



Practice Test 2



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INTRODUCTION

UMAT is a test of general reasoning ability and is designed to provide a measure of your aptitude for the study of medicine and the health professions.

The purpose of UMAT is to assess the general skills and abilities developed over the course of your education and life experience that are considered by the universities to be important to the study and practice of medicine and the health sciences. To operate most effectively in these career areas graduates will need to be flexible; to have good thinking skills (critical and analytical); to be able to respond quickly to new situations and problems; and to have a well developed ability to understand and respond to patients' needs and individual situations. For these reasons UMAT has been developed as a test that is not based on learned academic curriculum or study of particular subjects, but as a test of your response to stimuli that will not necessarily be familiar. UMAT is designed to complement academic achievement and to give universities a more rounded picture of applicants to assist them in selection decisions. Most UMAT user universities also require shortlisted applicants to attend an interview.

UMAT is not based on any curriculum or subject areas; therefore you do not need any special knowledge. Intensive preparation is not advisable or necessary, although wide and critical reading may provide helpful preparation for Sections 1 and 2. However, as with any test, some practice in answering questions of a similar type, and under similar time constraints as those found in the real test, is helpful and reassuring to most candidates. It is also helpful to practise using a machine-readable answer sheet similar to the one in the actual test.

STRUCTURE AND CONTENT OF UMAT

UMAT is divided into three separately timed Sections designed to measure ability in the following areas:

Section 1 – Logical Reasoning and Problem Solving

Questions in this Section are based on a brief text or piece of information presented graphically. In the test there are 44 questions to be answered in 65 minutes. For each question you are to decide which of the four options given is the correct answer, **based only on the information given**. The questions assess your ability to comprehend, draw logical conclusions, reach solutions by identifying relevant facts, evaluate information, pinpoint additional or missing information, and generate and test plausible hypotheses.

Section 2 – Understanding People

Section 2 assesses the ability to understand and reason about people. Questions are based on a scenario, dialogue or other text representing specific interpersonal situations. The questions will assess your ability to identify, understand, and, where necessary, infer the thoughts, feelings, behaviour and/or intentions of the people represented in the situations. In the test there are 40 questions to be answered in 50 minutes.

Section 3 – Non-verbal Reasoning

Questions in this Section may be of several kinds. All are based on patterns or sequences of shapes and are designed to assess your ability to reason in the abstract and solve problems in non-verbal contexts. In the test there are 38 questions to be answered in 50 minutes.

All UMAT questions are in multiple choice format. This means that each question has four or five possible responses, from which you are to select the **one** answer you think is correct or best. There is only one correct response.

GENERAL ADVICE ON TAKING UMAT

In addition to gaining familiarity with actual UMAT questions, working through the *UMAT Practice Test* will help you in building your general test-taking skills. It will help you to:

- build a positive attitude
- be prepared and confident
- use your time wisely
- develop your test-taking strategies
- apply strategies for answering multiple-choice questions
- check your answers

Before the test day

Build a positive attitude

Part of your preparation for UMAT is to develop a confident attitude. This will also help you in controlling any pre-test nerves and give you the best chance of doing well.

Focus on positive thoughts about the test, not negative ones. Be aware that although the topic or subject matter may be new to you, the questions will not depend on any knowledge of the particular subject matter or information provided in the stimulus material. UMAT questions are designed to assess your ability to respond to new and unknown situations and problems, and to use the skills you have built up over the whole span of your life and education. You should keep in mind that questions are not based on any particular subject knowledge that you might bring to the test. Questions are based solely on the information contained in the stimulus material, and success depends on your ability to use your skills of reasoning and problem solving to reach a solution. So, even if the topic of a question is new to you, this should not affect your ability to apply your general skills to find the answer.

Be prepared

There are two key aspects to being prepared:

1 Find out in advance as much as possible about the test.

Most importantly, you should read the *UMAT Information Booklet* thoroughly as it contains all the essential information you need to take the test and interpret your results. It is also a good idea to consult the UMAT webpage at http://umat.acer.edu.au from time to time, for information updates and answers to frequently asked questions.

You should know:

- how long the test takes (how much time allowed for each Section);
- the rules you will be expected to follow during the test; and
- the type and number of questions in each Section.

2 Make sure you know the practical details.

You should know:

- when you will receive your Admission Ticket;
- your test centre address and reporting time allowed (on the Admission Ticket);
- documents you must take with you on the day;
- equipment you will need for the test (pencils and eraser);
- items you are prohibited from taking into the test; and
- how to complete your answer sheet and mark your answers.

All this information can be found in the UMAT Information Booklet.

On the day of the test

Allow yourself plenty of time to get to the test centre. This is particularly important if you are taking the test in one of the major capital cities (especially Melbourne and Sydney) which attract very large numbers of candidates. Traffic congestion is likely around the entrance to the test centre. Avoid arriving at the test centre feeling flustered or anxious.

Do not forget to eat breakfast and, depending on the reporting time at your designated centre, you may wish to eat a small snack before you go into the test room. You will not be allowed to take any food or drink, other than bottled water, into the test room.

Remember that the test will take $2\frac{3}{4}$ hours, plus time for all candidates to be seated and instructions to be read. You should expect to be at the test centre for 4 to $4\frac{1}{2}$ hours in total.

Once you are seated in the test room:

Use your time wisely

- Take a moment to settle in and focus on the task ahead; use the waiting time to consciously relax.
- Listen carefully to instructions given by the test supervisor.
- Read the written instructions on the front cover of your test book.
- **Take note** of the finishing time of each test Section as it is announced. Finishing times will be written up on the whiteboard at the front of the room. (Remember that each Section is separately timed and you are not allowed to move to another Section until instructed to do so.)

Apply your test-taking strategies

- Once you have been told to begin work on a Section, scan through the whole Section first to familiarise yourself with the kinds and number of questions.
- Note where on the answer sheet you must record your answers to the questions in this Section.
- When you are ready to begin, read each piece of stimulus material and its related question/s carefully before selecting your preferred answer. Be aware that there is only one correct response to each question.
- You may find it helpful to underline key information on the test book.
- Start from the beginning, but do not spend too much time on any question you are finding difficult. You may choose to skip such questions and come back to them later to reconsider. If you decide to skip a question, it would be a good idea to mark it in the test book so you can check it later. (Do not put any stray marks on your machine-readable answer sheet.) If you skip a question you should also make sure all subsequent answers are placed against the correct question number on the answer sheet.
- Remember that if you mark two responses to any question it will be considered wrong. If you decide to change an answer, make sure to erase it completely before filling in your new choice on the answer sheet.
- Keep track of the time and try to pace yourself evenly through the Section.
- If possible allow a few minutes at the end of the Section to review and check over your answers. (The supervisor will announce when there are 10 minutes remaining.)
- Answer as many questions as possible. (Remember that marks are not deducted for wrong answers.)
- <u>Never</u> mark your answers in the test book with the intention of transferring them to the answer sheet later. Answers should be recorded directly onto the answer sheet. Transferring answers from the test book to the answer sheet wastes time, and there is the chance of not leaving sufficient time at the end of the Section to complete the transfer.

UMAT PRACTICE TEST

UMAT Practice Test is made up of previously used UMAT questions selected to provide examples of the kinds and style of questions you will find in the test. The *UMAT Practice Test* is equivalent to a full test and you are advised to allow yourself the following times to complete each Section:



Tear out the answer sheet at the end of this book and mark your answers on this as you would in the real test. Do not look at the correct answers given on the final page until you have completed all three Sections.

When answering a question,

- read all response options carefully, even if you think you know the answer.
- eliminate responses you know are wrong.
- if none of the alternatives given seems to be correct, re-read the question and try to work out what you have missed. There is always one correct choice.

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UNDERGRADUATE MEDICINE AND HEALTH SCIENCES ADMISSION TEST

Practice Test 2

Test time: 165 minutes Total number of questions: 122

The test consists of three sections.

