

Section B

Text 2

In the text below, a botanist saves a young girl from a snake in the Amazon.

Read it carefully and answer Questions 5-15 in the Question Booklet.

- 1 Nathan Rand was on his way back to the village after an early morning of gathering medicinal plants when he heard her screams. He dropped his specimen bag and ran to her aid. As he sprinted, he shrugged his short-barrelled shotgun from his shoulder. When alone in the jungle, one always carried a weapon. Before him, a boundless sea of green spread to the horizon in all directions. It was as if the entire world were just forest. The only breaks in the featureless expanse of the continuous canopy were the occasional giant trees that poked their leafy crowns above their brethren, great monsters of the forest that served as nesting sites for birds. Otherwise, the jungle remained supreme, impenetrable, endless. 5
- 2 He pushed through a fringe of dense foliage and finally spotted the snake and the girl. Its black scales shone wetly. It must have been lurking under the surface when the girl had come to collect water from the river. Biting his lip, he searched through his weapon's sight. He had no clean shot, not with the child wrapped in the muscular coils of the predator. 10
- 3 He tossed his shotgun aside and reached for the machete at his belt. Unhitching the weapon, Nathan lunged forward but as he neared, the snake rolled and pulled the girl under the black waters of the river. Her screams ended and bubbles followed her course. Without thinking, Nathan dove in after her. Holding his breath, he searched through the muddy waters and spotted the surge of coils ahead. A pale limb waved. With a kick of his legs, he reached out to the small hand, snatching it up in his large grip. Small fingers clutched his in desperation. 15
- 4 Then the dark waters swirled, and he found himself staring into the red eyes of the giant snake. It had sensed the challenge to its meal. Its black maw opened and struck at him, jaws snapped like a vice onto his arm. Though its bite was non-poisonous, the pressure threatened to crush Nathan's wrist. Ignoring the pain and his own mounting panic, he brought his other arm around, aiming for the snake's eyes with his machete. The giant anaconda rolled in the water, throwing Nathan to the silty bottom and pinning him. Nathan felt the air squeezed from his lungs as four hundred pounds of scaled muscle trapped him. He struggled and fought, but he found no purchase in the slick river mud. The girl's fingers were torn from his grip as the coils churned her away from him. 20 25
- 5 He abandoned his machete and pushed with his hands against the weight of the snake's bulk. His shoulders sank into the soft muck of the riverbed, but still he pushed. For every coil he shoved aside, another would take its place. His arms weakened, and his lungs screamed for air. Nathan Rand knew in this moment that he was doomed - and he was not particularly surprised. He knew it would happen one day. It was his destiny, the curse of his family. 30
- 6 But as Nathan remembered the heartbreak of losing his father, rage flamed through his chest. Cursed or not, he refused to follow in his father's foot-steps. He would not allow himself simply to be swallowed by the jungle without a trace. Screaming out the last of the trapped air in his chest, Nathan shoved the anaconda's bulk off his legs. Freed for a moment, he swung his feet under him, sinking into the mud up to his ankles, and shoved straight up. His head burst from the river, and he gulped a breath of fresh air, then was dragged by his arm back under the dark water. This time, Nathan did not fight the strength of the snake. Holding the clamped wrist to his chest, he twisted into the coils, managing to get a choke hold around the neck of the snake with his other arm. With the beast trapped, Nathan dug his left thumb into the snake's nearest 35 40

eye. The snake writhed, tossing Nathan momentarily out of the water, then slamming him back down. He held tight.

- 7 He bent his trapped wrist enough to drive his other thumb into the snake's remaining eye. He pushed hard on both sides, praying his basic training in reptile physiology proved true. Pressure 45 on the eyes of a snake should trigger a gag reflex via the optic nerve. He pressed harder, his heartbeat thudding in his ears. Suddenly the pressure on his wrist released, and Nathan found himself flung away with such force that he half sailed out of the river and hit the riverbank with his shoulder. He twisted around and saw a pale form float to the surface of the river, facedown in midstream. 50
- 8 As he had hoped, the visceral reflex of the snake had released both prisoners.

Section C

Text 3

The article below is coral and the colour associated with it. Read it carefully and answer Questions 16 – 22 in the Question Booklet.

