READING

READING
Total duration: 60 minutes

READING PASSAGE 1
You should spend about 20 minutes on **Questions 1-13** which are based on Reading Passage 1 below.

One October afternoon, a young New Zealander, Sam Tobin, called his dogs and went for a walk down to the nearby Ruamahanga River. Having been very high for days, the river had at last fallen, and Tobin was eager to see what changes the floods had brought. The family farm borders the river and a four-metre-high flood bank testifies to its natural tendency to flood.

Tobin stepped out onto a broad shoulder of river sand, where he noticed what he initially took to be a whitish rock, lit by the sun. Then, getting closer, he realised it was a bone. Such a thing was not uncommon in these parts-he had often come across bone fragments, or even whole skeletons, of cows and sheep. But as he scraped aside the stones he realised it was a human bone, something quite new in his experience. As he picked it up, he saw it was a skull, discoloured with age.

Tobin replaced the skull and hurried hime to tell his mother what the river had delivered to their doorstep. It would prove to be a spectacular find, setting in motion an investigation by some of the country's most respected specialists, and ultimately challenging our most firmly held assertions about the human settlement of New Zealand.

The police were immediately called, but despite a thorough search could find nothing that might shed light on the identity of the Ruamahanga skull, or the circumstances of its sudden appearance. The skull was then taken north to be examined by forensic pathologist Dr Ferris, at Auckland Hospital. Despite being hampered by its damaged and incomplete condition- the jawbone and lower left portion of the cranium were missing- Dr Ferris determined that the skull was that of a female. He then consulted with a colleague, Dr Koelmeyer, who believed that the deterioration of the bone placed the time of death before living memory' and, most significantly as it would turn out, the skull appeared to be European in origin. Wellington-based forensic anthropologist Dr Watt also examined the skull, and suggested it belonged to a 40-45 year-old. He believed that it could be the remains of an old farm burial, but was not certain, and proposed the use of radiocarbon dating to make sure it wasn't a recent death. As a result, the Institute of Geological and Nuclear Sciences (GNS) in Lower Hutt was contacted, and provided with a sample of bone that had originated in the top of the skull. In a little over three weeks the seemingly astonishing results from the GNS laboratory came back. Cutting through the bewildering complexity of the scientific analysis was a single line reading: conventional radiocarbon age approximately 296 years. This was staggering, for the skull was about 200 years older than Dr Koelmeyer had believed.

Of course, a skull of this age wasn't particularly unusual in New Zealand. The Maori people have been living in the country for at least 800 years and scientists frequently come across human remains of considerable age. The fascinating question, however, was how a skull of this race, let alone this gender, had reached these remote islands in the South Pacific at such a time, long before the arrival of the explorer Captain Cook in 1769, and perhaps even before the very first European landfall- the fleeting visit of the Dutch explorer Tasman in 1642- neither of whom had women among their crews.

The first known European women in the Pacific came with a doomed colonising venture which sailed from Peru in 1595 under the command of Spanish captain Mendana. However, it is unlikely the Ruamahanga skull originated from this expedition because no evidence of Mendana's ships has ever been found in New Zealand, while a team of archaeologists working in the Solomon Islands in 1970 did discover the remains of European vessels dating from the 16th century.

Two centuries were to pass before the first recorded European females arrived in New Zealand, both having escaped from prison in Australia. Kathleen Hagerty and Charlotte Edgar are known to have reached the country in 1806. How do we account for the Ruamahanga skull, which appears to be about
100 years older than that? It is impossible to say with certainly, but the most likely explanation is that a Spanish or Portuguese trading-hip was washed onto these wild shores as a resul of a shipwreck and a woman got ashore. Implausible, perhaps, but the Ruamahanga skull, today resting in the Wellington Museum, could be the kind of concrete evidence that demands such a re-evaluation of history.

QUESTIONS 1-4
Do the following statements agree with the views of the writer in Reading Passage 1?
In boxes **1-4** on your answer sheet, write
YES if the statement agrees with the views of the writer
NO if the statement contradicts with the views of the writer
NOT GIVEN if it is impossible to say what the writer thinks about this

1 The Ruamahanga River often floods.
2 When Tobin first found the object in the river, he mistook it for something else.
3 Tobin could not decide what part of the body the bone came from.
4 Tobin's mother was surprised that the skull caused debate among specialists.

