



**UMAT<sup>TM</sup>**

Undergraduate Medicine and Health Sciences Admission Test

# Practice Test 1

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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.

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## 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.

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## 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*.

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### ***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 2¾ 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 4½ 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.)
- **Never** 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.

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## 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:

Practice Test time:		165 minutes
The Practice Test consists of three sections		
Section 1	44 questions	65 minutes
Section 2	40 questions	50 minutes
Section 3	38 questions	50 minutes

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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# UMAT

UNDERGRADUATE MEDICINE AND HEALTH SCIENCES  
ADMISSION TEST

## Practice Test 1

**Test time: 165 minutes**

**Total number of questions: 122**

The test consists of **three sections**:

<b>Section 1</b>	<b>44 questions</b>	<b>65 minutes</b>
<b>Section 2</b>	<b>40 questions</b>	<b>50 minutes</b>
<b>Section 3</b>	<b>38 questions</b>	<b>50 minutes</b>

- 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

## SECTION 1 Logical Reasoning and Problem Solving Questions 1 – 44

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

### Question 1

Legumes are plants of the family Leguminosae, a large group characterised by the bearing of rows of seeds in pods, and roots that bear nodules inhabited by bacteria that convert atmospheric nitrogen into compounds that can be absorbed by plants. Lentils are a type of legume edible by humans, as are peas and beans. Edible legumes are collectively known as pulses.

Clover is a kind of plant not generally considered edible by humans, but which bears its seeds in rows in pods and has nodules bearing nitrogen-converting bacteria.

- 1 From this information it follows that
- A not all pulses bear their seeds in pods.
  - B lentils do not have nodules on their roots.
  - C clover would be classified as a legume, but not as a pulse.
  - D clover is a valuable kind of legume that removes nitrogen from soil.

### Question 2

This table shows the results of growing *spangled snapdragon* plants under varying conditions of daylight and darkness.

Hours of light	Hours of darkness	Results
14	10	doesn't flower
15	9	flowers
15	10	doesn't flower
16	9	flowers

- 2 Which of the following is most likely to trigger the flowering of the spangled snapdragon?
- A more than 9 hours of darkness
  - B less than 10 hours of darkness
  - C more than 14 hours of light
  - D less than 15 hours of light

### Question 3

A girl and a boy are sitting next to each other on a park bench. The girl says, 'I support the Demons.' The boy says, 'I support the Panthers.' It is known that the girl supports one of these two teams, the boy supports the other, and that at least one person is lying.

- 3 Which one of the following is correct?
- A Both children are lying.
  - B The boy could not be lying.
  - C The girl supports the Demons.
  - D The girl may be telling the truth.



## Question 4

Consider the following table that shows how often adults in a particular western country attend church.

CHURCH ATTENDANCE BY ADULTS	
never attend	33.5%
less than once a year	17.4%
once or twice a year	15.9%
several times a year	9.0%
about once a month	2.6%
two or three times a month	3.7%
nearly every week	4.7%
every week	9.8%
several times a week	2.8%
every day	0.6%

- 4 According to this table,
- A more people attend church at least 52 times a year than do so 48 or 50 times a year.
  - B the proportion of people who attend church once every three or four years is about 16.1%.
  - C the number who attend church just a few times a year is less than the number who attend about once every month.
  - D the number who attend church once every few years is greater than the number who do so more than three times a year.

## Question 5

Three glasses, labelled X, Y and Z, are on a table. Each is exactly half full of water. Two of the glasses can each hold twice as much as the third one. The small glass may be X or Y or Z.

- 5 Half of the water in glass X is poured into glass Y. Then, half of the water now in glass Y is poured into glass Z. Finally, half of the water now in glass Z is poured into glass X.
- A This can be done without spilling any water if the small glass is glass X.
  - B This can be done without spilling any water if the small glass is glass Y.
  - C This can be done without spilling any water if the small glass is glass Z.
  - D This cannot be done without spilling any water.

# Section 1

## Question 6

In an experiment, different groups of people were given the same painful stimulus and their levels of pain and anxiety measured. Before the painful stimulus, one group was given a pill that they were told would increase the severity of any pain felt, i.e. the pill was a *nocebo*. In reality, but unknown to the people, the *nocebo* contained nothing that would affect either pain or anxiety. A second group was given a drug called proglumide, and a third group given both the *nocebo* and proglumide. A final group acted as a control and was not given anything before the painful stimulus.

The results of the experiment are shown, with the crosses indicating relative intensity of pain and anxiety.

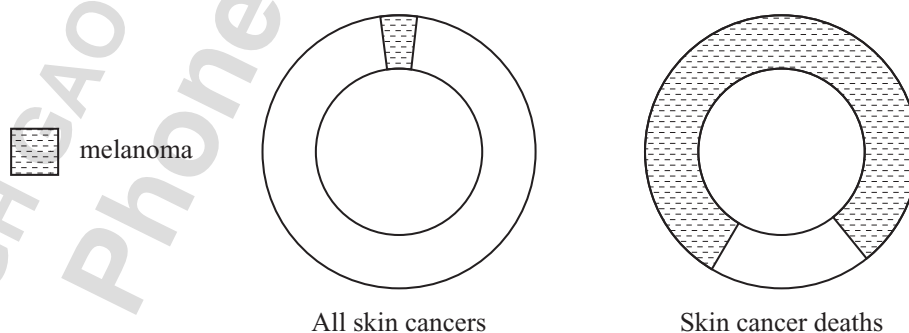
	Pain	Anxiety
control	+	+
proglumide	+	+
nocebo	++	++
nocebo + proglumide	+	++

6 The results of the experiment suggest that proglumide, on its own, causes

- A pain only.
- B anxiety only.
- C pain and anxiety.
- D neither pain nor anxiety.

## Question 7

A melanoma is a type of skin cancer.

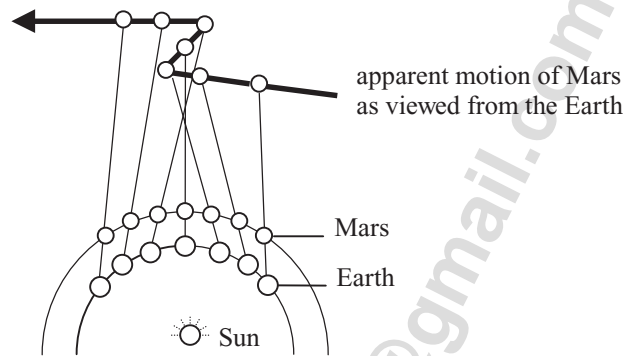


7 Together, these two diagrams indicate that

- A melanoma is more likely to cause death than most other types of cancer.
- B melanoma makes up less than 10% of all skin cancers yet causes about 80% of all skin cancer deaths.
- C melanoma contributes little to the total number of cancer deaths as it occurs in less than 10% of all skin cancer cases.
- D skin cancer deaths as a result of all types of skin cancer are four times more common than skin cancer deaths from melanoma.



## Question 8



- 8 This diagram indicates that
- A Mars orbits the Earth in an irregular fashion.
  - B as Earth orbits the Sun, planets further out appear to move irregularly against the background of distant stars.
  - C as Earth orbits the Sun, its distance from Mars decreases to a minimum and then increases once per Earth orbit.
  - D because Mars has an orbit further from the Sun than Earth, it appears to orbit the Sun faster than Earth does.

## Question 9

According to a study, the melting of Patagonian glaciers of South America is accelerating and the water from their melting now accounts for nearly 10% of the global sea-level rise caused by melting mountain glaciers. The Patagonian glaciers lost ice equivalent to a sea-level rise of about 1.0 mm in the 25 years from 1975 to 2000.

From 1995 to 2000, however, the rate of Patagonian ice loss was equivalent to a sea-level rise of 0.1 mm per year.

- 9 Which one of the following statements is consistent with the information given?
- A Patagonian glaciers caused the equivalent of a rise in sea-level of approximately 0.1 mm each year between 1975 and 2000.
  - B From 1975 to 1995 the average rate of Patagonian glacier ice melting was equivalent to a sea-level rise of about 0.01 mm per year.
  - C From 1975 to 2000, melting mountain glaciers around the world contributed water to the oceans equivalent to a sea-level rise of about 1.0 mm each year.
  - D The average annual rate of Patagonian glacier ice melting between 1995 and 2000 was about four times that of the previous 20 years.



## Section 1

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### Question 10

Out of 28 people who had been found guilty of an offence and then subsequently proved innocent by evidence from DNA testing, 24 had been positively identified in police line-ups or 'mug shots' as being the criminals concerned.

10 Which of the following is best supported by this information?

- A DNA testing is a very inexact science.
- B People's memories of what took place at crime scenes are far from reliable.
- C DNA testing should be restricted to confirming or denying the remembered evidence of eye-witnesses.
- D People found guilty of a crime through the evidence of DNA testing did not necessarily commit the crime.

### Question 11

In Islandia, bullfighting has been carried on over centuries. Not everyone is in favour of bullfighting. There are equal numbers of men and women in Islandia.

Ten per cent of Islandians are against bullfighting. Of these, seven out of ten are women. All others like bullfighting.