Section 1 44 questions 65 minutes

Section 2 40 questions 50 minutes

Section 3 38 questions 50 minutes

- Attempt all questions.
- Do not spend too much time on any one question.
- Mark the **one** answer you think is best for each question.
- Incorrect answers, unanswered questions and questions for which more than one answer has been marked are given a score of zero.
 - If you decide to change an answer, erase it completely and mark your new answer clearly.

SECTION 1 Logical Reasoning and Problem Solving Que

Questions 1 – 44

For each question, decide which answer is correct based only on the information given.

Question 1

In the Mohs scale for the hardness of minerals, a mineral will scratch only those below it on the scale (i.e. those with a higher number will scratch any with a lower number).

Human fingernail has a hardness of about 2.5.

The mineral acerite scratches fingernail, but does not scratch orthoclase.

The mineral georgite is scratched by acerite, but not by fingernail.

- 1 This means that
 - A georgite will scratch calcite but will not scratch apatite.
 - **B** *apatite* may be harder than *georgite* but softer than *acerite*.
 - C calcite may be harder than acerite but softer than georgite.
 - **D** if *georgite* scratches *fluorite* it will scratch *apatite*.

10	DIAMOND
9	CORUNDUM
8	TOPAZ
7	QUARTZ
6	ORTHOCLASE
5	APATITE
4	FLUORITE
3	CALCITE
2	GYPSUM
1	TALC

Question 2

Early in 1998, fires destroyed 30 000 square kilometres of forest – an area the size of Belgium – in Borneo. This is almost six times the extent of previous official estimates, and is bigger than the area burnt on the island during the previous year's more heavily publicised fires.

The 1998 fires appear to have spread from palm-oil plantations and raged despite a large fire-fighting effort by the authorities. They lasted from late January to May, when heavy rains extinguished most of them. Some coal seams and peat bogs are still burning underground.

- 2 From this information it follows that
 - A estimates of the size of the 1997 fires originally put them at almost six times the size of Belgium.
 - **B** at the beginning of 1998 fires started the previous year were still burning underground.
 - C the fires in 1997 appear to have started from burning operations in palm-oil plantations.
 - **D** an early estimate of the area damaged by fire in Borneo in 1998 was about one-sixth the area of Belgium.

Question 3

Inhabitants of Nuristan speak a variety of languages and dialects. The *Siah Posh*, or Black-robed Kafirs, inhabit the north and east. They speak different dialects of Bashguli, and all apparently understand one another. In the centre and the south live the *Safed Posh*, or White-robed Kafirs. Two of their three tribes, the Wai and the Parun, speak different languages that are mutually unintelligible, and unintelligible to all of the Siah Posh. The exception to this is one small group of the Wai, who speak a dialect containing elements of Bashguli and Parun. It is not clear whether the third tribe of the Safed Posh – the Ashkun – can understand, or be understood by, speakers of any of the other languages.

- 3 From this information, which of the following is best supported?
 - A A northern Nuristani is likely to be able to understand a Parun.
 - **B** There are Black-robed Kafirs who can understand and be understood by the Parun.
 - C Some Wai are able to understand and be understood by most of the Black-robed Kafirs.
 - **D** All White-robed Kafirs can converse with any Bashguli-speaker who can also converse with a Wai.

Question 4

Plants are not defenceless against attack. Harmful micro-organism intruders can set off responses in a plant that will protect it against further damage. How do plants recognise and deal with harmful intruders? Scientists have discovered in cotton hundreds of proteins (known as *resistance proteins*) involved in this defence. One part of a molecule of such a protein recognises particular intruders as being harmful. The other part sends a message to cell nuclei, which then trigger a variety of responses.

One response, known as the *hypersensitive* response, is the self-destruction of cells, which often prevents the further spread of an intruder. Another, more subtle, response is the production of antimicrobial compounds called *phytoalexins*, which are toxic to the intruder concerned. A third response is the production of proteins, such as chitinase and glucanase, that attack the cell walls of intruders, such as fungi. (The cell walls of fungi contain chitin and glucan.) Finally, plant cells may strengthen their own walls, impeding further entry of the harmful intruder, and trapping those intruders already present in the cells. These cells will then self-destruct.

- 4 According to this information, which of the following is the best conclusion?
 - A The hypersensitive response involves the production and release of substances toxic to intruding micro-organisms.
 - **B** Phytoalexins are manufactured to attack harmful micro-organisms that have previously been recognised by a resistance protein.
 - **C** In one response to intruding micro-organisms, plants use chitin and glucan to strengthen their cell walls against further invasion, or to prevent the escape of micro-organisms already present.
 - **D** All of the possible responses by plants to intrusion by harmful micro-organisms involve the self-destruction of plant cells in their immediate vicinity.



Question 5

Animals repeatedly subjected to harmless stimuli often learn to stop responding to them – a process known as *habituation*. Two groups of rats put through ten trials initially responded vigorously to loud noises made in their vicinity. The rats in one of the groups had been injected with hydrocortisone, which is known to prevent the secretion of adrenocorticotrophic hormone (ACTH). Average responses of the groups are shown in the graph.



- 5 Which of the following is most strongly supported by the results of the experiment?
 - A It is likely that either ACTH increases the level of arousal in response to stimuli or hydrocortisone decreases it.
 - **B** It is likely that hydrocortisone increases the level of arousal in response to stimuli, regardless of any effect it may have on ACTH.
 - **C** The longer rats are exposed to harmless noise, the less they respond.
 - **D** It is likely that ACTH decreases the level of arousal in response to stimuli.

Question 6

In a study carried out in London, saliva samples were taken from volunteers every hour throughout the day from the time they awoke. It was found that the amount of cortisol, a hormone associated with high stress levels, was significantly higher in each sample taken from the volunteers who woke early (before 7:30 am) than in the samples of those who woke late (after this time). The volunteers had been free to wake at a time that they liked and all had slept for similar numbers of hours.

- 6 Of the following, these findings would least support the conclusion that
 - A a high level of cortisol causes people to wake early.
 - **B** the fear of waking late raises cortisol levels.
 - **C** waking early causes high cortisol levels.
 - **D** waking late increases cortisol levels.

Question 7

On the island of Blamania, two-thirds of the males are married to three-quarters of the females. Each marriage is between two people only, one male with one female.

- 7 It can be said with certainty that
 - just two of Blamania's females are not married. А
 - B fewer Blamanian males than females are unmarried.
 - С less than one-third of the Blamanian population is unmarried.
 - D the total population of Blamania is more than twice the number of married Blamanians.

Question 8

Infants with sleep disorders are often treated with behavioural therapies. However, some sleep disorders result from chemical imbalances affecting the brain that can only be treated with medication that will reduce or correct the imbalance.

- 8 It follows that
 - most sleep disorders are not the result of chemical imbalances in an infant's brain. Α
 - В behavioural therapy reduces the symptoms, but not the causes, of sleep disorders in infants.
 - С medication is always more effective than behavioural therapy in treating infants' sleep disorders.
 - D behavioural therapy does not alter chemical imbalances in the brains of infants with some sleep disorders.

Question 9

Consider the following diagram concerning the languages spoken by the world's population.



fewer than 0.3% speak one of the 3340 least spoken languages

From the information provided it can be concluded that

- approximately 45% of the world's languages have more than 10 000 speakers.
- B approximately 45% of the world's languages have fewer than 10 000 speakers.
- С the 20 most spoken languages are spoken by more than 99.7% of the world's population.
- the percentage of all languages with more than 10 000 speakers is approximately the same as D the percentage of all people who speak those languages.

Question 10

This graph shows the age differences for all couples who married during 1997.



10 Which one of the following statements applies to the ages of the couples who married in 1997?

- A More than 80% of the bridegrooms were older than their brides.
- **B** For about 78% of all couples, the partners were not of the same age.
- C There was an age difference of three years for about 11% of all couples.
- **D** For the majority of couples, there was an age difference of more than four years.

Question 11

Drinking wine appears to decrease the risk of coronary heart disease. The *antioxidant hypothesis* suggests that this is due to certain substances that are found in wine, especially in red wine.