QUESTIONS 5-9
Complete the flowchart below.

Choose **NO MORE THAN TWO WORDS AND/OR A NUMBER** from Passage 1 for each answer.
Write your answer in boxes 5-9 on your answer sheet.

The events after the river flooded
Stage 1: Tobin found a human skull
Stage 2: The (5) _____were initially involved in trying to explain the presence of the skull.
Stage 3: Dr Ferris believed the skull belonged to a female
Stage 4: Dr Koelmeyer suggested it was a (6) _____skull .
Stage 5: Dr Watt recommended (7) _____to establish the skull's age.
Stage 6: A bone (8) _____was sent to the GNS.
Stage 7: The age of the skull was about (9) _____years.

QUESTIONS 10-13
Complete the notes below.
Choose **ONE WORD ONLY** from the passage for each answer.
Write your answers in boxes 10-13 on your answer sheet.

The problem of the skull's origins
-Old bones common in NZ- Maori living there for 800 years
-Ruahahanga skull surprising because of its:
+ age
+ (10) _____
+ gender

Mendana expedition
-Possible source of skull
-But probably did not visit NZ
-Evidence of this expedition found elsewhere by (11) _____

New Zealand
-First European explorer arrived in 1642

-Hagerty and Edgar arrived in 1806 from (12) _____where they had been imprisoned

Possible solution

-Ruamahange skull may have reached NZ in 17th century after a (13) _____

READING PASSAGE 2

You should spend about 20 minutes on **Questions 14-26** which are based on Reading Passage 2 below.

Finding Our Way

A

"Drive 200 yards, and then turn right," says the car's computer voice. You relax in the driver's seat, follow the directions and reach your destination without error. It's certainly nice to have the Global Positioning System (GPS) to direct you to within a few yards of your goal. Yet if the satellite service's digital maps become even slightly outdated, you can become lost. Then you have to rely on the ancient human skill of navigating in three-dimensional space. Luckily, your biological finder has an important advantage over GPS: it does not go awry if only one part of the guidance system goes wrong, because it works in various ways. You can ask questions of people on the sidewalk. Or follow a street that looks familiar. Or rely on a navigational rubric: "If I keep the East River on my left, I will eventually cross 34th Street." The human positioning system is flexible and capable of learning. Anyone who knows the way from point A to point B – and from A to C – can probably figure out how to get from B to C, too.

B

But how does this complex cognitive system really work? Researchers are looking at several strategies people use to orient themselves in space: guidance, path integration and route following. We may use all three or combinations thereof. And as experts learn more about these navigational skills, they are making the case that our abilities may underlie our powers of memory and logical thinking. Grand Central, Please Imagine that you have arrived in a place you have never visited – New York City. You get off the train at Grand Central Terminal in midtown Manhattan. You have a few hours to explore before you must return for your ride home. You head uptown to see popular spots you have been told about: Rockefeller Center, Central Park, the Metropolitan Museum of Art. You meander in and out of shops along the way. Suddenly, it is time to get back to the station. But how?

C

If you ask passersby for help, most likely you will receive information in many different forms. A person who orients herself by a prominent landmark would gesture southward: "Look down there. See the tall, broad MetLife Building? Head for that – the station is right below it." Neurologists call this navigational approach "guidance," meaning that landmark visible from a distance serves as the marker for one's destination.

D

Another city dweller might say: "What places do you remember passing? … Okay. Go toward the end of Central Park, then walk down to St. Patrick's Cathedral. A few more blocks and Grand Central will be off to your left." In this case, you are pointed toward the most recent place you recall, and you aim for it. Once there you head for the next notable place and so on, retracing your path. Your brain is adding together the individual legs of your trek into a cumulative progress report. Researchers call this strategy "path integration." Many animals rely primarily on path integration to get around, including insects, spiders, crabs and rodents. The desert ants of the genus Cataglyphis employ this method to return from foraging as far as 100 yards away. They note the general direction they came from and retrace their steps, using the polarization of sunlight to orient themselves even under overcast skies. On their way back they are faithful to this inner homing vector. Even when a scientist picks up an ant and puts it in a totally different spot, the insect stubbornly proceeds in the originally determined direction until it has gone "back" all of the distance it wandered from its nest. Only then does the ant realize it has not succeeded, and it begins to walk in successively larger loops to find its way home.