11 The number of

- A men who do not like bullfighting, as a proportion of all men, is 3 out of 50.
- B men who do not like bullfighting, as a proportion of all men, is 3 out of 47.
- C women who do not like bullfighting, as a proportion of all women, is 7 out of 10.
- D women who do not like bullfighting, as a proportion of all women, is 7 out of 43.

### Question 12

Suppose that just one of the following four statements is true.

- Statement I None of these four statements is true.
- Statement II The previous statement is true.
- Statement III The previous statement is false.
- Statement IV The previous statement is false.

12 The true statement must be

- A Statement I.
- B Statement II.
- C Statement III.
- D Statement IV.



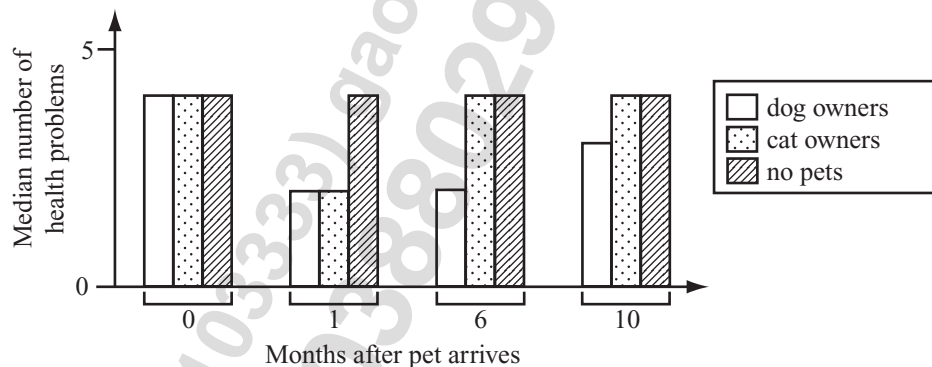
## Question 13

The life expectancy of Australian women has doubled to about 82 years since the 1850s. Whilst the average age of menopause – generally between 40 and 60 – has remained steady, that of menarche (the onset of fertility) has dropped markedly.

- 13 Which of the following is the best conclusion that can be drawn from the information above?
- A The likelihood of women conceiving during their fertile years has decreased since the 1850s.
  - B Nowadays, women are, on average, having fewer children during their fertile years than they did in the 1850s.
  - C Australian women are living, on average, for about the same number of years after menopause as they did in the 1850s.
  - D For women who have lived to menopause, the number of years during which they could have conceived children has increased since the 1850s.

## Question 14

The graph shows the results of a study in which people were monitored for health problems in the months after they first took ownership of a pet dog or cat. A similar group of people who did not obtain a pet were also monitored.



- 14 Which of the following is best supported by the information?
- A Pet ownership confers strong but short-lived health benefits.
  - B The health of those without pets is likely to decline over time.
  - C The health benefits of owning cats take longer to appear than the health benefits of owning dogs.
  - D Over several years, dog ownership is likely to improve health more than cat ownership.

## Question 15

Improperly washed hands cause most cases of food poisoning in the food industry and of cross-infection in hospitals. A study has shown that hands that are well washed but wet can transmit as many as 60 000 micro-organisms on contact, whereas similarly washed hands that have been thoroughly dried with a paper towel transmit a mere 200.

- 15 This information indicates that
- A just washing hands has little effect on reducing the number of micro-organisms that hands carry.
  - B at least washing hands is a better method of preventing the transfer of disease than not washing hands at all and keeping them dry all the time.
  - C moisture greatly assists in the transfer of micro-organisms from one site to another.
  - D as long as hands are thoroughly dried, there is little risk of transferring micro-organisms from them to another site.

CONTINUE STRAIGHT ON →

## Section 1

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### Question 16

A study showed that when people had to choose between two rental properties, one of which (P) was fairly expensive, but close to work, and another (Q) that was quite a bit cheaper, but further away from work, they tended to choose equally between P and Q.

However, when a third property (R) was available, which was a little further than Q from work, and more expensive even than P, about 70% consistently chose Q and 30% chose P.

- 16 Which of the following hypotheses best explains these results?
- A A third choice simply confused people.
  - B People chose Q because it was closer to work than R.
  - C The simplest comparison to make between the three properties was between Q and R, so many chose the better of those two.
  - D Transport costs from R to work could be disproportionately higher than those from Q to work.

### Question 17

Researchers have found that the levels of most strong-smelling sulfides and other compounds in the breath of garlic-eaters decline within a few hours of eating garlic. However, high levels of two sulfide compounds and of acetone are found in the breath more than 30 hours after eating. After a day, for example, the acetone level in the breath is typically more than 5 parts per million. Acetone can be produced by the breakdown of fatty blood compounds, including cholesterol. Crushed garlic gives off acetone at about 10 parts per billion.

- 17 Of the following, the researchers would be most justified in concluding that
- A most of the acetone in a garlic-eater's breath comes from the ingested garlic.
  - B in the body, acetone from garlic interacts with cholesterol to cause the breakdown of sulfides.
  - C after 24 hours, the body has broken down approximately 50% of the acetone ingested from the garlic.
  - D digested garlic causes the body to produce some sulfides.

### Question 18

Many old trees have a spiral twist to their trunks. Those in the northern hemisphere that grow in areas with strong prevailing westerly winds (winds blowing from west to east) most frequently twist anti-clockwise. One theory to explain this is that northern hemisphere trees have more foliage on the side facing the sun – their southern side. As a result, when winds blow from the west, an anti-clockwise twisting force is exerted.

- 18 If this theory were correct, it would be expected that trees normally exposed to prevailing
- A northerly winds and growing in the northern hemisphere would not have twisted trunks.
  - B easterly winds and growing in the southern hemisphere would have trunks twisted clockwise.
  - C easterly winds and growing in the northern hemisphere would have trunks twisted anti-clockwise.
  - D northerly winds and growing in the southern hemisphere would have trunks twisted anti-clockwise.





## Questions 19 – 21

The table lists the sources of the 150 most-used prescription drugs in a western country. Some of the drugs are purely synthetic chemicals, some are used chemically unmodified as obtained from a natural source, and the remainder are naturally sourced chemicals that have been modified synthetically. Note that several values are missing from the table.

- An organism is any living thing.

Drug source	Total number	Natural	Modified	Percentage
fungi	17	4	13	11
marine organisms	X	2	0	Y
bacteria	6	5	1	4
plants	34	9	25	23
animals	27	6	21	18
synthetic	64	–	–	43
<b>total</b>	<b>150</b>	<b>26</b>	<b>60</b>	<b>100</b>

19 The values missing at X and Y should be, respectively,

- A 0 and 1.
- B 0 and 2.
- C 2 and 1.
- D 2 and 2.

20 Of the 150 drugs in the table, how many are purely or partly synthetic?

- A 26
- B 43
- C 64
- D 124

21 Which of the following statements is true of the way in which organisms are organised in the table?

- A It is possible that marine plants and marine animals are grouped together.
- B The category ‘plants’ must include both marine plants and non-marine plants.
- C It is possible that all non-marine organisms are grouped together.
- D Plants and bacteria are always grouped separately.

CONTINUE STRAIGHT ON →

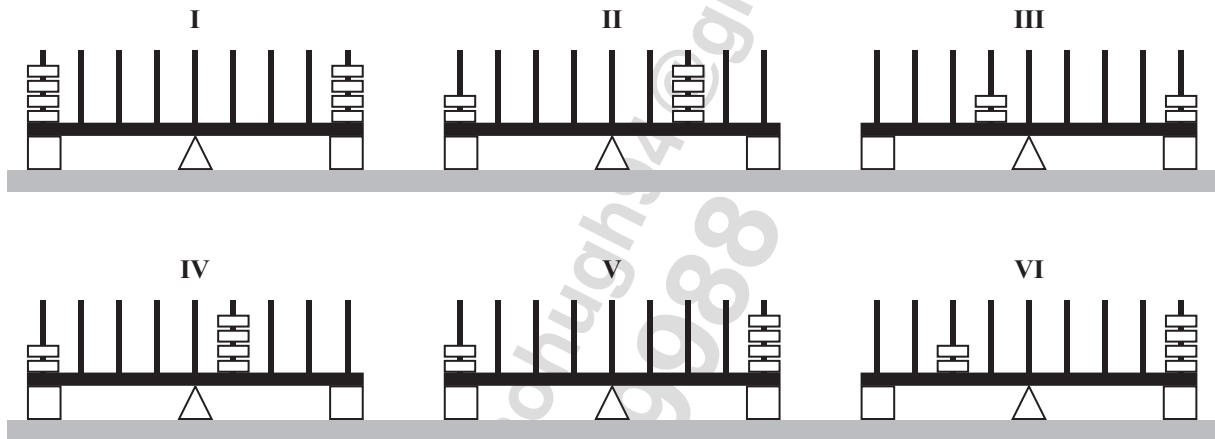


## Section 1

### Questions 22 and 23

A psychologist studied young children at primary school making judgements about the reactions of a balance loaded with different weights at different distances from its fulcrum. Six examples of these balance problems are shown in the figure. In each case, the child was asked to predict whether the balance would tip to the left, to the right, or remain level, when the square blocks were removed from under the balance.

- Each of the weights shown has the same mass, and the pegs are evenly spaced along the balances with the centre peg being directly over the fulcrum.