- 1 The colour forecasters at Pantone¹ declared Living Coral the colour of 2019. In its press release, the company described this orangey pink hue as 'vibrant, yet mellow', providing 'warmth' and 'comfort', being 'full of life'. Reading the bitterly ironic release is a bit disconcerting, considering the continued annihilation we are inflicting on this organism and the small animals that live in coral reefs. 5
- 2 Coral may be that year's official colour, but its history stretches a good way back. The ancient Greeks did not view coral as a living thing: to them, coral was as dead as stone. Since then, our understanding of coral has grown by leaps and bounds. The Romans figured that coral was not a stone, and in the first century AD, Pliny the Elder suggested that coral belonged to a group with sea nettles and sea sponges, 'neither animals nor plants, but possessed of a third nature'. In the early eleventh century, Persian scientist and scholar Al-Biruni observed that coral is responsive, as it shied away from the graze of a hand. In the eighteenth century, William Herschel examined coral cells under a microscope, saw that the cells did not look like plant cells—they lacked a thick membrane—and deduced that coral was an animal. A colourful, mysterious animal, but an animal nonetheless. 10 15
- 3 For most of human history, man has used coral for jewellery as much as we used emeralds, wood, and ivory. The favoured colour for European jewellers has always been that vivid orangey pink. While coral exists in many shades, we often associate it most strongly with that juicy hue which falls somewhere between the shade of a ripe papaya and a summer watermelon. This breed of coral is called *Corallium rubrum*, primarily found in the Mediterranean but also along the coasts of Japan and Taiwan, growing in sea caves and shallow straits. In the wild, coral looks matte—it is only after being polished by human hands that it develops its characteristic shine. 20
- 4 People have been harvesting coral for thousands of years. A somewhat ubiquitous substance, the animal thrives in areas where the sea is warm, clear, and salty. Even though coral reefs only cover 0.1% of the earth's surface, their undulating multi-coloured surface has inspired legends and myths around the globe, from India to Italy. In Hindu astrology, coral is associated with Mars, and jewellery made from the gem is supposed to help the wearer triumph over anxiety and adversity. Coral features in numerous Hawaiian myths, and is traditionally associated with Kane, the god of procreation. The Shinto sea god, Ryujin, was said to reside in an underwater palace made of delicately carved coral. Pliny the Elder believed coral helped protect men against the machinations of temptresses. In Christian tradition, coral is said to symbolise the blood of Christ. Contemporary New Age types still recommend coral for enhancing fertility, promoting inner peace, and helping cleanse one's blood and bones. 25 30 35
- 5 Like other precious materials, coral has dipped in and out of fashion in our modern world, while retaining a stalwart group of fans. Coral's popularity peaked in the 1920s, and again in the seventies, it became a trendy accessory for hippies. Over the past century, rising demand lead to the destruction of coral reefs in the Philippines, the Mediterranean, and Japan. Where there were coral 'trees' of up to two feet tall there are now one-inch stubs. Coral harvesting has transformed underwater forests into barren plains. Though there are laws in place against overharvesting, they are poorly enforced. Fashion giants like Dior and Cartier continue to use coral in their jewellery but concerns about its scarcity have led others in the industry to 40

reconsider their choices. Some, including Tiffany & Co., have stopped using coral, while others have elected to only work with vintage pieces. 45

6 Such efforts may not matter – ordinary people are killing coral every day. It happens when we press down on the gas pedal, board a plane, or flick on the light switch. Ocean acidification and climate change are bleaching the coral reefs, and a white reef is a dead reef. Since 2016, over half of the Australian Great Barrier Reef, once considered the most stable and protected reef system in the world, has died. 50

7 But perhaps this is what makes Living Coral a fitting colour for our times. It is a bittersweet hue, the colour of dead creatures and mystical protection. Global warming feels crushingly huge, its magnitude tipping us away from action and toward despair. Living Coral, bright and happy, feels like a dose of visual hope, whether we deserve it or not. There may also be hope for coral. Scientists are currently collecting coral spawn to regrow dead sections of the Great Barrier Reef. We do not yet know how the project will turn out. Maybe we will fail to replenish the coral. But maybe we will be able to re-fertilise the once-vibrant forests. Maybe coral will flourish across the ocean floor once more. And maybe, someday, we will be able to quit our addiction to stolen colours and leave this 'gemstone' alone. 55

¹Pantone: the organisation that created a colour matching and standardisation system which is used worldwide.