E

Whether it is trying to get back to the anthill or the train station, any animal using path integration must keep track of its own movements so it knows, while returning, which segments it has already completed.

As you move, your brain gathers data from your environment – sights, sounds, smells, lighting, muscle contractions, a sense of time passing – to determine which way your body has gone. The church spire, the sizzling sausages on that vendor's grill, the open courtyard, and the train station – all represent snapshots of memorable junctures during your journey.

F

In addition to guidance and path integration, we use a third method for finding our way. An office worker you approach for help on a Manhattan street corner might say: "Walk straight down Fifth, turn left on 47th, turn right on Park, go through the walkway under the Helmsley Building, then cross the street to the MetLife Building into Grand Central." This strategy, called route following, uses landmarks such as buildings and street names, plus directions – straight, turn, go through – for reaching intermediate points. Route following is more precise than guidance or path integration, but if you forget the details and take a wrong turn, the only way to recover is to backtrack until you reach a familiar spot, because you do not know the general direction or have a reference landmark for your goal. The route-following navigation strategy truly challenges the brain. We have to keep all the landmark and intermediate directions in our head. It is the most detailed and therefore most reliable method, but it can be undone by routine memory lapses. With path integration, our cognitive memory is less burdened; it has to deal with only a few general instructions and the homing vector. Path integration works because it relies most fundamentally on our knowledge of our body's general direction of movement, and we always have access to these inputs. Nevertheless, people often choose to give route-following directions, in part because saying "Go straight that way!" just does not work in our complex, man-made surroundings.

G

Road Map or Metaphor? On your next visit to Manhattan, you will rely on your memory to get around. Most likely you will use guidance, path integration and route following in various combinations. But how exactly do these constructs deliver concrete direction? Do we humans have, as an image of the real world, a kind of road map in our heads – with symbols for cities, train stations and churches; thick lines for highways; narrow lines for local streets? Neurobiologists and cognitive psychologists do call the portion of our memory that controls navigation a "cognitive map." The map metaphor is obviously seductive: maps are the easiest way to present geographic information for convenient visual inspection. In many cultures, maps were developed before writing, and today they are used in almost every society. It is even possible that maps derive from a universal way in which our spatial-memory networks are wired.

H

Yet the notion of a literal map in our heads may be misleading; a growing body of research implies that the cognitive map is mostly a metaphor. It may be more like a hierarchical structure of relationships. To get back to Grand Central, you first envision the large scale – that is, you visualize the general direction of the station. Within that system, you then imagine the route to the last place you remember. After that, you observe your nearby surroundings to pick out a recognizable storefront or street corner that will send you toward that place. In this hierarchical, or nested, scheme, positions and distances are relative, in contrast with a road map, where the same information is shown in a geometrically precise scale.

Questions 14-18

Use the information in the passage to match the category of each navigation method (listed **A-C**) with the correct statement.

*Write the appropriate letters **A-C** in boxes **14-18** on your answer sheet.*

NB *You may use any letter more than once*

A Guidance
B Path integration
C Route following

14 Using basic direction from starting point and light intensity to move on.
15 Using a combination of place and direction heading for the destination.
16 Using an iconic building near your destination as orientation.
17 Using a retrace method from a known place if a mistake happens.
18 Using a passing spot as reference for a new integration.

Questions 19-21

Choose the correct letter, **A**, **B**, **C** or **D**.
Write your answers in boxes **19-21** on your answer sheet.