The psychologist proposed that children predict the movement of the balance by using either one of two rules:

**Rule 1** Consider just the number of weights on each side of the fulcrum (with no consideration of their distances from the fulcrum).

**Rule 2** Consider the number of weights on each side of the fulcrum, but if there are equal numbers, then consider their distances from the fulcrum.

**22** How many of the six balance problems in the figure would a child using **Rule 1** predict correctly?

- A** one
- B** two
- C** three
- D** more than three

**23** A child using **Rule 2** would be expected to say that in

- A** balance problem **II**, the right side would move down.
- B** balance problem **III**, the balance would stay level.
- C** balance problem **IV**, the left side would move down.
- D** balance problem **V**, the balance would stay level.



## Questions 24 – 28

Researchers in the Netherlands conducted a study of 1200 newly elected politicians. The study noted whether the politicians were only-children, first-born children, middle-born children or last-born children.

The study found that amongst these politicians, only-children and first-born children were over-represented (i.e. in greater proportion than in the general population). Middle-born children and last-born children were under-represented.

- 24 Which of the following statements is most strongly supported by the study's results?

Children who have

- A early undivided attention from their parents are more likely to take up a career in politics.
- B experience in giving orders to younger siblings are more likely to take up a career in politics.
- C early undivided attention from their parents are less likely to take up a career in politics.
- D experience in giving orders to younger siblings are less likely to take up a career in politics.

- 25 Suppose it is proposed that the experience of giving orders to younger siblings increases the likelihood of becoming a politician, and early undivided parental attention has little effect.

Which of the following sets of results would most clearly support this proposition?

- A Only-children are under-represented, while first- and middle-born children are over-represented.
- B Only-children are over-represented, while middle- and last-born children are under-represented.
- C Only- and middle-born children are over-represented, while first-born children are under-represented.
- D Only- and last-born children are under-represented, while first-born children are over-represented.

- 26 Of the following, the best title for this study would be

- A 'Politicians are more likely to have younger siblings.'
- B 'Birth order affects the likelihood of a career in politics.'
- C 'People from smaller families have a greater likelihood of becoming politicians.'
- D 'Only-children and first-born children are more likely to enter politics than other careers.'

- 27 If the data are to make sense, it must be assumed that last-born children

- A include only-children.
- B may include only-children.
- C are from families with at least two children.
- D are from families with at least three children.

- 28 Which of the following sets of results most strongly supports the proposition that the experience of giving orders to younger siblings increases the likelihood of becoming a politician?

the results for

- A only-children and first-born children
- B middle-born children and last-born children
- C first-born children and middle-born children
- D first-born children and last-born children

CONTINUE STRAIGHT ON →

# Section 1

## Questions 29 – 34

In the puzzle illustrated in Figure 1, there are three different-sized discs and three identical pegs. The puzzle starts with all three discs stacked on any peg, with the largest at the bottom and the smallest at the top. The aim is to move all three discs to one of the two vacant pegs.

There are two rules:

- only one disc can be moved at a time;
- a disc cannot be placed on one smaller than itself.

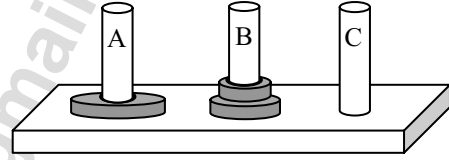


Figure 1

The arrangement of the three discs can be represented by a sequence of three letters, representing the positions of the smallest, middle-sized and largest discs respectively. Each letter refers to the peg (A, B or C) on which the disc sits. For example, the arrangement in Figure 1 is represented by [BBA].

Figure 2 shows the three-letter sequences of all possible arrangements of the three discs. Each arrangement is linked to the two or three other arrangements that can be achieved on the next move. For example, from arrangement [AAA], arrangements [BAA] or [CAA] can be achieved on the next move.

In Figure 2:

- two of the sequences (**X** and **Y**) are missing;
- three of the links between sequences are shown in bold.

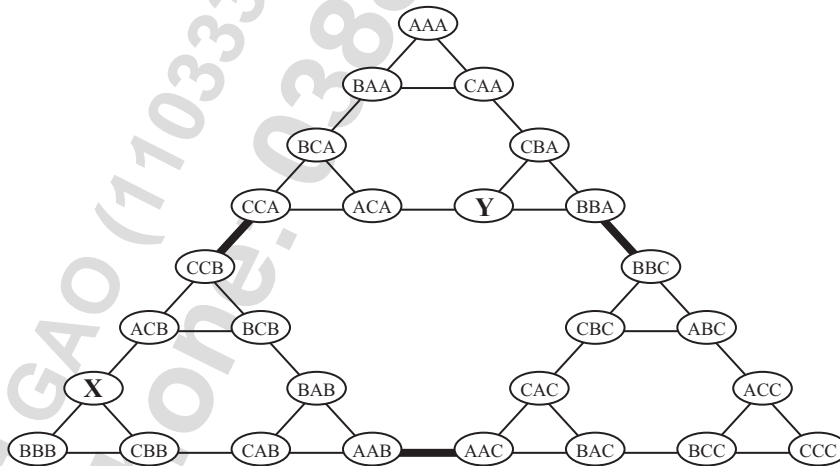


Figure 2

29 Suppose all three discs are on one peg.

How many different arrangements can be achieved on the next move?

- A one
- B two only
- C three only
- D two or three, depending on the peg holding the three discs



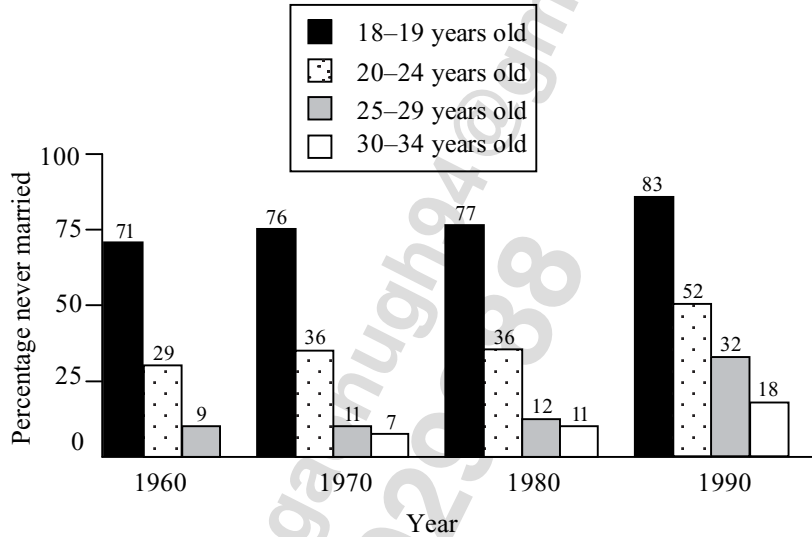
- 30 Starting with [AAA] and finishing with [CCC], what is the minimum number of moves required of the smallest disc?
- A one
  - B two
  - C three
  - D four
- 31 In Figure 2, the three bold links between sequences indicate the only moves in which
- A Peg C is involved.
  - B the largest disc is moved.
  - C the smallest disc remains on the middle peg.
  - D only two pegs have discs on them, both before and after the move.
- 32 According to the rules, how many possible arrangements of two discs on Peg A are there?
- A one
  - B two
  - C three
  - D six
- 33 To which of the two vacant pegs (**i**, the peg on which the three discs finally sit; or **ii**, the other vacant peg) should the first move be in order to complete the puzzle in the fewest moves possible?
- A **i** only
  - B **ii** only
  - C Both **i** and **ii** are suitable regardless of whether the three discs initially sit on peg A, B or C.
  - D It depends on whether the three discs initially sit on Peg A, B or C.
- 34 Suppose the puzzle is played with four discs on three pegs.  
Which one of the following arrangements **cannot** be achieved in one move from [ABCC]?
- A [AACC]
  - B [ACCC]
  - C [BBCC]
  - D [CBCC]

# Section 1

## Questions 35 – 38

The graph shows, for different age groups and in different years, the percentage of women in the USA who had never been married.

**Note:** the data on women 30–34 years old are not shown for 1960.



- 35 Suppose that there were 4 000 000 women aged 20–24 in 1970.

Ignoring deaths, how many of these women married for the first time in the next ten years?

closest to

- A 3 000 000  
B 2 000 000  
C 1 000 000  
D 400 000
- 36 In 1970 the average age at which women had first been married
- A was between 18 and 19 years old.  
B was between 20 and 24 years old.  
C was 25 years old or older.  
D cannot be determined from just the information provided.
- 37 Which of the following is best supported by the information in the graph?
- A Half of the women aged 20–24 in 1980 who had never been married were married in the next ten years.  
B Just over two-fifths of the women aged 18–19 in 1980 who had never been married were married in the next ten years.  
C Less than half of the women aged 20–24 in 1960 who had never been married were married in the next ten years.  
D Almost two-thirds of the women aged 18–19 in 1960 who had never been married were married in the next ten years.



- 38 Which of the following is best supported by the information in the graph?
- A Women aged 18–19 in 1970 were twice as likely to have been married compared to women aged 20–24 in 1990.
  - B Women aged 30–34 in 1990 were twice as likely to have been married compared to women aged 20–24 in 1980.
  - C Women aged 20–24 in 1990 were twice as likely to have been married compared to women aged 18–19 in 1970.
  - D Women aged 20–24 in 1980 were twice as likely to have been married compared to women aged 30–34 in 1990.