Consider the following two possibilities:

- I Wine drinking is associated with a generally healthy lifestyle.
- II Red- and white-wine drinking are each associated with a similar decrease in the risk of coronary heart disease.
- 11 If true, which of I and II would support the antioxidant hypothesis?
 - A I only
 - **B** II only
 - C both I and II
 - **D** neither **I** nor **II**

Question 12

The diagrams below show who runs small businesses by gender and age.



- **12** Together, these two diagrams indicate that
 - A about 10% of business managers older than 50 are female.
 - **B** the typical small-business manager is likely to be a male aged over 50.
 - C at most, about 20% of business managers aged between 30 and 50 are female.
 - **D** it is possible that none of the female business managers are aged between 30 and 50.

Question 13

Bon-bons are party packages that come in boxes of twelve. In each box, half of the bon-bons are green and half are red. In each box equal numbers of bon-bons contain either a plastic whistle, a clicker or a blow-out. Equal numbers also contain a copy of one of four jokes.

13 In a box of bon-bons, there

- A must be one or more green bon-bons containing a blow-out.
- **B** can be no more than four bon-bons containing a whistle and either joke 1 or joke 4.
- **C** can be as many as six red bon-bons containing a clicker and either joke 2 or joke 3.
- **D** will be more red bon-bons containing joke 1 or 2 than green bon-bons containing a whistle.

Question 14

In the following figure, the number of smileys (S) adjacent to a numbered square (including diagonally adjacent) is indicated by the number in that square. The pattern either side of the central 3 \times 5 rectangle is repeated indefinitely.

x and y can be either smileys or numbers.

							1	1	1								
1	1	1	1	1	1	1	2	\odot	2	1	1	1	1	1	1	1	
v	1	x	y	1	x	у	3	?	3	у	x	1	у	x	1	у	
1	1	1	1	1	1	1	2	0	2	1	1	1	1	1	1	1	

4 In this figure, the ? in the central square

- A must be a 2.
- **B** must be an \mathbf{x} if each \mathbf{y} is a 1.
- $\mathbf{C} \qquad \text{must be a } \mathbf{y} \text{ if each } \mathbf{x} \text{ is a smiley.}$
- **D** cannot be a smiley.



Question 15

Consider these three propositions:

- I Of the ten most poisonous spiders in the world, Australia has nine of them.
- II Australia has the world's nine most poisonous spiders.
- III Of the ten most poisonous spiders in Australia, nine are the world's most poisonous.
- 15 From this information it follows that even if
 - A proposition I is true, proposition II need not be true.
 - **B** proposition **II** is true, proposition **I** need not be true.
 - **C** proposition **II** is true, proposition **III** need not be true.
 - **D** proposition **III** is true, proposition **II** need not be true.

Question 16

According to the World Conservation Union's recently published 'Red List', more than 11 000 species of plants and animals face extinction in the near future, in most cases as a result of loss of habitat. This includes about 24% of mammal species and 12% of bird species living at present.

The list identifies 180 mammal species in the highest risk category – 'critically endangered' – and 340 in the next risk category – 'endangered'. This compares with 169 and 315 in those categories just four years earlier. For birds, the situation is 182 species critically endangered and 321 endangered, compared with an earlier 168 and 235.

- 16 According to this information, which of the following is the best conclusion?
 - A A greater number of mammal species are critically endangered than are bird species.
 - **B** In the year of the report's publication, there were just over 2600 mammal species still living.
 - C If it were true that in the four years leading to the publication of the report no bird species had become extinct, the percentage of endangered and critically endangered bird species would have increased by about $2\frac{1}{2}$ %.

8

D In the four years leading to the publication of the report, the ratio of critically endangered to endangered species has decreased for birds but remained almost the same for mammals.

Question 17

A

Consider these two scales, which are balanced:



B



Question 18

In a recent study, predictions that middle-class educated women would be more likely than working-class women to complete successful negotiations for a change in the distribution of housework were not validated. However, the study did support the hypothesis that tertiary-educated men would respond more positively than other men to any overtures their wives made for assistance.

The study also provided support for the view that increasing women's earning power significantly increases their negotiating power. In particular, women whose earnings were substantial were somewhat more likely to be married to men who took some responsibility for housework than were women whose earnings were much less than those of their husbands. Nevertheless, a majority of the husbands (62%) whose wives were providing between one-third and two-thirds of the household income failed to provide the level of participation in housework their wives were seeking.

- **18** From this information it follows that
 - A when a wife's income increases, there is a high chance that she will be successful in persuading her husband to do a larger share of the housework.
 - **B** a man's income production is more important than his level of education in determining whether his wife will be successful in encouraging him to increase his share of household duties.
 - C working-class wives proved to be less successful than anticipated in encouraging their husbands to do more of the housework.
 - **D** a woman's income production is more important than her level of education in determining whether she will be successful in encouraging her husband to increase his share of household duties.

Question 19

In each of three boxes, Eve puts two hats: two black hats in the first box, two white hats in the second, and a black hat and a white hat in the third. She labels the boxes as shown.



Carol then changes all the labels around so that no box is labelled correctly.

- 19 Can Eve determine the contents of all three boxes by looking into just one box?
 - A Yes, by looking in either BB or WW, but not by looking in BW.
 - **B** Yes, by looking in BW, but not by looking in BB or WW.
 - C Yes, and it does not matter which box she looks in.
 - **D** No, she must look in at least two of the boxes.



Questions 20 – 22

A game is played with two four-sided dice. Each side of each die is marked by one of each of these four symbols: \triangle , \Box , \bigcirc or \checkmark .

Each symbol represents a different number, either 1, 2, 3 or 4. The numbers are randomly allocated to a symbol at the start of each game.

The players take turns to throw the dice and move their counter along the playing board shown, according to the total value of their throw.

• (\triangle, \bigstar) represents a \triangle on die 1 and a \bigstar on die 2; (\bigcirc, \bigcirc) represents a \bigcirc on both dice, etc.

L 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19

20 On their first turns, Felicia throws (a, a) and Mal throws (\Box, \Box) .

On their second turns, Felicia throws (A, \Box) and Mal throws (Δ, \bigcirc). Felicia is now on position 11.

Who is closest to position 20 after their second turn?

- A Felicia
- B Mal
- C Felicia and Mal equally
- **D** It is not possible to determine who is closest to position 20.
- 21 On their first turns, Bill moves to position 3 after throwing $(\triangle, \diamondsuit)$ and Freya moves to position 5 after throwing (\bigstar, \Box) .

On their second turns, Bill throws (\bigcirc, \Box) and Freya throws (\triangle, \bigcirc) .

Who is closest to position 20 after their second turn?

- A Bill
- **B** Freya
- C Bill and Freya equally
- **D** It is not possible to determine who is closer to position 20.
- **22** Joshua throws $(\Box, \Box), (\Box, \triangle), (\bigstar, \bigstar), (\bigcirc, \Box)$ and (\Box, \bigstar) and moves to position 20.

If $\Box = 1$, then which one of the following is true of A?

- A It is greater than both \triangle and \bigcirc .
- **B** It is less than both \triangle and \bigcirc .
- **C** It could be greater than \triangle and less than \bigcirc .
- **D** It could be greater than \triangle , \bigcirc , and \square .



Question 23

Events are better remembered if they trigger some level of emotional arousal. In a study investigating this tendency in relation to the *ADRA2B* gene, two groups of people (one with the standard gene and one with a variant of it) were shown three types of photographic images: those that typically elicit either a positive emotion (e.g. children playing), a negative emotion (e.g. a polluted river), or no particular emotion (e.g. a chair).

The level of arousal the images elicited in the participants during viewing was measured. After some time, the people's memory of the images was tested.

The graphs below present the participants' recall of the emotion-arousing images relative to their recall of the neutral images.