19 What does the ant of ***Cataglyphis*** respond if it has been taken to another location according to the passage?

A Changes the orientation sensors improving
B Releases biological scent for help from others
C Continues to move by the original orientation
D Totally gets lost once disturbed

20 Which of the followings is true about "cognitive map" in this passage?

A There is no obvious difference contrast by real map
B It exists in our head and is always correct
C It only exists under some cultures
D It was managed by brain memory

21 Which of the following description of way findings correctly reflects the function of the **cognitive map**?

A It visualizes a virtual route in a large scope
B It reproduces an exact detail of every landmark
C Observation plays a more important role
D Store or supermarket is a must in the map

Questions 22-26

Do the following statements agree with the information given in Reading Passage 2?
*In boxes **22-26** on your answer sheet write*
TRUE if the statement is true
FALSE if the statement is false
NOT GIVEN if the information is not given in the passage

22 Biological navigation has a state of flexibility.
23 You will always receive a good reaction when you ask direction.
24 When someone follows a route, he or she collects comprehensive perceptional information in mind on the way.
25 Path integration requires more thought from brain compared with route-following.
26 In a familiar surrounding, an exact map of where you are will automatically emerge in your head.

READING PASSAGE 3

You should spend about 20 minutes on **Questions 27-40** which are based on Reading Passage 3 below.

Decision, Decision!

Research explores when we can make a vital decision quickly and we need to proceed more deliberately

A

A widely recognised legend tells us that in Gordium (in what is now Turkey) in the fourth century BC an oxcart was roped to a pole with a complex knot. It was said that the first person to untie it would become the king of Asia. Unfortunately, the knot proved impossible to untie. The story continues that when confronted with this problem, rather than deliberating on how to untie the Gordian knot. Alexander, the famous ruler of the Greeks in the ancient world, simply took out his sword and cut it in two – then went on to conquer Asia. Ever since the notion of a 'Gordian solution' has referred to the attractiveness of a simple answer to an otherwise intractable problem.

B

Among researchers in the psychology of decision making, however, such solutions have traditionally held little appeal. In particular, the 'conflict model' of decision making proposed by psychologists Irving Janis and Leon Mann in their 1977 book, Decision Making, argued that a complex decision-making process is essential for guarding individuals and groups from the peril of 'group-think'. Decisions made without thorough canvassing, surveying, weighing, examining and reexamining relevant information and options would be suboptimal and often disastrous. One foreign affair decision made by a well-known US political leader in the 1960s is typically held us as an example of the perils of inadequate thought, whereas his successful handling of a water crisis is cited as an example of the advantages of careful deliberation. However, examination of these historical events by Peter Suedfield, a psychologist at the University of

British Columbia, and Roderick Kramer, a psychologist at the Stanford Graduate School of Business, found little difference in the two decision-making processes; both crises required and received complex consideration by the political administration, but later only the second one was deemed to be the effective.

C

In general, however, organizational and political science offers little evidence that complex decisions fare better than simpler ones. In fact, a growing body of work suggests that in many situations simply 'snap' decisions with being routinely superior to more complex ones – an idea that gained widespread public appeal with Malcolm Gladwell's best-selling book Blink (2005).

D

An article by Ap Dijksterhuis of the University of Amsterdam and his colleagues, Making the Right Choice: the Deliberation-without-attention Effect', runs very much in the spirit of Gladwell's influential text. Its core argument is that to be effective, conscious (deliberative) decision making requires cognitive resources. Because increasingly complex decisions place increasing strain on those resources, the quality of our decisions declines as their complexity increases. In short, complex decisions overrun our cognitive powers. On the other hand, unconscious decision making (what the author refer to as 'deliberation without attention') requires no cognitive resources, so task complexity does not Effectiveness. The seemingly counterintuitive conclusion is that although conscious thought enhances simple decisions, the opposite holds true for more complex decisions.

E

Dijksterhuis reports four Simple but elegant studies supporting this argument. In one, participants assessed the quality of four hypothetical cars by considering either four attributes (a simple task) or 12 attributes (a complex task). Among participants who considered four attributes, those who were allowed to engage in undistracted deliberative thought did better at discriminating between the best and worst cars. Those who were distracted and thus unable to deliberate had to rely on their unconscious thinking and did less well. The opposite pattern emerged when people considered 12 criteria. In this case, conscious deliberation led to inferior discrimination and poor decisions.

F

In other studies, Dijksterhuis surveyed people shopping for clothes ('simple' products) and furniture ('complex' products). Compared with those who said they had deliberated long and hard, shoppers who bought with little conscious deliberation felt less happy with their simple clothing purchase but happier with the complex furniture purchases. Deliberation without attention actually produced better results as the decisions became more complex.