**Questions 39 and 40**

In a study to evaluate the effectiveness of acupuncture\* in controlling pain, 300 migraine sufferers were divided randomly into three groups. Group I was given acupuncture, Group II was given sham acupuncture\*\* and Group III was given no treatment. The participants then reported how their pain progressed. During the study, the participants in Groups I and II did not know whether they were receiving acupuncture or sham acupuncture. About 51% of participants in Groups I and II reported at least a halving of their level of pain, compared with about 15% of Group III.

- \* Acupuncture is a process of inserting needles into specific body locations, which is believed by some practitioners to have desirable effects, such as pain reduction.
- \*\* In sham acupuncture, needles are inserted into body locations other than those believed to be effective.

39 Consider the following:

- i Acupuncture relieves migraine pain through a psychologically mediated effect.
- ii Acupuncture relieves migraine pain through a direct physiological effect due to the insertion of needles into specific body locations.
- iii Acupuncture relieves migraine pain through a direct physiological effect due to the insertion of needles, regardless of the needles' location.

The results of the study suggest that

- A i is true but neither ii nor iii is true.
- B iii is true but neither i nor ii is true.
- C either i or iii is true but ii is not true.
- D either ii or iii is true but i is not true.

40 In this study,

- A there is no control group.
- B both Groups II and III act as controls.
- C Group II acts as a control but not Group III.
- D Group III acts as a control but not Group II.

CONTINUE STRAIGHT ON →

## Section 1

### Questions 41 – 44

Bacteria have chemoreceptors that enable them to detect various chemicals to which they are attracted. Solutions containing mixtures of such attractants are more attractive than solutions containing a single attractant.

Some chemoreceptors can detect more than one attractant. However, if such receptors are saturated with one attractant, they cannot detect another.

In a series of experiments, Julius investigated how many chemoreceptors one species of bacterium has for three different chemicals (**I**, **II** and **III**), known to be attractants for that species.

In each experiment, the bacteria were suspended in solutions of one of the attractants in each of two containers, as shown in Figure 1. The concentration of the attractant in each container was high enough to saturate any appropriate chemoreceptors. Tubes containing a mixture of the attractant in the container and one of the other two attractants were then placed into the containers. The bacteria were monitored to determine if they were attracted to the tubes.

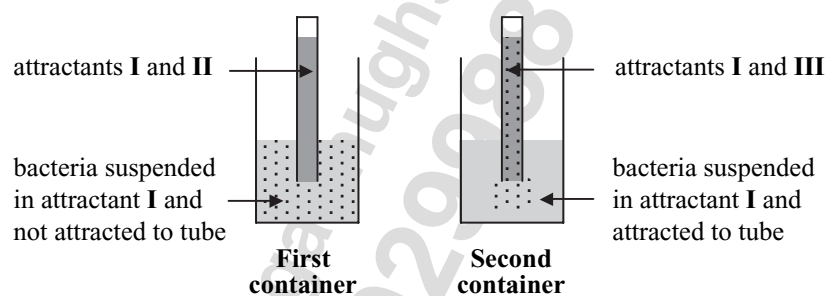


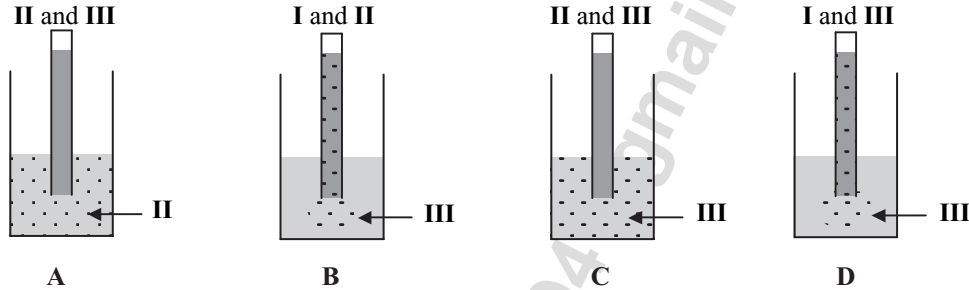
Figure 1

- 41 The experiment represented in Figure 1 indicates that the bacteria has
- A a different chemoreceptor for each of attractants **I**, **II** and **III**.
  - B one chemoreceptor for attractants **I** and **II**, and another for attractant **III**.
  - C one chemoreceptor for attractants **I** and **III**, and another for attractant **II**.
  - D one chemoreceptor for attractants **II** and **III**, and another for attractant **I**.
- 42 The most appropriate control for the experiment represented in Figure 1 would be a container with bacteria
- A and attractant **I**, and a tube with no attractants.
  - B and attractant **I**, and a tube with only attractant **I**.
  - C but no attractant, and a tube with no attractants.
  - D but no attractant, and a tube with only attractant **I**.

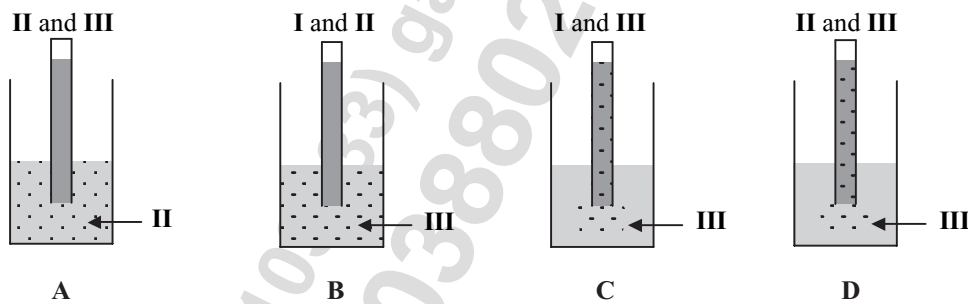




- 43 Suppose another experiment with the same species of bacterium was conducted. In this experiment, the first container's set-up and result were as represented in Figure 1 but the second container was different.
- If Julius drew the same conclusion from both experiments, which of the following was the most likely set-up and result for the second container?



- 44 Suppose that another experiment was conducted with another species of bacterium. In this experiment it was concluded that all three attractants are detected by the same chemoreceptor.
- If the first container's set-up and result were as illustrated in Figure 1, which of the following was most likely the set-up and result for the second container?



END OF SECTION 1

**STOP**

**DO NOT CONTINUE UNTIL YOU ARE TOLD TO DO SO**



## Section 2

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### SECTION 2

### Understanding People

### Questions 45 – 84

#### Questions 45 and 46

*The following conversation is between a mother and her adopted son. The child has been recently adopted and is about ten years old. He has a history of setting fires.*

- Mother:** Do you know why your birthmother arranged for you to be adopted?
- Child:** Because I was bad.
- Mother:** What did you do that was so bad?
- Child:** I set a fire in the basement.
- Mother:** How do you think your birthmother felt when she saw the basement on fire?
- Child:** She was scared.
- Mother:** How do you think she felt after the fire was put out?
- Child:** I don't know.
- Mother:** I think maybe she was scared in a different way. She was scared because she could see that if you were setting fires you needed help and she didn't know how to give you the help you needed. So she found a way to see that you had parents who could give you the help that she didn't know how to give.

- 45 How does the mother respond to her adopted son's perception that he did something bad?
- A She acknowledges the incident and exaggerates the seriousness.
  - B She clarifies the incident and recognises its serious implications.
  - C She overlooks the incident and reassures her son he is now in loving hands.
  - D She absolves her son of responsibility for an incident the birthmother should have prevented.
- 46 What does the mother seem to believe will be most helpful for her adopted son at this point?
- A to break connections with his birthmother
  - B to see his behaviour in a more positive light
  - C to understand that he is responsible for his behaviour but is not rejected
  - D to recognise that his adoptive mother will respond to his behaviour in the same way as the birthmother



## Questions 47 – 50

The following extract is taken from a text that explores different individuals' experiences of illness. The patient has undergone major abdominal surgery.

If there is a distinction between experiencing and remembering, it is lost on doctors. When the chief resident arrived, I repeated my request for pain killers. He said pain was an important indicator of what was going on inside me and they needed to know when and where I hurt. He could apply a local pain killer where the tube was inserted, which would help with the pain of the insertion; for the rest, he would give me something to relax me that would also erase my memory of the pain. I agreed to all this – again, I seemed to have no choice – but thought, 'Great, I'll suffer but I won't remember it and that's supposed to make it okay?'

- 47 How does the patient feel as a result of the consultation with the doctor?
- A He feels concerned that the pain will become worse.
  - B He feels confident the doctor will minimise the pain.
  - C He feels convinced the doctor does not take his pain seriously.
  - D He feels powerless to affect the way his pain will be managed.
- 48 How does the doctor respond to the patient's request for pain killers?
- A He convinces the patient that he can cope with the pain.
  - B He explains how and why doctors monitor pain in a certain way.
  - C He addresses the patient's fears and helps the patient to feel positive.
  - D He emphasises the skill of the doctors in avoiding painful procedures.
- 49 What is the patient most concerned about?
- A that he is expected to put up with a certain amount of pain
  - B that he won't be able to remember his experience of the pain
  - C that the pain he is experiencing may indicate serious problems
  - D that he will still remember the pain afterwards despite the medication
- 50 The doctor could have alleviated the patient's concerns by
- A emphasising his qualifications and experience.
  - B reassuring the patient that his concerns were unwarranted.
  - C imparting less information so as not to confuse the patient.
  - D acknowledging the patient's concerns and exploring them in more detail.



