initials	
		M1	M2
Part B:			
Question 31			
Question 32			
Question 33			
Question 34			
Question 35			
Question 36			
Question 37			
Question 38			
Question 39			
Question 40			
FINAL TOTAL			

Ben
26/3/19

Slynn
26/3/19

PART B - ANSWERS

Write your answer in the space provided below. Your answers must be clear and precise.

QUESTION 31

A.	<u>FUNGI</u>	1
B.	(i) <u>1</u> (ii) <u>3 or 4</u>	2
C.	<u>ORGANS</u>	1
D.	<u>fight/kill/destroy</u> <u>germs/microbes/microorganisms/pathogens/foreign bacteria or viruses</u> <u>brothels</u>	1
E.	(i) <u>NUCLEUS</u>	1
	(ii) <u>TO be able to enlarge/make b/s/amplify image on slide</u>	1
For Markers Use Only		Q31 Total

QUESTION 32

A.	<u>Loss of biodiversity (plant/animal/microbe) Accept: reduce/decrease levels of flora/fauna/ endemic species</u>	1
B.	<u># affects them when there is loss of culturally important species used for food, medicine, art, craft and tourism.</u>	1
any two	→ C. i. (a) <u>intertidal zone (littoral zone), coral reef, open ocean or sea, freshwater lake, river, streams, ponds or wetlands or marsh or mangroves.</u>	1
any two	→ ii. (a) <u>salinity, oxygen content,</u> (b) <u>depth, strength of water current + temperature</u>	1
D.	<u>There is less energy as you go up the pyramid (not enough to support large numbers).</u>	1
For Markers Use Only		Q32 Total

QUESTION 33

A.	<u>CO₂ levels</u>	1
B.	(i) <u>N</u> (accept: high temperature of 35°C)	1
	(ii) <u>There is more O₂ production at high temperature compared to low temperature</u>	
C.	(i) <u>Small intestine</u> (ii) <u>pepsin</u>	2
D.	(i) <u>Urea</u> (iii) <u>Ammonia</u>	2
For Markers Use Only		Q33 Total

QUESTION 34

A. (i)	Exclude effect of direct atmospheric evaporation.	1
(ii)	Plant Y	1
(iii)	Stomata were blocked with nail polish and fix solution with oil ^{in membrane}	1
		2
B.	Sieve tube elements	1
C.	Open circulatory system has no vessels of any sort/type.	1
D.	Fluid (accept: tissue fluid)	1
For Markers Use Only		Q34 Total

QUESTION 35

A. (i)	P has a lower/smaller female population compared to Q at age 75.	1
(ii)	P	1
(iii)	Its the reproductive age range seen in developing countries (according to smads).	1
B. (i)	<div style="border: 1px solid black; padding: 10px; width: fit-content; margin: 0 auto;"> $\% \text{ Cover} = \frac{20 \text{ m}}{50 \text{ m}} \times 100 = 40\%$ <p style="text-align: center;"> └───┘ └───┘ 1 mark 1 mark </p> </div>	2
(ii)	Sampling areas must be randomly chosen.	1
(iii)	Usually ^{organisms} animals (or plants) that cannot move (stationary), or move very slowly or sedentary animals (Accept: examples of animals like plants, snails, sea urchins, sea cucumbers, sponges, sea shells, nematodes)	1
For Markers Use Only		Q35 Total

QUESTION 36

A.	R: <u>Glucose or Sugar</u>	s. <u>H₂O or water</u>	2
B.	(i) <u>Respiratory surfaces must come in contact with the external environment.</u>		1
	(ii) <u>Circulatory system must be in close proximity to the respiratory system.</u>		1
C.	<u>The end-products of photosynthesis (eg. Sugar + O₂) are used as raw materials in respiration.</u>		1
D.	<u>Krebs Cycle or Citric Acid Cycle or Tricarboxylic Acid Cycle (TCA)</u>		1
E.	<u>Cristae</u>		1
For Markers Use Only			Q36 Total

QUESTION 37

A.	(i) <u>Abstinence</u>	(ii) <u>Rhythm ^{Rhythm} method or withdrawal method</u>	2
B.	<u>Ovule</u>		1
C.	<u>Luteinising Hormone (LH)</u>		1
D.	<u>In-vitro fertilization (IVF)</u>		1
E.	<u>Cervical Cancer</u>		1
F.	<u>Because of the continuous use of HAART (anti-retroviral drug). [HAART's activity on the virus, increases the survival time for the patient.]</u>		1
For Markers Use Only			Q37 Total

QUESTION 38

A.	(i). T: <u>Brain or Spinal Cord</u>	1
	(ii) Function of U: <u>Axon send nerve impulses away from cell body to the axon terminals</u>	1
B.	Name: <u>Hydrotropism</u>	1
	Explanation: <u>The roots are curved towards the moist soil in response to water.</u>	1
C.	<u>Adrenal</u>	1
D.	V: <u>Sound</u>	1
E.	<u>Action potential is generated when more sodium ions diffuse into the axon interior.</u>	1
For Markers Use Only		Q38 Total

QUESTION 39

A.	(i) <u>phosphate (phosphoric acid)</u> (ii) <u>sugar (5C sugar or deoxyribose)</u>	2
B.	(i) <u>Metaphase (accept: metaphase I)</u>	1
	(ii) <u>Gametes (or sex cells) - Accept: haploid daughter cells</u>	1
C.	(i) <u>Vector (accept: carrier)</u>	1
	(ii) <u>Human</u>	1
D.	<u>The environment.</u>	1
For Markers Use Only		Q39 Total

QUESTION 40

A.	<u>non-random mating</u>	1
B.	<u>Reproduce (basically contribute their genetic make-up)</u>	1
C.	<u>Microevolution</u>	1
D.	<u>Genetic Drift</u>	1
E.	<u>Jean-Baptiste de Lamarck (accept: surname only)</u>	1
F.	<u>From the ocean (accept: sea or watery environment)</u>	1
G.	<u>Dinosaurs (Accept: primitive reptiles)</u>	1
For Markers Use Only		Q40 Total