G

From there, however, the researchers take a big leap. They write: There is no reason to assume that the deliberation-without-attention effect does not generalize to other types of choices – political, managerial or otherwise. In such cases, it should benefit the individual to think consciously about simple matters and to delegate thinking about more complicated matters to the unconscious.

H

This radical inference contradicts standard political and managerial theory but doubtless comforts those in politics and management who always find the simple solution to the complex problem an attractive proposition. Indeed, one suspects many of our political leaders already embrace this wisdom.

I

Still, it is there, in the realms of society and its governance, that the more problematic implications of deliberation without attention begin to surface. Variables that can be neatly circumscribed in decisions about shopping lose clarity in a world of group dynamics, social interaction, history and politics. Two pertinent questions arise. First, what counts as a complex decision? And second, what counts as a good outcome?

J

As social psychologist Kurt Lewin (1890 – 1947) noted, a 'good' decision that nobody respects is actually bad, his classic studies of decision making showed that participating in deliberative processes makes people more likely to abide by the results. The issue here is that when political decision-makers make mistakes, it is their politics, or the relationship between their politics and our own, rather than psychology which is at fault.

K

Gladwell's book and Dijksterhuis's paper are invaluable in pointing out the limitations of the conventional wisdom that decision quality rises with decision-making complexity. But this work still tempts us to believe that decision making is simply a matter of psychology, rather than also a question of politics, ideology and group membership. Avoiding social considerations in a search for general appeal rather than toward it.

Questions 27-31

Choose the correct letter, **A**, **B**, **C** or **D**.

Write your answers in boxes **27-31** on your answer sheet.

27 The legend of the Gordian knot is used to illustrate the idea that

A anyone can solve a difficult problem

B difficult problems can have easy solutions

C the solution to any problem requires a lot of thought

D people who can solve complex problems make good leaders

28 The 'conflict model' of decision making proposed by Janis and Mann requires that

A opposing political parties be involved

B all-important facts be considered

C people be encouraged to have different ideas

D previous similar situations be thoroughly examined

29 According to recent thinking reinforced by Malcolm Gladwell, the best decisions

A involve consultation

B involve complex thought

C are made very quickly

D are the most attractive option

30 Dijksterhuis and his colleagues claim in their article that

A our cognitive resources improve as tasks become more complex

B conscious decision making is negatively affected by task complexity

C unconscious decision making is a popular approach

D deliberation without attention defines the way we make decisions

31 Dijksterhuis's car study found that, in simple tasks, participants

A were involved in lengthy discussions

B found it impossible to make decisions quickly

C were unable to differentiate between the options

D could make a better choice when allowed to concentrate

Questions 32-35

Complete the summary using the list of words **A-I** below.

Write the correct letter, **A-I**, in boxes **32-35** on your answer sheet.

Dijksterhuis's shopping study and its conclusions

Using clothing and furniture as examples of different types of purchases, Dijksterhuis questioned shoppers on their satisfaction with what they had bought. People who spent **32**…….. time buying simple clothing items were more satisfied than those who had not. However, when buying furniture, shoppers made **33**…….. purchasing decisions if they didn't think too hard. From this, the researchers concluded that in other choices, perhaps more important than shopping. **34**…… decisions are best made by the unconscious. The writer comments that Dijksterhuis's finding is apparently **35**…… but nonetheless true.

A more **B** counterintuitive **C** simple

D better **E** conscious **F** obvious

G complex **H** less **I** worse

Questions 36-40

Do the following statements agree with the views of the writer in Reading Passage 3?

In boxes **36-40** on your answer sheet, write

YES if the statement agrees with the views of the writer

NO if the statement contradicts the views of the writer

NOT GIVEN if it is impossible to say what the writer thinks about this

36 Dijksterhuis's findings agree with existing political and management theories.

37 Some political leaders seem to use deliberation without attention when making complex decisions.

38 All political decisions are complex ones.

39 We judge political errors according to our own political beliefs.

40 Social considerations must be taken into account for any examination of decision making to prove useful.