## Section 2

### Questions 51 – 55

The following extract is from a novel about a nine-year-old girl who is being mistreated by her peers. She is in the kitchen, baking a cake with her mother when, suddenly and unexpectedly, her mother raises the subject.

‘You don’t have to play with them,’ my mother says. ‘There must be other little girls you can play with instead.’

I look at her. Misery washes over me like a slow wind. What has she noticed, what has she guessed, what is she about to do? She might tell their mothers. This would be the worst thing she could do. Also I can’t imagine it. My mother is not like the other mothers, she doesn’t fit in with the rest of them. She does not inhabit the house, the way the other mothers do; she’s airy and hard to pin down. The others don’t go skating on the neighbourhood rink, or walk in the ravine by themselves. They seem to me grown up in a way that my own mother is not. I think of Carol’s mother in her twin set<sup>1</sup>, her sceptical smile, Cordelia’s with her glasses on a chain and her vagueness, Grace’s and her hairpins and drooping apron. My mother will turn up on their doorsteps, wearing slacks, carrying a bouquet of weeds, incongruous. They won’t believe her. 5 10

‘When I was little and the kids called names, we used to say, “Sticks and stones will break my bones but names will never hurt me,”’ she says. Her arm goes vigorously around, mixing, efficient and strong. 15

‘They don’t call me names,’ I say. ‘They’re my friends.’ I believe this. 15

‘You have to learn to stand up for yourself,’ says my mother. ‘Don’t let them push you around. Don’t be spineless. You have to have more backbone.’ She dollops the batter into the tins.

I think of sardines and their backbones. You can eat their backbones. The bones crumble between your teeth; one touch and they fall apart. This must be what my backbone is like: hardly there at all. What is happening to me is my fault, for not having more backbone. 20

My mother sets down the bowl and puts her arms around me. ‘I wish I knew what to do,’ she says. This is a confession. Now I know what I’ve been suspecting: as far as this thing is concerned, she is powerless.

<sup>1</sup> *twin set*: a short-sleeved pullover with a matching cardigan

51 What does the passage suggest about the mother’s attitude towards the treatment of her daughter?

- A She is angry about the treatment of her daughter.
- B She is trying to help her daughter but has little to offer.
- C She is embarrassed at not being able to assist her daughter.
- D She is confident that the advice she gives will help her daughter.



- 52 Which one of the following best describes how the daughter is feeling?
- A angry
  - B worried
  - C optimistic
  - D unconcerned
- 53 The comment by the daughter that 'My mother is not like the other mothers' (line 5) is best described as
- A proud and defiant.
  - B sarcastic and bitter.
  - C kind but misguided.
  - D critical but accepting.
- 54 Which one of the following would be of most help to the daughter at this stage?
- A The daughter takes the mother's advice to stand up to the bullies.
  - B The mother withdraws and lets the daughter resolve it by herself.
  - C The daughter recognises that she does not deserve to be mistreated.
  - D The daughter pretends that everything is all right and ignores the bullying.
- 55 Which one of the following is preventing the problem being solved?
- A the mother's inability to relate to the other mothers
  - B the daughter's failure to hide the effects of bullying
  - C the mother's lack of interest in her daughter's welfare
  - D the daughter's inability to accept that she is being mistreated



## Section 2

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### Questions 56 – 60

*In the following passage, a man relates his experience of being hospitalised after an accident.*

The young doctors stood beside me discussing another patient as I lay looking at the ceiling. The human relationship to surrounding space changes for an invalid. We have a closer relationship with the floor and ceiling of a room when seen from a bed or wheelchair and decreased contact with the doors, windows and walls at hand.

‘So you were hit by a lorry,’ said one. 5

‘Yes,’ I said, gazing at the corner angle of the room where three surfaces joined with perfect precision.

‘I had a near miss once,’ he replied.

‘I had one last week,’ said his colleague joining in a sort of ‘near miss’ contest.

‘I was coming over a rise,’ continued the first, ‘only doing eighty, and found a huge lorry on the wrong side of the road overtaking a car. I just got back in time. It could have been very nasty,’ he said, feeling the muscle wasting in my thigh with incidental interest. 10

‘Mine happened on the freeway last Tuesday,’ continued the other. ‘Which day were you hit?’ he asked, turning his attention to me.

‘Thursday,’ I said with rising fascination. 15

‘Mine was last Tuesday, busy traffic, wet road, all the lanes full and suddenly this huge lorry changes lanes without any indication and nearly sends me into the next life. Really shook me up, I can tell you,’ he said in a tone which expected my sympathy.

I remained silent.

‘How long has this plaster been on now?’ he asked vaguely. 20

‘Five weeks.’

‘Five. And then I watched him speeding off and thought, if you go on like that, mate, you’ll finish up killing someone.’

‘Or worse,’ said the other.

‘Worse?’ I enquired, genuinely wondering how this keen medical mind worked. 25

‘Yes, finish up making someone a vegetable.’

‘I see,’ I said.

‘There are some crazy people out there,’ he concluded.

And there are some strange people in here, I thought, still remaining silent.

**56** The first paragraph (lines 1–4) suggests that patients in hospital often feel

- A** secure.
- B** resentful.
- C** frightened.
- D** disoriented.



- 57 The doctors' conversation makes the patient feel
- A neglected and insignificant.
  - B valued and the centre of attention.
  - C worse, as it re-lives the pain and horror of his own accident.
  - D better, as it helps him realise that the doctors understand his situation.
- 58 The patient's behaviour during this conversation is best described as
- A petty and ungrateful.
  - B suspicious and fearful.
  - C reserved and disapproving.
  - D submissive and intimidated.
- 59 The doctors' manner during the examination suggests
- A an acute awareness of the patient's feelings.
  - B a lack of sensitivity to the patient's feelings.
  - C a genuine interest in the patient's circumstances.
  - D a natural ability to make the patient feel comfortable.
- 60 The patient's silence at points in the conversation (lines 19 and 29) indicates
- A anxiety about his injuries.
  - B respect for the doctors' status.
  - C displeasure at the doctors' behaviour.
  - D confusion about the doctors' questions.



## Section 2

### Questions 61 – 66

The following extract is taken from a text that is written by a son about his dying father. The father is a retired doctor.

In Room 2, Ward 19, I want to shake him. I want to put a bomb under him. I want him to be dead rather than die like this.

‘I know you don’t feel right, Dad, but operations take it out of people, they feel flat afterwards, and you are much stronger than you were three days ago.’

‘I am that.’

‘And the doctors are happy. And once you’re eating properly and in your own home ...’

I don’t know whether this blather is for his sake or mine – because it’s the sort of cheeriness he goes in for himself and feels comfortable with; or because I can’t bear to admit he’s dying. I know they have opened him up and closed him again without doing anything other than pass a tube across his stomach. I know this can’t help him regain his appetite or health. I know that if he doesn’t start peeing soon, his kidneys will become infected, and then pack up altogether. And I know that he knows all this, knows too much about the body to be deluded. Physician, diagnose thyself: well, he has, and that’s why he’s depressed.

‘And you might not feel like visitors now, but there are lots of friends who want to see you, and in a week you’ll be different.’

He looks at his watch and says: ‘Number One, your five minutes are up. Come in Number Two. Your five minutes are up too, Two. Come in Number Three ... No thanks.’

61 The word that best describes how the son feels when he first comes to visit his father (lines 1 and 2) is

- A pity.
- B sadness.
- C frustration.
- D aggression.

62 The father’s response in lines 16 and 17 shows he

- A is offended by his son’s tone.
- B is reassured by his son’s support.
- C is determined to fight his condition.
- D believes his son’s support is pointless.

63 The son repeats the phrase ‘I know’ four times between lines 8 and 11. He does this probably because he

- A is trying to face up to his father’s condition.
- B is confident that he knows exactly what is going on.
- C does not know what else to think in such a situation.
- D is trying to convince himself that his father is not that sick.





- 64 The son's comments to his father are an attempt to
- A be honest about his father's condition.
  - B suggest his father is exaggerating his condition.
  - C make light of the situation to take his father's mind off it.
  - D hide his feelings while trying to make his father feel more positive.
- 65 How does the son feel generally about his father's illness?
- A He prefers to focus on when his father will be well again.
  - B He avoids thinking about it because he can't comprehend it.
  - C He appreciates that his father is ill but he does not want to dwell on it.
  - D He is aware that he needs to come to terms with it but is struggling to.
- 66 The son believes that his father is depressed (line 13) because
- A he does not want visitors.
  - B it is common to feel depressed in hospital.
  - C he understands the extent of his own illness.
  - D he is confused about what's happening to him.