Copyright acknowledgements:

Text 1 Adapted from <https://www.gofundme.com/f/titan-robotics-worlds-fund>,
<https://obamawhitehouse.archives.gov/blog/2011/10/07/google-science-fair-winners-visit-white-house>

Text 2 Adapted from James Rollins; *Amazonia*; 2002

Text 3 Adapted from Living Coral, the Brutal Hue of Climate Change and Brand New iPhones by Katy Kelleher

Section B [20 marks]

Refer to Text 2 on pages 3 – 4 of the Insert for Questions 5 - 15.

- 5 Suggest a reason why there is a need to carry a weapon 'when alone in the jungle' (lines 3-4).

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[1]

- 6 At the beginning of the text, Nathan observes the jungle he was in. Explain what the language tells the reader about the characteristics of the forest. Support your ideas with **three** details from Paragraph 1.

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[3]

- 7 In Paragraph 2, we are told Nathan was 'biting his lip' (line 11) as he looked at the snake.

- (a) What does this behaviour tell us about how Nathan was feeling?

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[1]

- (b) Suggest a reason for him feeling this way.

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[1]

- 8 In Paragraph 3, the writer says, 'Holding his breath, he searched through the muddy waters and spotted the surge of coils ahead. A pale limb waved' (lines 16-17). What effect does the writer create by using a longer sentence followed by a shorter one?

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[1]

- 9 Give **two** details from Paragraph 4 which show that the snake was much stronger than Nathan. **Answer in your own words.**

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[2]

- 10 In Paragraph 4, Nathan was 'Ignoring the pain and his own mounting panic' (line 22). What does this tell you about Nathan's character?

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[1]

- 11 In Paragraph 5, the writer says, 'For every coil he shoved aside, another would take its place' (lines 29-30). Explain why this is effective in describing the snake's action.

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[1]

- 12 In Paragraph 6, Nathan continues to battle the snake. Which phrases from lines 36 – 40 describe Nathan's actions?

| Descriptions | Phrases from the passage |
|-------------------------------|--------------------------|
| (i) gathering momentum | |
| (ii) a counter-intuitive move | |
| (iii) getting a firm grip | |

[3]

- 13 Why did Nathan pray that his basic training in reptile physiology proved true?

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[1]

- 14 In Paragraph 7, Nathan 'saw a pale form float to the surface of the river, facedown in midstream' (lines 49-50). What does this suggest about the state of the girl?

[1]

- 15 The structure of the text reflects Nathan's mood at different stages of his encounter with the snake. Complete the flowchart by choosing one phrase from the box to summarise his dominant mood in each part of the text. There are some extra phrases in the box you do not need to use.

Nathan's dominant mood

| | | |
|---------------|--------------|---------|
| desperation | apprehension | urgency |
| anger | defeat | |
| determination | relief | |

Paragraphs 1—3 : (i)



Paragraphs 4—5 : (ii)



Paragraphs 6—7: (iii)



Paragraph 8: (iv)

[4]

Section C [25 marks]

Refer to Text 3 on page 5 - 6 of the Insert for Questions 16 – 23.

- 16 With reference to Paragraph 1, explain the irony in describing the colour coral as 'full of life' (line 3).

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[2]

- 17 With reference to Paragraph 2, explain how coral was discovered to be responsive. Answer in your own words.

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[1]

- 18 Why is 'juicy hue' (line 19) an effective description of the colour of *Corallium rubrum*?

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.....

[1]

- 19 Here is part of a conversation between two people, Lee and Anna, who have read the article.



Lee

I think all the coral reefs will die off.

I'm not so sure. I think The Great Barrier Reef may be saved.



Anna

- (a) Identify **two** reasons from Paragraph 6 that Lee can give to support his view.

(i)

(ii) [2]

(b) With reference to Paragraph 7, how would Anna explain her position?

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..... [1]

20 In line 53, the writer uses the phrase 'whether we deserve it or not'. What does this phrase suggest about her attitude towards humans' actions?

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..... [1]

21 What effect does the writer create by repeating the word 'maybe' in lines 56 to 58?

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..... [1]

22 Why do you think the writer puts inverted commas in the text round the word 'gemstone' (line 59)?

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..... [1]

Your summary must be in continuous writing (not note form). It must not be longer than 80 words (not counting the words given to help you begin).

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.