- 23 Which of the following is most strongly suggested by the data?
 - A Any effect of the *ADRA2B* variant on memory is **not** caused by increasing arousal.
 - **B** Emotionally arousing images are better remembered than neutral ones, but only for people with the *ADRA2B* variant.
 - **C** Arousal is greater in people with the *ADRA2B* variant, which enables negative images to be remembered better than positive images.
 - **D** The increased arousal elicited by negative images, compared to positive images, is enhanced in people with the *ADRA2B* variant, but this does **not** affect recall of the images.

Question 24

Of the 24 dogs attending puppy school

- six are small;
- twelve are brown;
- fifteen have long hair;
- one is small and brown and has long hair;
- two are small and brown but their hair is **not** long;
- two are small and have long hair but they are **not** brown.

24 How many dogs attending puppy school are brown and have long hair, but are not small?

- A two
- **B** three
- C four
- **D** It is not possible to determine this from the information given.



Questions 25 – 28

А

B

С

D

Consider the following rules that could be used in order to select one shape from pairs of shapes:

- Rule I Select the left shape.
- Rule II If one of the shapes is grey, select that shape.
- Rule III If both shapes are grey, select the left shape; otherwise select the right shape.
- Rule IV If one or both shapes are grey, select the left shape; otherwise select the right shape.
- Rule V If the left shape is grey, select the left shape; otherwise select the right shape.

The shape that has been selected is indicated by a black arrow under the shape.

25 Which of the rules could be used to make this selection?



26 Suppose that a selection has been made using either just Rule IV or just Rule V.

For which one of the following pairs of shapes would it be possible to determine which one of these two rules had been used in making this selection?

A a white triangle and a white square
B a white triangle and a grey square
C a grey triangle and a white square
D a grey triangle and a grey square

27 Suppose that a new rule is used to make the four selections shown below.



Which one of the following new rules would produce these four selections?

- A Select the left shape if either or both of the shapes are grey, otherwise select the right shape.
- **B** Select the left shape unless just one of the shapes is grey, in which case select the right shape.
- **C** Select the right shape if the triangle is white or the square is grey or both, otherwise select the left shape.
- **D** Select the right shape if the triangle is white or the square is grey but not both, otherwise select the left shape.
- 28 Other rules may need to be considered if two selections are made one after the other.
 - Rule VI Select the shape on the opposite side to the first selection.
 - Rule VII If the first shape selected is grey, select the shape on the same side as the first selection, otherwise select the shape on the opposite side.

After selection 1 has been made, which of Rules VI and VII could be used to make selection 2?



Questions 29 – 31

While some forms of cholesterol are not harmful to humans, an excess of the form known as LDL is believed to increase the likelihood of heart disease, obesity and diabetes. A link between a high-fat diet and raised cholesterol levels has long been noted. However, in the natives of Greenland a high-fat diet (seal, whale and fish) is not associated with these conditions. These people have lower LDL levels than comparable groups of Danish people eating a typical Western diet based on dairy foods and meat.

Nutritionists believe that there are substances, known as omega-3 and omega-6 fatty acids, found in the food of the Greenland natives that explain the difference. These fatty acids are also found in plant sterols. Two recent studies have investigated the effect of plant sterols on LDL.

Study I One hundred men and women with normal cholesterol levels or mild hypercholesterolaemia were given varying amounts of sterols, in food spreads, for 24 days: 0.0 g/day (as a placebo), 0.83 g/day, 1.61 g/day or 3.24 g/day.

In the groups that took sterols, there was a reduction ranging from 6.6 to 9.9% in the level of LDL. There was no significant difference in the average reduction between those who took the three different levels of sterols. There was no significant reduction in LDL in the control group.

Study II Twenty-two hypercholesterolaemic men and women were given, for 28 days, either a placebo or 2.4 g/day of sterols. The sterols were taken as a combination of food spread (0.8 g/day), bread (0.8 g/day) and cereal (0.8 g/day).

There was an average 10.4% reduction in LDL for those that took sterols, but no significant reduction for the others.

Note:

- A *placebo* is a 'pretend' treatment, with no known effect on a particular disorder.
- The prefix 'hyper-' means 'in an elevated or excessive amount'.
- The suffix '-aemia' refers to the blood.
- A control group is used for comparison with groups who have some form of treatment.
- **29** A hypercholesterolaemic person has
 - A too much cholesterol in their diet.
 - **B** elevated blood pressure due to excessive cholesterol.
 - **C** too much cholesterol in their blood.
 - **D** lowered sterol levels due to excessive cholesterol.
- 30 In Study I, the control group
 - A was given the placebo.
 - **B** was given nothing at all.
 - **C** had normal cholesterol levels.
 - **D** had the same reduction in LDL as those who took sterols.
- 31 Considering the results of Study I and Study II, of the following, the best conclusion is that
 - A sterols are ineffective at lowering normal levels of LDL.
 - **B** the longer sterols are taken, the greater their effect on LDL levels.
 - **C** the minimum dose of sterols can have maximum impact on LDL levels.
 - **D** adding sterols to foods other than spreads greatly increases their effectiveness at lowering LDL.

Questions 32 - 34

In the 2×2 grid shown at right, each square is coloured differently from each adjacent square. (Squares diagonally opposite each other are also considered to be adjacent.) Four different colours are needed. Suppose that on this map of mainland Australia, 32 Vic. is coloured green. The map designer colours each adjacent state a different colour, but keeps the number of colours used to a minimum. Qld WA Which other state(s) are also coloured green? SA NSV NT A В WA and Qld С any one of NT, WA or Qld D any two of NT, WA or Qld

33 Suppose that black, red, green and white are used to colour each square of a 3×3 grid a different colour to every adjacent square.

When the top left square is black and the top right square is red, the colour of the bottom left square

- A must be red.
- **B** must be black.
- **C** can be either red or black.
- **D** can be any of red, black, green or white.
- 34 Suppose that four colours are used to colour each square of a 4×4 grid a different colour to every adjacent square.

The fewest squares possible of any of the four colours is

- A one.
- **B** two.
- C three.
- **D** four.



Questions 35 – 37

When grains of two different sizes (e.g. two different sands) are mixed together and then poured down a vertical wall, a slope forms down which further added grains tumble. A model of this phenomenon has been developed that uses grains of two different shapes – square $(1 \times 1 \text{ unit in size})$ and rectangular $(1 \times 2 \text{ units})$. The model's rules governing the tumbling of the grains are as follows:

- As they are poured one at a time, the grains stack onto the first column next to the wall (with rectangular grains upright).
- If a grain is added to the first column such that the step down to the next column is **more than three units** high, the grain tumbles down the slope from column to column until it reaches a stable position, i.e. where the height difference to the next column does not exceed three units.
- If a grain does not reach a stable position on the slope and tumbles all the way to the bottom, an *avalanche* occurs.
- In an avalanche, any grain on the top of any column tumbles if the step to the next column is **more than two** units high. It continues to tumble until it reaches a position where the step is no more than two units high. All such grains tumble simultaneously.
- Once all grains that could initially tumble in an avalanche have completed their tumbling, any further grains that are now able to tumble will do so. This process continues until all steps are two or less units high.

In the example shown in Figure 1, the rectangular grain \mathbf{x} added to the first column will tumble to the bottom of the slope. This triggers an avalanche, after which the grains \mathbf{y} and \mathbf{z} are in the positions shown in Figure 2.



- **35** For the situation shown in Figure 1, if a square grain were added instead of a rectangular grain, the grain would come to rest
 - **A** on the first column.
 - **B** on the second column.
 - **C** on the third column.
 - **D** at the bottom of the slope.

36 Which one of the following is **not** a possible configuration of grains?



37 In the situation shown below, a rectangular grain, w, has just been added and has tumbled to the bottom.



Which one of the following shows the situation after the ensuing avalanche?







Questions 38 - 40

Many structures are made from a grid of squares. In order to be structurally sound, the grid must be rigid. This can be achieved by adding a diagonal brace to some of the squares. To determine the minimum number of braces needed, a dot diagram can be used.

A dot diagram uses dots to represent the row and column coordinates of each square in the grid:

- The left-hand dots represent the grid's rows and the right-hand dots represent the grid's columns.
- Lines in the dot diagram represent those squares that contain a brace. Each line connects the dots that represent the coordinates of a single braced square.