## Section 2

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### Questions 67 – 70

*Below is one woman's perspective of recovering from depression.*

Looking back, I think the road to recovery started one day some years ago when I took myself to yet another doctor. My thoughts as I sat down in the waiting room were of fear, apprehension and uncertainty. But somewhere inside myself I still had hope. I confided in the doctor and told her I felt like a silly, neurotic woman. I told her I should be able to help myself and not need to come to her. Just pick myself up with the help of family and friends. She sat back in her chair and said 'I don't think you are a silly woman and I don't expect you to do it on your own'.

5

- 67 The doctor's response is best described as
- A supportive.
  - B insensitive.
  - C ambiguous.
  - D challenging.
- 68 What was it about the doctor's response that the woman probably found most significant?
- A The doctor seemed to take the woman seriously.
  - B The doctor promised the woman she would get better.
  - C The doctor played down the seriousness of the woman's condition.
  - D The doctor confirmed the woman's own thoughts about the condition.
- 69 The passage suggests that the woman's previous consultations with doctors had
- A left her feeling unsupported.
  - B helped her keep her illness in perspective.
  - C helped her more than she realised at the time.
  - D made her condition worse.
- 70 In thinking of herself as a 'silly, neurotic woman' (line 4), the woman reveals her
- A self-insight.
  - B sense of hope.
  - C sense of shame.
  - D sense of humour.



## Questions 71 – 74

*In the following passage the mother of a severely disabled son reflects on a recurring dream that she has.*

In this dream, it's just like he's normal, he speaks to me. It is not as if I think this would really happen. He's twenty-one! But I can lose myself in this dream. Wrenching myself awake is like walking into a nightmare. I don't mean that my son is a nightmare; I just mean that life is so exhausting and all I want is some peace and quiet. For most other people, life is just the opposite – they wake from their nightmares!

- 71 The mother regards the dream as representing her
- A profound belief in the healing power of dreams.
  - B refusal to face the reality of her son's condition.
  - C deep yearning for something that will never happen.
  - D failure to fully understand her son's influence on her life.
- 72 The mother finds the dream
- A uplifting.
  - B perplexing.
  - C deeply disturbing.
  - D temporarily consoling.
- 73 Which one of the following best describes the mother's attitude to caring for her son?  
She feels
- A committed but overwhelmed.
  - B dispassionate and quite calm.
  - C bewildered and unable to cope.
  - D sometimes irritated but mostly positive.
- 74 The mother regards the dream as offering her some form of
- A hope.
  - B relief.
  - C inspiration.
  - D perspective.



## Section 2

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### Questions 75 – 80

*Steve and Madeline are in their early 30s and have been married for three years. They have a large mortgage and have borrowed heavily from Madeline's parents. Here, they are discussing their finances.*

- Steve:** I really hate it when you say we can't afford to go out with our friends. It's not as if we go to fancy places and spend heaps of money. We have to have some fun in our lives. 1
- Madeline:** It's all very well for you to say we don't spend a lot of money on going out, but that's money we're not paying back to my parents. 2
- Steve:** Look Madeline, do you know how sick and tired I am with you going on and on about how much we owe your parents? They've got heaps of money and were only too happy to lend it to us. 3
- Madeline:** That's not the point, Steve. My parents worked hard for their money. They both worked 12 to 14 hours a day. I want to repay them as soon as possible. 4
- Steve:** Sorry Madeline. I'm not some sort of machine who can just work, work, work. I want a life. I value our friends and want to relax and have fun. 5
- Madeline:** How can you have that attitude when we owe them so much? It's so embarrassing for me to tell them we have been going out so much. 6
- Steve:** I can't believe I'm hearing this. We only go out once a week, if that. That's not much. Before I met you I was out all weekend and some week nights too. 7
- Madeline:** But now that you are married you have other responsibilities. Especially to my parents. When are we ever going to be able to afford to have a baby? 8
- Steve:** Look, we are just arguing in circles. Your parents' money, having a baby. What about what I want? 9

75 In Comment 5, Steve's main point is that

- A Madeline does not appreciate his work.
- B Madeline's expectations are too demanding.
- C Madeline should recognise that he is already exhausted from working so hard.
- D Madeline should recognise that it is impossible to juggle both work and leisure activities.

76 Madeline's main reason for mentioning her parents' work ethic is to

- A strengthen Steve's relationship with them.
- B convince Steve that his own attitude is misguided.
- C emphasise her pride in her parents' financial status.
- D help Steve overcome his personal sense of inadequacy.



- 77 Overall, how does Steve seem to feel about Madeline's concerns?
- A resentful
  - B chastened
  - C indifferent
  - D sympathetic
- 78 In what way does Steve view Madeline's attitude as unreasonable?
- A Madeline is using her family against him.
  - B Madeline is trying to dictate how he should live his life.
  - C Madeline is not prepared to make the same sacrifices herself.
  - D Madeline is not making enough effort to socialise with his friends.
- 79 For Madeline and Steve, the issue of the borrowed money appears to be
- A a point of ongoing tension.
  - B an unfamiliar issue in their relationship.
  - C a relatively minor issue in their relationship.
  - D something they have made some progress towards solving.
- 80 How would Madeline most likely react to Steve's final comment?
- She would
- A agree to disagree.
  - B be hurt and offended.
  - C be grateful for his honesty.
  - D accept blame and apologise.



## Section 2

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### Questions 81 – 84

*In the following passage, a woman reflects on the treatment received by her husband, who had Alzheimer's disease, in the emergency department of a hospital.*

The job of the emergency team was to keep my husband alive. The problem: he was in the final stages of Alzheimer's. It was time for him to die; his mind was gone, his body failing. He spent his days in diapers<sup>1</sup>, spoon-fed, bed-bound. For 24 hours, despite my protestations and his carefully-written will, the doctors transfused him with pint after pint of blood. I have since forgiven them; they were only doing their job. They have one mission: to save lives. That my husband had Alzheimer's was not their concern; that he was bleeding to death was.

5

<sup>1</sup> *diapers*: American term for nappies

- 81** From the wife's perspective, the emergency team was
- A diligent but misguided.
  - B negligent and incompetent.
  - C sympathetic but indecisive.
  - D competent and understanding.
- 82** What was the wife's main concern during her husband's treatment?
- A the pain her husband was in
  - B her husband's quality of life
  - C whether her husband could be cured
  - D the humiliation of being ignored by the medical staff
- 83** The comment, 'I have since forgiven them; they were only doing their job' (lines 4 and 5), suggests that the wife
- A now recognises that the doctors were right to do what they did but is not willing to admit it.
  - B now recognises that the doctors were right to do what they did and regrets her behaviour at the time.
  - C still believes that her husband's treatment was inappropriate but recognises the doctors are not to blame.
  - D still believes that her husband's treatment was inappropriate and is condemning the doctors through sarcasm.
- 84** Which of the following would have most helped the wife in this situation?
- A having the various medical procedures explained to her more fully
  - B being reassured that her husband was getting the best treatment available
  - C being given permission to leave the emergency room if she found it distressing
  - D feeling that her concerns were understood and appreciated by the medical staff



END OF SECTION 2

**STOP**

**DO NOT CONTINUE UNTIL YOU ARE TOLD TO DO SO**



# Section 3

SECTION 3

Non-Verbal Reasoning

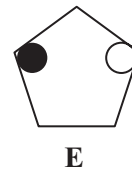
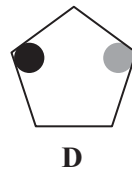
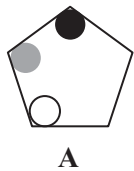
Questions 85 – 122

Questions 85 – 98

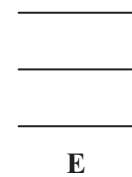
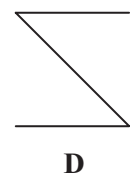
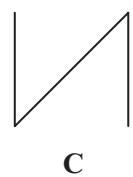
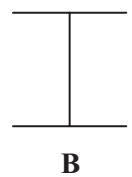
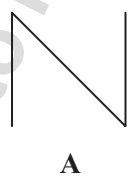
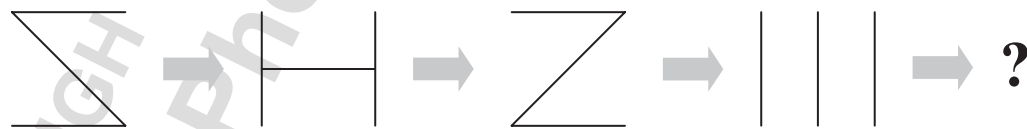
Next in the Series

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

85



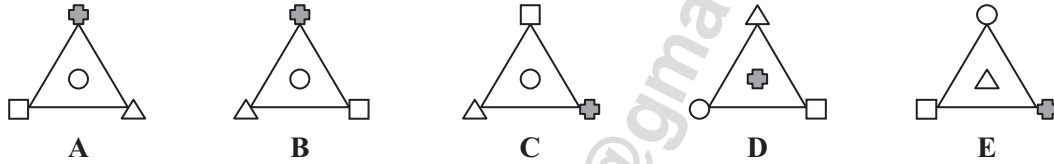
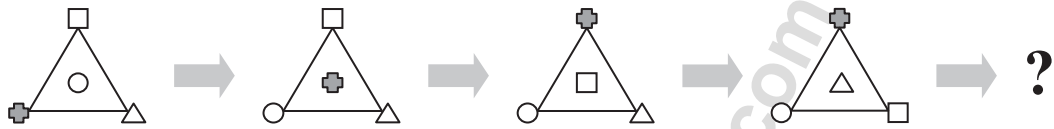
86



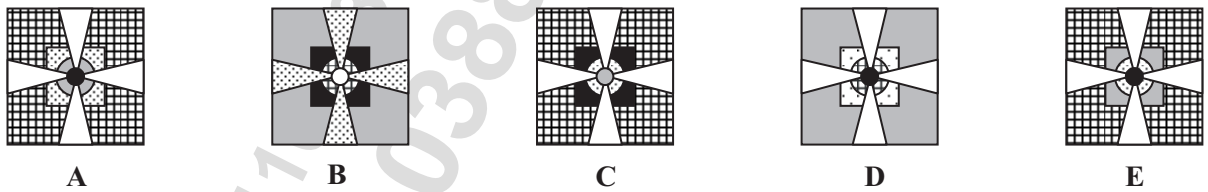
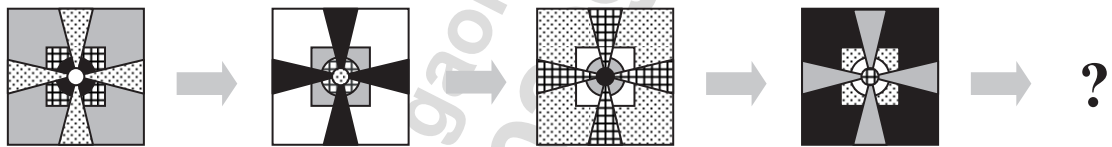




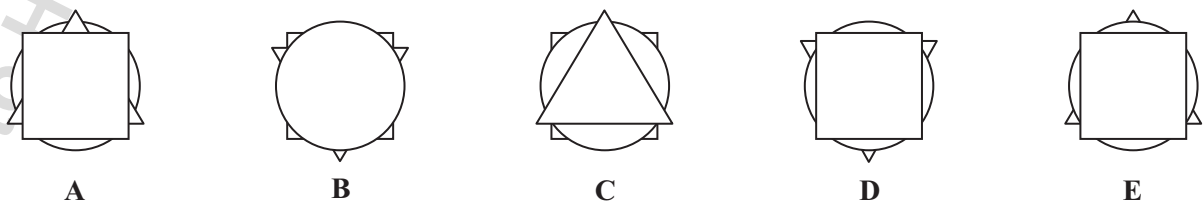
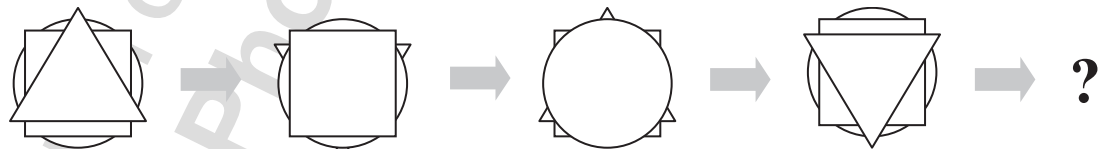
87



88



89



CONTINUE STRAIGHT ON →



### Section 3

90

A B C D E

91

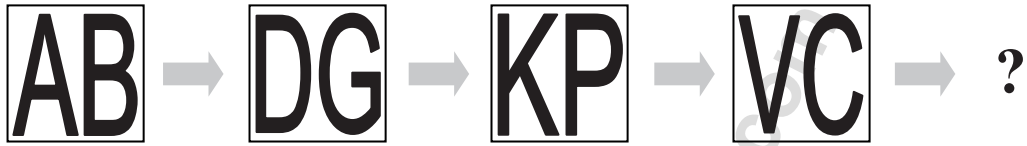
A B C D E

92

A B C D E



93



A



B



C

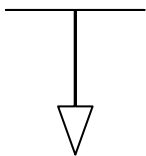
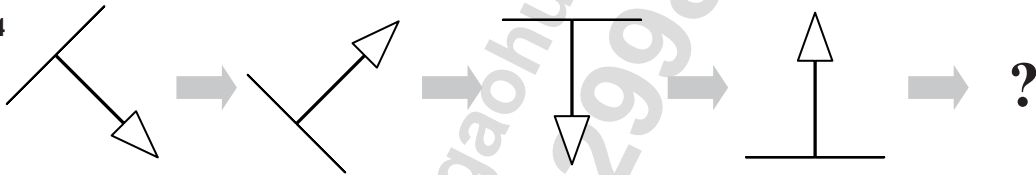


D

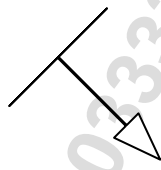


E

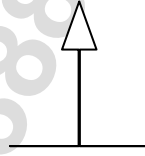
94



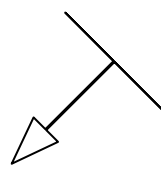
A



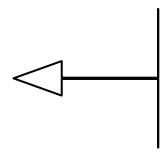
B



C

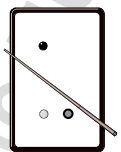
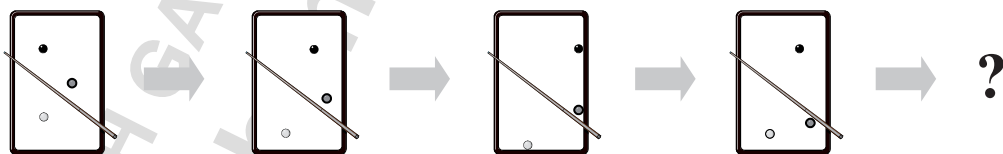


D

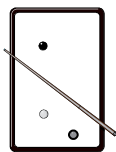


E

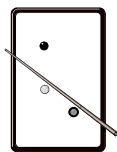
95



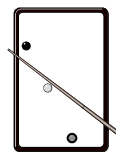
A



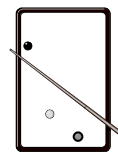
B



C



D



E

CONTINUE STRAIGHT ON →



### Section 3

96



A



B



C

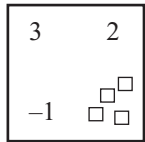
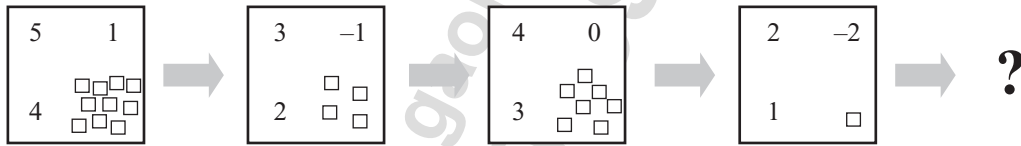


D

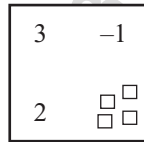


E

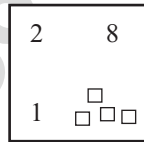
97



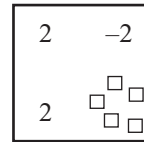
A



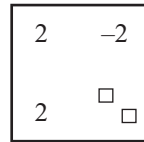
B



C

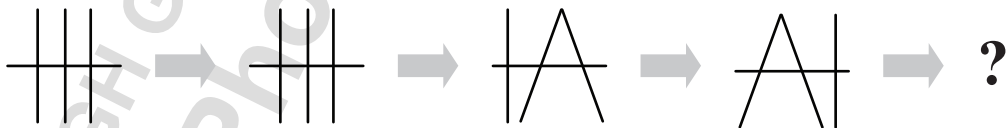


D



E

98



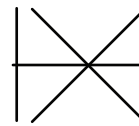
A



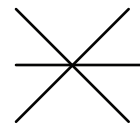
B



C



D

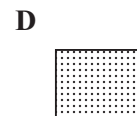
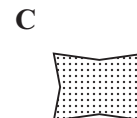
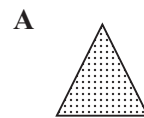
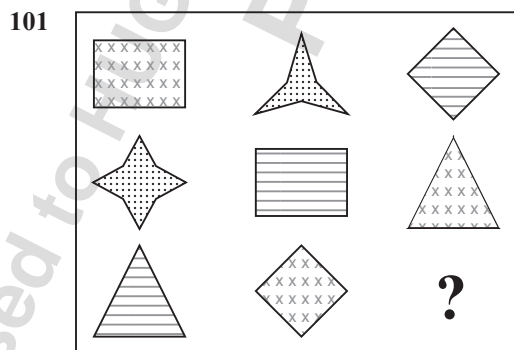
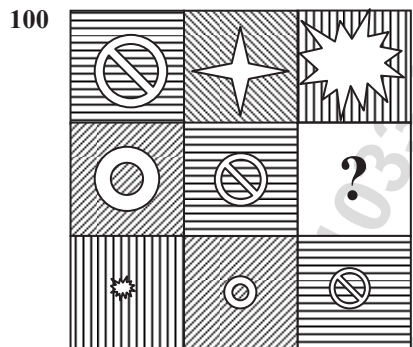
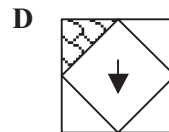
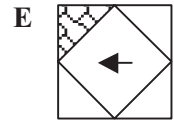
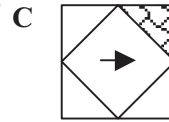
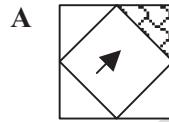
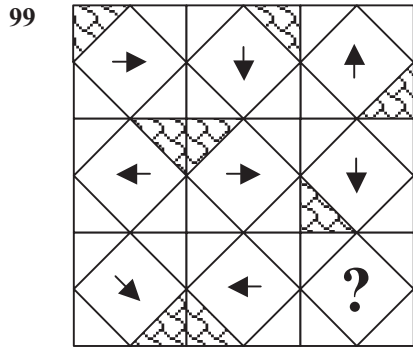