For example, Figure 1 shows a 2×3 grid of six squares, four of which ([1,1], [1,2], [2,2] and [2,3]) contain diagonal braces. Figure 2 is the corresponding dot diagram. The square at Row 1, Column 1 is braced, and thus represented in the dot diagram by the line connecting the Row 1 and Column 1 dots. The other braced squares are similarly represented.



A grid will be rigid if all the dots of its dot diagram are connected by a single complex of lines. The 3×3 grid represented in Figure 3 has a single complex; that represented in Figure 4 has two separate complexes.

Figure 3 Figure 4 18

38 What is the minimum number of braced squares required to make rigid a 4×4 grid?

- А seven
- B eight
- С nine
- D ten
- Consider the grid shown below. 39



This grid's rigidity

- requires all the braces shown. A
- will not be affected if any one of the six braces is removed. B
- С will not be affected if the brace in square [2,1] or square [2,3] is removed.
- D will not be affected if the brace in any one of squares [1,3], [1,4], [2,3] or [2,4] is removed.

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Consider the two grids I and II shown below. 40



Which one of the following is true of these two grids?

- А I is rigid, II is not rigid.
- B II is rigid, I is not rigid.
- С Both I and II are rigid.
- D Neither I nor II is rigid.

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Questions 41 and 42

Mouse cytomegalovirus (MCMV) is a virus that spreads among European species of mice through animal-toanimal contact. It cannot live outside live mice, and does not infect Australia's native mouse species. It is not fatal to the mice it infects, and occurs in some 80% of the European mice in Australia.

In an effort to control severe European mouse plagues in this country, scientists have modified MCMV to include a protein, ZP3, that is found on the surface of European mouse eggs. After a female mouse has been infected with the modified virus, her immune system, naturally primed to attack foreign substances, including normal MCMV, will attack the ZP3 on the surface of her own eggs, rendering her infertile.

- 41 This mouse control method works because
 - A female mouse eggs are attacked by MCMV.
 - **B** ZP3 is treated by the female mouse as a foreign substance.
 - **C** the young of infected mice are immune to ZP3, but any offspring they have will be sterile.
 - **D** the female mouse's immune system is sensitised to treat some of her own MCMV as foreign.
- 42 Suppose that the following were found:
 - I Modified MCMV is much less contagious than unmodified MCMV.
 - II ZP3 does not occur on the surface of Australian native mouse eggs.

Some people have concerns that releasing the modified MCMV virus into the wild poses a potential health risk to Australian native mice.

Which of I and II could be used to support these concerns?

- A I only
- **B** II only
- C both I and II
- **D** neither **I** nor **II**

Questions 43 and 44

A study was carried out of 300 booking clerks at a large US airline. Of these clerks, 100 were smokers, 100 used to smoke but no longer did, and 100 had never smoked. The groups were called '*smokers*', '*ex-smokers*' and '*never smoked*', respectively. It was found that 'smokers' were absent because of illness for an average of 6.16 days a year, while 'ex-smokers' lost 4.53 days, and 'never smoked' lost 3.86 days.

The work output (sales income, rate of answering calls, and so on) of the three groups showed that the productivity of the 'smokers' was 4.0% below 'never smoked' and 8.3% below 'ex-smokers'.

- 43 When measuring performance in terms of absences due to illness and of output while at work, the data show that
 - A both measures were best for 'never smoked' individuals.
 - **B** 'ex-smokers' performed best on both measures.
 - C 'ex-smokers' had more absences due to illness, but higher productivity while at work than 'never smoked'.
 - **D** 'ex-smokers' had fewer absences due to illness, but lower productivity while at work than 'never smoked'.
- 44 Suppose that the work output of an 'ex-smoker' while at work was given a value of 100 units. Which of the following values would then be most consistent with the other data?
 - A 104 units for 'never smoked'
 - **B** 96 units for 'never smoked'
 - C 96 units for 'smokers'
 - **D** 87 units for 'smokers'

END OF SECTION 1

STOP

DO NOT CONTINUE UNTIL YOU ARE TOLD TO DO SO

SECTION 2

Understanding People

Questions 45 – 47

In this excerpt from a novel, Lannie is reminiscing about the time Fred brought their sons to visit the clinic where she was being treated for her depression.

They had been bored. They had asked her to come back. She had said, 'I will if you'll help me.' And Fred had said, 'Now, now, Lannie, you know I won't have the boys turned into housewives.' The youngest, who was nearly twelve and already taller than his mother, had begged his father to let them go look round the town and find a hamburger and a video arcade. When they had gone Fred said, 'You can see how they miss you.'

'Not really,' she replied, watching her husband's eyes shift.

'Don't you love them?'

'Of course I love them.'

'Then why don't you come home?'

'I don't think they love me. They just miss what I do for them. I want a life. Just a bit of a life outside the kitchen and the wash-house.'

'Not much wash-house.' It was a grim piece of jocularity. 'The tanks are just about empty.'

Peeved, Lannie lost it. She began to yell.

'Then you'd want me to go down to the creek hole and beat the bloody clothes on rocks while I utter little orgiastic cries of pleasure and the other wives look on and say, "I want to do what she's doing"?'

'Jesus, you're disgusting!' Fred said. 'Bloody disgusting. You're not being like the other wives now. They don't make unreasonable demands.'

- 45 Lannie's attitude to her sons is best described as
 - A guilty sorrow.
 - **B** hopeless despair.
 - **C** sympathetic concern.
 - **D** disdainful resignation.

46 Lannie's behaviour towards Fred during the conversation arises mostly from her feelings of

- A hatred.
- B regret.
- **C** contempt.
- **D** suspicion.

17 During the conversation, Fred's attitude to Lannie changes from

- A apathy to appeasement.
- **B** curiosity to astonishment.
- **C** affection to disappointment.
- **D** condescension to indignation.

Questions 48 and 49

In the passage below, Lois has just arrived by train from the country. Nancy has met her at the train station. Both women are in their thirties.

Lois:	So good of you, Nancy, to undertake to pilot me round.	1
Nancy:	[making sure that her coat sways becomingly] What do you think of my coat?	2
Lois:	Oh, er very nice, very nice indeed. But isn't it rather heavy for such a warm day?	3
Nancy:	Oh dear, no. Fur of this quality is never heavy.	4
	[Lois smiles.]	5
Nancy:	It was a present from Harry, you see. On my last birthday. He paid a ruinous price for it – he's a regular spendthrift where I'm concerned.	6
Lois:	Really? And so it has been a success – your marriage?	7
	[Nancy smiles.]	8

From the conversation, which one of the following is most accurate? **48**

- Lois is jealous of Nancy. А
- B Lois is indebted to Nancy.
- С Nancy is insecure with Lois.
- D Nancy empathises with Lois.

49 From the context, it is most likely that Nancy's smile (8) is one of

А delight.

Y OY OCY

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- B smugness.
- С bashfulness.
- D embarrassment.

Questions 50 - 52

In this passage from a novel, Biddy has barged into her mother's bedroom to find her mother examining her exposed breast in the bedroom mirror.

'Why can't you knock?' Mum accuses, her face scrunching up like her nipple.

Normally Biddy would retreat, embarrassed and apologizing, humiliated by her mother's shame. But this time she doesn't. 'What are you doing, Mum?'

Mum is startled by her tone. She has tucked her breast back into her frock. There is something furtive about the way she does it. And she can't get her mouth around the words she needs, the kind of words she usually has no trouble with when she wants to put Biddy in her place.

Biddy has shut the door and leaves a chair backed against it so no one else can barge in the way she did. 'What's the matter, Mum?' she insists. She walks towards her. 'What's wrong with your breast?'

Mum shakes her head in a disturbed kind of way. 'There's nothing the matter with it except for the five children that fed from it.'

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Biddy is supposed to cringe. But she is learning she can make Mum cringe too. She stands close, closer than people usually stand. Then she takes Mum by the shoulders and holds her at arm's length. She looks into the face of her mother like Mum is her daughter. Mum looks down, like she really is a daughter again.

'It's a lump, isn't it? You've found a lump?'

Mum doesn't nod. She won't nod. But she hasn't shaken her head either. If she did her tears might leave her eyes too quick.

'When did you discover it? Just now? Have you been to see a doctor about it? You haven't, have you?' She brushes the tears off Mum's cheeks with the blade of her hand. 'Well you're going to. I'll take you myself if I have to.'

'It's nothing to worry about,' Mum sniffles. 'It's not what you think it is. I've had one before and it's gone away.'

'What!' Biddy is horrified. 'Let me check for myself.' Her fingers move to the buttons on Mum's frock.

But Mum dusts them away, repulsed. 'You'll do no such thing,' she says. 'What would you know, a girl of your age? You're no doctor.'



A anxious and defiant.

B sullen and depressed.

C shamed and humbled.

secretive and tongue-tied.

- 51 '... except for the five children ...' (lines 10 and 11). What appears to be Mum's motive for saying this?
 - A She regrets ever having her children.
 - **B** She is laying blame on the family for her condition.
 - C She wants to reassure Biddy that everything will be alright.
 - **D** She is trying to re-establish her status in her relationship with Biddy.
- 52 'Mum ... hasn't shaken her head either.' (line 17)

The reason for Mum's failure to answer the question is most likely to be that she

- A thinks it is none of Biddy's business.
- **B** doesn't want to admit to her suspicions.
- **C** doesn't believe there is anything wrong.
- **D** wants Biddy to believe there is nothing wrong.

Question 53

A patient (male) is visiting a physiotherapist (female) for back pain.

- **Patient:** I have to say that I'm only coming to see you because the doctor insisted I did. I've tried all this before and I don't really think it will get rid of my pain. Therapist: Well, there's no guarantee that it will, but I'll do my best. **Patient:** What do you mean, 'there's no guarantee that it will'? If you don't think it will help, why don't I just leave now? **Therapist:** I didn't say that. I actually don't know if I can help you until I've examined you and learnt more about your symptoms. And even if we can't get rid of all the pain, at the very least this should help you understand your condition better and know how to prevent it getting worse. **Patient:** That's what I keep hearing from you medical people. But all I want is for the pain to go away, forever. I don't want to have to learn to live with it.
- 53 Which of the following responses by the physiotherapist would best convey to the patient that she understands his situation?
 - A 'Well, as I said, I can't really guarantee anything. I can only do my best.'
 - B 'Unfortunately that's not a realistic expectation, so there's not much point in wishing it.'
 - C 'I don't think anybody likes to live with pain. It tends to completely dominate your life, doesn't it?'
 - **D** 'I know exactly what you mean. I deal with people in pain every day, so I know all about pain and how it affects people.'

Questions 54 – 57

In the following passage from a play, Angela is an architect working for a large firm, Deborah is the firm's human resources manager, and Sam (not present) is Angela's boss.

Angela:	If I'm here to be fired, please fire me.
Deborah:	You've been taking a lot of time off lately, Angela?
Angela:	I've got a kid with severe asthma who worries me out of my brain. When he's carted off to hospital, do you think I'm not going to go and be with him? You got kids?
Deborah:	Two. Tell me your story.
Angela:	My story? I haven't got a story. My life hasn't even got up to the table of contents.
Deborah:	You're divorced.
Angela:	Isn't everyone? Look, please, I don't want to discuss my life. If I'm here to be fired, then fire me.
Deborah:	Angela, there's no way I'm going to recommend that an architect who won a University medal is fired until I know why she isn't performing up to expectations.
Angela:	Expectations? Whose expectations? Sam's expectations? I give Sam exactly what he expects. And when the monstrosities don't sell, I cop the blame!
Deborah:	You could surely get work somewhere else.
Angela:	What do you think I've been trying to do for the past five years or so? Unfortunately the stuff I've been forced to design for Sam is deeply unimpressive.

54 Deborah's main intention during the conversation is to

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- A find out more about Angela's personal problems.
- **B** help Angela balance her home and working lives.
- **C** explore what influences Angela's work performance.
- **D** reassure Angela that she is valued as a member of the firm.

- 55 Angela's main concern is her
 - A feeling of injustice.
 - **B** unrealistic workload.
 - **C** need for compassion.
 - **D** inability to focus on her work.

56 What does Angela ultimately want most to come out of this discussion?

- A more fulfilling work
- **B** more understanding of her situation
- **C** more time off to spend with her son
- **D** more explanation of Sam's expectations

- 57 Overall, Angela's responses are best described as
 - A arrogant and defiant.

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- **B** defensive and dispirited.
- C unconcerned and flippant.
- **D** submissive and grovelling.

Questions 58 – 62

The following passage is from a novel. Nazneen has recently come to London from a Bangladeshi village as part of an arranged marriage with a man twenty years older, named Chanu. Here, her friend Razia is visiting Nazneen at her home, and they have been chatting about some mutual acquaintances. Razia then asks Nazneen about her husband.

'Any news of the promotion?' asked Razia.

'My husband says they are racist, particularly Mr. Dalloway. He thinks he will get the promotion, but it will take him longer than any white man. He says that if he painted his skin pink and white then there would be no problem.' Chanu had begun, she had noticed, to talk less of promotion and more of racism. He had warned her about making friends with 'them', as though that were a possibility. *All the time they are polite. They smile. They say 'please' this and 'thank you' that. Make no mistake about it, they shake your hand with the right, and with the left they stab you in the back.*

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'Well,' said Razia, 'this could be true.'

Nazneen turned the words over. This could be true. She waited for more. Razia was unpicking a thread from her jumper.

Nazneen said, 'My husband says it is discrimination.'

'Ask him this, then. Is it better than our own country, or is it worse? If it is worse, then why is he here? If it is better, why does he complain?'

These were questions she had neither asked nor thought of asking. She was in this country because that was what had happened to her. Anyone else, therefore, was here for the same reason.

'I don't know if he complains,' Nazneen found herself saying. 'He just likes to talk about things. He says that racism is built into the "system". I don't know what "system" he means exactly.'

'My son's teacher, she's a good one,' said Razia. 'She helps him a lot, and he likes her. My husband has a work colleague, he gives us things. Clothes that his children have grown out of. A machine for drying hair. A radio and stepladders. All sorts of things. There are good ones, and bad ones. Just like us. And some of them you can be friendly with. Some aren't so friendly. But they leave us alone, and we leave them alone. That's enough for me.'

58 Judging by her response, Nazneen regarded Razia's question (line 1) as

A rude.

B trivial.

C appropriate.

D unexpected.

- 59 Nazneen's comment 'My husband says it is discrimination' (line 12) seems mainly intended to
 - A defend her husband.
 - **B** criticise her husband.
 - **C** overcome an awkward silence.
 - **D** seek Razia's view of the matter.

- 60 Which of the following best describes how Nazneen regards Razia?
 - A Nazneen is suspicious of Razia.
 - **B** Nazneen respects Razia's views.
 - C Nazneen is intimidated by Razia.
 - D Nazneen wholeheartedly takes on Razia's views.

- 61 Nazneen's thoughts at lines 15 to 17 suggest a tendency, on her part, for
 - A selfishness and prejudice.
 - **B** passivity and lack of reflection.
 - C tolerance and open-mindedness.
 - **D** understanding of and interest in other people.

- 62 With respect to her husband, Nazneen appears to be
 - A submissive but reflective.
 - **B** protective but critical.
 - **C** stubborn and controlling.
 - **D** uncaring and self-interested.

Questions 63 – 65

In the following passage, Phillip reflects on his mother's battle with a terminal illness.

Mum seemed so well, so physically strong and graceful as she moved towards me, and her skin had finally lost that bloodless papery texture. It was the first time in months that I had actually begun to hope. Then the doctor asked me quietly to come outside. He was a serious young man, almost a boy with a kind, chubby face.

'You know she's not going to make it, don't you?'

It wasn't a question. He was telling me honestly to lose that hope, get rid of it, or I wouldn't make it either. Just when I had dared to think that she might come home and be again that strong and dominant woman.

I nodded.

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Perhaps I knew deep down that those few graceful steps that seemed to me like dancing were not a new beginning, just a good night's sleep lightening the dark circles beneath my mother's eyes.

It was all nothing.

My mother's joyful words, 'Darling, watch,' as she had taken those few tentative steps towards me. 'Phillip, see how well I move,' smiling as though it was all over.

The hardest thing was going back into the room.

63 How did Phillip feel about the doctor's decision to reveal that his mother was 'not going to make it' (line 5)?

- A He was relieved to finally know the truth and be able to let go of his false hope.
- **B** He felt the doctor had been foolish and insensitive to destroy all his hope.
- C He accepted the doctor's judgment and could even understand it.
- **D** He felt betrayed that the doctor had not told him sooner.
- 64 Which of the following best explains why Phillip reflects on his mother's behaviour after the doctor's revelation?
 - A He is trying to discover if his mother had been neglected in any way by the hospital staff.
 - **B** He is indulging in some fond memories of his mother while he still can.
 - **C** He is trying to convince himself that the doctor is mistaken.
 - **D** He is confirming to himself that the doctor is right.

65 The passage suggests that in going back into the room Phillip would most likely have

- A calmly told his mother what the doctor had revealed.
- **B** tried to sound even more positive than before.
- **C** not revealed what the doctor had told him.
 - burst into tears upon seeing his mother.

Questions 66 - 68

The following passage is part of a counselling session. A father is talking to a counsellor about his daughter's behaviour. She has come home from secondary boarding school after completing her second term.

She just goes on and on and on about how she feels homesick and misses us. What am I supposed to do? I listen for a while and then my impatience gets the better of me and I say: 'For goodness sake, will you just get off this bandwagon. Of course you miss us, that will pass – everyone goes through this. It's no worse than anyone else's situation. You are just trying to get your own way. You haven't given it a real go.' Julie generally just sobs. She tries to tell me that her homesickness is getting worse instead of better. I tell her to pull herself together. Then I change the subject completely. I say: 'Hey, how about that team of ours, how good was our win on the weekend!' It usually brings her around. I'm not sure why.

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66 Why does Julie's father ask the counsellor 'What am I supposed to do?' (lines 1 and 2)?

- A to elicit advice about how to help Julie
- **B** to defend his response to Julie's behaviour
- **C** to express his disappointment in the counsellor
- **D** to acknowledge his sense of failure in dealing with Julie
- 67 The father's comment 'I'm not sure why' (line 8) about the effectiveness of changing the subject suggests that he
 - A has not given the matter much thought.

D

- **B** suspects his daughter is hiding her true feelings.
- **C** has doubts about the appropriateness of his strategy.
- **D** is trying to sound modest about his success in managing his daughter.
- **68** Judging from the father's manner in recounting this incident, the most likely reason he has chosen to tell the counsellor is
 - A to show the counsellor that he can be an effective parent.
 - **B** because he is concerned about his daughter's mental health.
 - **C** as an example of the kind of difficulties he has to deal with.
 - because he feels ashamed about his treatment of his daughter.

Questions 69 and 70

The following dialogue is between a male doctor and a female patient. So, how are you feeling today, Mrs Lee? **Doctor: Patient:** Not good, Doctor. My back's still very sore. Just like when I first came to see you about this last week. **Doctor:** There's no improvement at all? **Patient:** No, not at all. Worse, if anything. **Doctor:** And you've been taking the medicine I prescribed for you? **Patient:** Yes. **Doctor:** And not doing those things around the house that make you worse, as I recommended? **Patient:** Oh yes, as much as I can. **Doctor:** [laughs] What does that mean? Does that mean you've continued to do them? [sighs] Doctor, you don't understand, I have responsibilities to my family. **Patient: Doctor:** And responsibilities to yourself. **Patient:** [laughs] **Doctor:** It's true. And if you don't look after yourself, then you won't be able to look after others. Doctor, please, all I want is some stronger medicine to help me get on with what I **Patient:** have to do. **Doctor:** That won't help you in the long term. **Patient:** That's OK, I just want something to help me in the short term. **Doctor:** [pause] I understand your situation, but there is little point giving you stronger medicine if you're not also avoiding those things which are causing your problems. The medicine won't fix your back. It may even cause you to injure yourself more seriously. **Patient:** [becoming teary] Please, Doctor. **Doctor:** [pause] Mrs Lee, is there something else you need to tell me about?

- 69 What is the patient's main expectation regarding her condition?
 - A to be free of the pain
 - **B** to be able to cope with her pain
 - **C** to understand the treatment options
 - **D** to receive sympathy and understanding

70 The doctor's final question is best described as

- A routine.
- **B** suspicious.
- C insensitive.
- **D** sympathetic.

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Questions 71 and 72

When she was 14, Elizabeth's older brother (Ted) died after a long illness. In this passage, Elizabeth, now an adult, reflects on this period of her life.

My father immersed himself in his work after Ted died. He'd always done that to some degree. But now he descended and did not come up for air. My mother, whose life had for so long revolved around my brother, turned her formidable focus on me. I became her constant companion. Her solace for having lost one child was that she had another one in whom to lose herself. It was bad timing. At fourteen, I was just at the age when I was trying to find and assert my independence. And the years on the side-lines of my brother's illness had long since made me decide I didn't, couldn't need my parents. I resolved the dilemma by appearing, on the surface, the perpetual child my mother wanted me to be, while quietly turning to the adolescent's novocaine¹ – alcohol and drugs – establishing a pattern of demure self-destruction that would last more than a decade.

Later I would add an eating disorder to my repertoire of dysfunctional coping – first anorexia, then bulimia, then obsessive exercise. Relationships became another common refuge, until they became demanding rather than distracting. I discovered that I was very good at shutting off emotion, abruptly. If one boyfriend got too threatening, too connected, I could exchange him for another quite easily. It wasn't such a bad thing, in retrospect, because somehow I always found myself in relationships in which my needs were overlooked, a state of affairs that would eventually trigger in me an inexplicable and very old rage.

¹ novocaine: a local anaesthetic commonly used by dentists to block pain during dental procedures

- 71 Elizabeth says that in retrospect her easy 'exchange' of boyfriends (line 13) was not such a bad thing because these relationships
 - A made her learn to assert her needs.
 - **B** taught her to control her emotions.
 - C finally forced her deep feelings to erupt.
 - **D** allowed her to gradually understand her feelings.

- 72 How does Elizabeth suggest she viewed her father's behaviour at the time of Ted's death?
 - A with gratitude
 - **B** with bitterness
 - **C** with sympathy
 - with indifference

Questions 73 - 76

The following passage is from a short story. Nick is in bed when he receives a phone call from his friend, Philip, husband of Anthea.	
The phone rang close to midnight jerking Nick back from the brink of sleep	
'Nick Harvey.'	
'Nick – I hope I haven't woken you.'	
'I'm sorry,' he mumbled, still drugged with sleep. 'Who is this?'	
'Nick, it's Philip. Philip Tandy. I know it's late, but it's important. I'm trying to track down a	5
horrible rumour.'	
The words splashed his ears like cold water; he was instantly awake.	
'It's about Anthea,' the voice continued. 'A horrible lie. I wonder if you'd heard it?'	
Nick was cautious, noncommittal: 'I heard something. It was a bit vague.'	
'I thought you might have. I've just been speaking to Josie and David – they seemed to think	10
they first heard the rumour from <i>you</i> .'	
Nick was dumbfounded: 'When was this?'	
'A few minutes ago,' Philip said. 'I've just got off the phone to David.'	
'No, when was I supposed to have told <i>them</i> ?'	
At some school function. A month ago. They are certain it came from you.	3
Nick snivered in his warm bed, momentarily lost for words. This was simply not true. In fact,	
the opposite was true: he was certain he had first heard the story from Josie. But what could he say?	
to guibble. And he had needed the rumour on the his friends, perhaps, but cortainly to his wife. And	
to quibble. And ne <i>nua</i> passed the runnour on – to his mends, perhaps, but certainly to his whe. And through her to other friends	20
through her to other mends.	:0
(Later, Nick is listening to his wife, Cassie, discuss the incident with a friend on the phone.)	
'Can you believe he would ring Really? He rang them too? He must be ringing everyone like a chain letter. I wonder where he'll end up not here, thank God of course, I don't blame him. Imagine how Anthea is feeling! No, I couldn't face her If it's not true it's almost as bad.'	
Nick took up this last odd nuance with Cassie when she had finally finished on the phone, some 2 minutes later.	?5
'What do you mean: "almost as bad"?' he said. 'If she hasn't got cancer, what does it matter?'	
She seemed surprised that he didn't understand. 'How would you feel if people believed you	
had cancer? Wouldn't it make you uneasy?'	
'It wouldn't worry me in the slightest. I haven't got cancer.'	30
05	
6	
34	

-

- 73 Philip's words 'I hope I haven't woken you' (line 3) are most likely said with
 - A timidity.
 - **B** open hostility.
 - C genuine courtesy.
 - **D** dismissive formality.
- 74 Philip's actions seem to stem mainly from feelings of
 - A obligation.
 - **B** persecution.
 - C protectiveness.
 - **D** vindictiveness.
- 75 In line 8, regarding the rumour, Philip asks of Nick, 'I wonder if you'd heard it?'.

Philip's intention here is most likely to

- A openly accuse Nick of disloyalty.
- **B** solicit Nick's knowledge and advice.
- **C** see if Nick can confirm his suspicions.
- **D** demonstrate to Nick that he does not suspect him.
- 76 The way Cassie speaks about Philip's behaviour (lines 22–24) suggests that she finds it
 - **A** appropriate and necessary.
 - **B** rude despite its reasonableness.
 - **C** ridiculous to the point of being humorous.
 - **D** melodramatic despite being understandable.

Questions 77 - 79

The following passage is taken from a play. Barbara and Stuart are an Australian couple who have moved to Denmark for six months where Stuart has a job at a university. They have moved into an apartment with their two young sons.

٠

Barbara:	Stuart, we must have that babysitter whether we can afford it or not. The kids are wonderful, I love them, but after I've spent one day with them I feel as if I've lost twenty sophisticated words from my vocabulary forever.	1
Stuart:	What do you want to do?	2
Barbara:	Read, think, anything! Maybe even work on my thesis ¹ .	3
Stuart:	You said you wouldn't.	4
Barbara:	What harm would it do?	5
Stuart:	Barbara, you promised. We agreed to come here on the clear understanding that you wouldn't work on your thesis for the six months we were away.	6
Barbara:	I've thought that one through and I don't think it was a reasonable thing to ask.	7
Stuart:	So you make a bargain back home and try to wriggle out of it as soon as you get here.	8
Barbara:	I don't think it was a reasonable thing to ask.	9
Stuart:	Then why didn't you say so at the time?	10
Barbara:	I wasn't sure at the time, but since we've got here I've had time to think.	11
Stuart:	About what?	12
Barbara:	About our marriage, and I'm worried.	13
Stuart:	There's nothing wrong with our marriage.	14

¹ thesis: written work submitted for a university degree

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- 77 Stuart's reaction to Barbara's proposal that she could work on her thesis is best described as
 - detached. Α
 - B anguished.
 - С obstructive.
 - D unrestrained.

- Barbara's response in (7) is best described as a 78
 - spontaneous retort. А
 - B carefully planned rejoinder.
 - С hasty retreat from her former stance.
 - sympathetic acknowledgement of Stuart's concerns. D

Which pair of words most accurately describes how Barbara and Stuart appear in the passage? 79

Barbara

Stuart

- troubled А insecure B disillusioned controlling С helpless
 - D intimidated
- vulnerable confused

Questions 80 – 82

The following has been offered as a 'guided dialogue' for teachers and child-carers when confronting a fight in the playground.

Opening	Ok now, let's sort this out.
Step 1	Jackie, exactly what happened?
	Keisha, now you tell me what happened.
Step 2	How did you feel when she hit you?
	How do you think she felt when you pushed her?
Step 3	Why do you think this fight happened?
Step 4	What could you do differently if this happens again?
	What can we do now so we can all return to what we were doing before the fight?
Closing	Ok, go back and play.

- 80 The main aim of the Step 1 questions appears to be to
 - A see if one of the children is lying.
 - **B** find out who is primarily to blame.
 - **C** let each child give her view of events.
 - **D** get the children to agree about what happened.
- 81 The Step 2 questions appear to be based on the assumption that children
 - A only hurt one another by accident.
 - **B** do not care if they hurt one another.
 - **C** are too young to understand how other people feel.
 - **D** will not hurt others if they understand how they feel.
- 82 Which of the following responses to the Step 3 question would a teacher following the guided dialogue prefer to hear?
 - A 'Because she hit me first.'

- **B** 'Because everyone picks on me.'
- C 'Because I have a right to play too.'
- **D** 'Because I thought she did it on purpose.'

Questions 83 and 84

In the following passage, a man reflects on how his brother's death affected his father.

When my brother died of cancer in 1966 at age thirty-nine, my father began a grieving process that lasted almost twenty-five years. During that time he suffered from chronic, debilitating headaches that could not be cured. At one point, a doctor tried to tell him that his headaches were related to his grief, but my father persisted in regarding the pain as a medical problem, and the torment continued. After my father's death at eighty-six, I thought about how he could have been helped.

- 83 What is the writer's main point in this passage?
 - A to illustrate his own grief
 - **B** to describe his own sense of helplessness
 - **C** to show the magnitude of his father's grief
 - **D** to criticise the treatment his father received
- 84 Regarding his father, the writer thinks the medical profession behaved in
 - A a limited manner.
 - **B** an uncaring manner.
 - **C** a conscientious manner.
 - **D** a self-interested manner.

END OF SECTION 2

STOP

DO NOT CONTINUE UNTIL YOU ARE TOLD TO DO SO



SECTION 3

Non-Verbal Reasoning

Questions 85 – 122

Questions 85 – 98 Next in the Series

For each of the following items, select the alternative (A, B, C, D or E) that most logically and simply continues the series.





CONTINUE STRAIGHT ON \rightarrow













For each of the following items, select the alternative (A, B, C, D or E) that most logically and simply completes the picture.













Questions 111 – 122 Middle of the Sequence

In each of the following items, the five figures can be rearranged to form a logical sequence.

For each item, select the alternative (A, B, C, D or E) that most logically and simply fits the **middle** of the sequence.











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ANSWERS

Section 1 12 34 1 B D 23 A D 2 35 D 24 B С 13 В 3 С 14 25 B 36 B A 4 B 15 26 B 37 D А 5 27 D A 16 D 38 A 6 D 17 С 28 B 39 D 7 С 18 D 29 С 40 D 8 19 30 41 D С A B 9 С 20 A 31 42 D A 10 С 21 С 32 B 43 С 33 11 D 22 С B 44 B Ĵ

Section 2

45	D	55	Α	65	С	75	С
46	С	56	Α	66	В	76	D
47	D	57	В	67	Α	77	С
48	С	58	С	68	С	78	В
49	В	59	D	69	В	79	В
50	Α	60	В	70	D	80	С
51	D	61	В	71	С	81	D
52	В	62	Α	72	D	82	D
53	С	63	С	73	D	83	С
54	С	64	D	74	С	84	Α

	85	D	95	В	105	В	115	Α
	86	В	96	Α	106	Α	116	D
	87	В	97	E	107	С	117	E
	88	Α	98	В	108	Α	118	В
	89	D	99	D	109	Α	119	E
	90	Α	100	D	110	С	120	С
4	91	С	101	В	111	D	121	Α
	92	E	102	С	112	E	122	С
	93	D	103	E	113	Α		
9	94	E	104	С	114	В		
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