E



Questions 99 – 110 Missing Segment

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

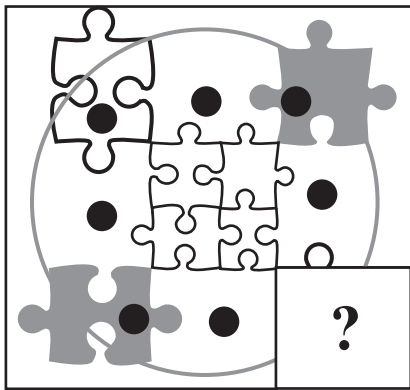


CONTINUE STRAIGHT ON →

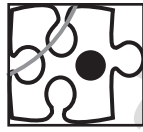


# Section 3

102



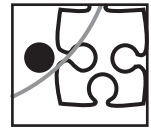
A



C



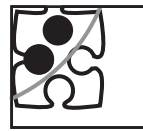
E



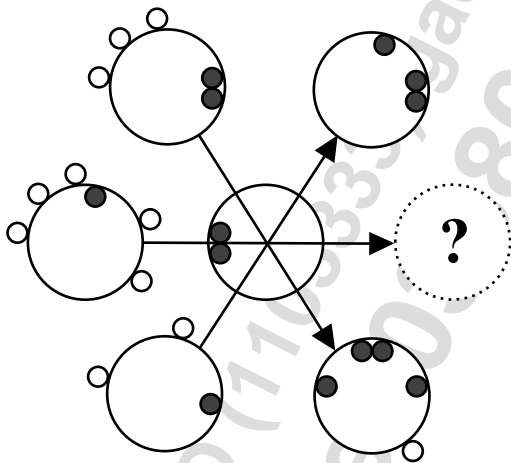
B



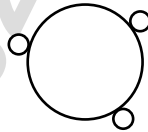
D



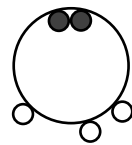
103



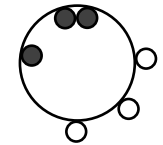
A



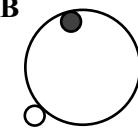
C



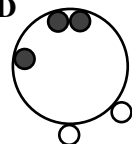
E



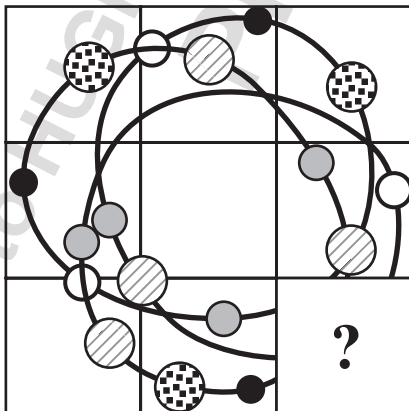
B



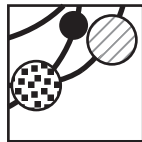
D



104



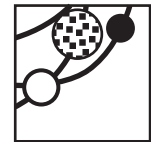
A



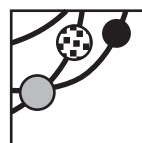
C



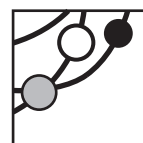
E



B

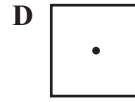
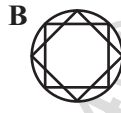
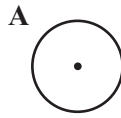
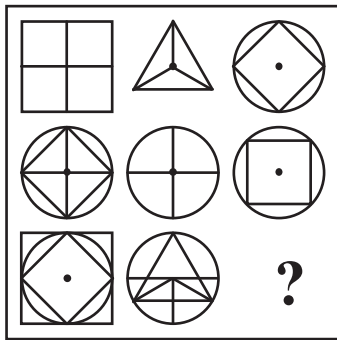


D

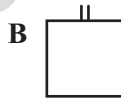
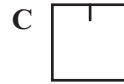
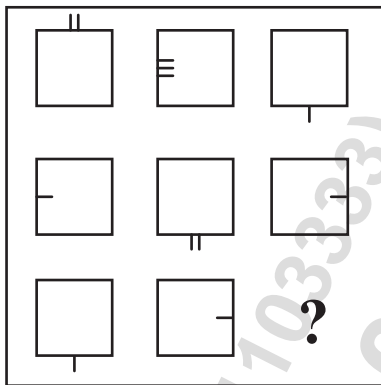




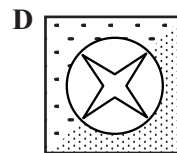
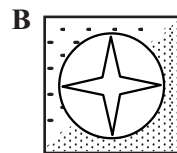
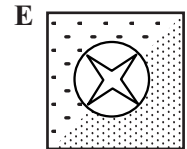
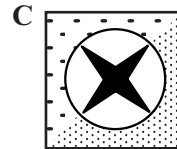
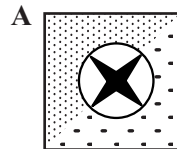
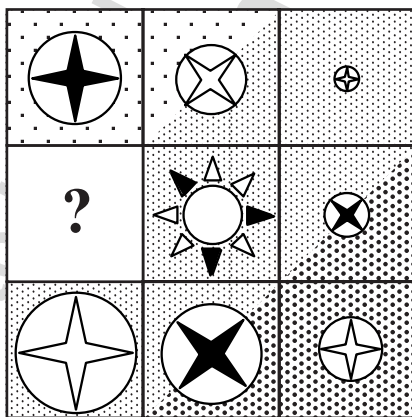
105



106



107

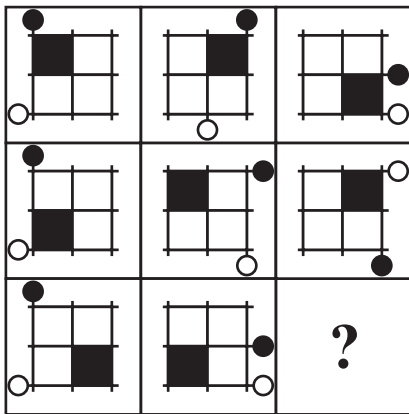


CONTINUE STRAIGHT ON →

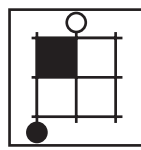


# Section 3

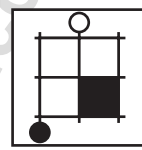
108



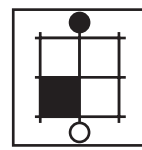
A



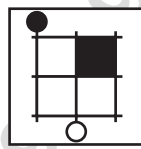
C



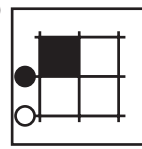
E



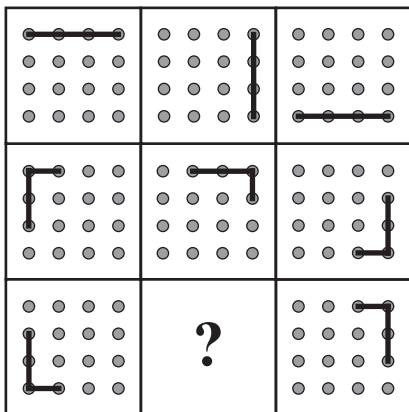
B



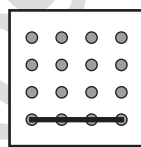
D



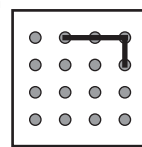
109



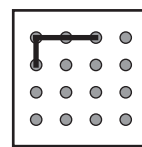
A



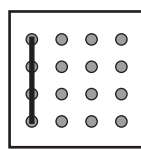
C



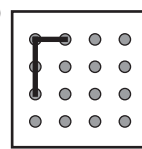
E



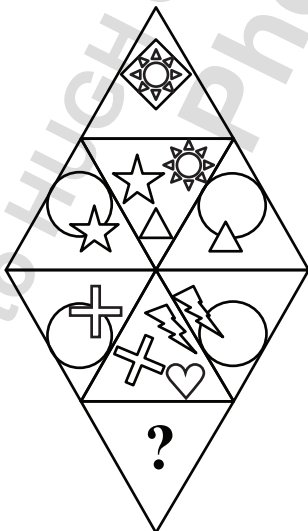
B



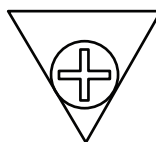
D



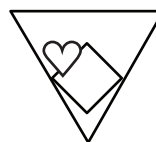
110



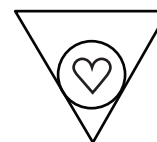
A



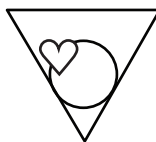
C



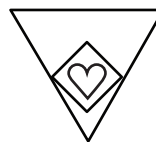
E



B



D



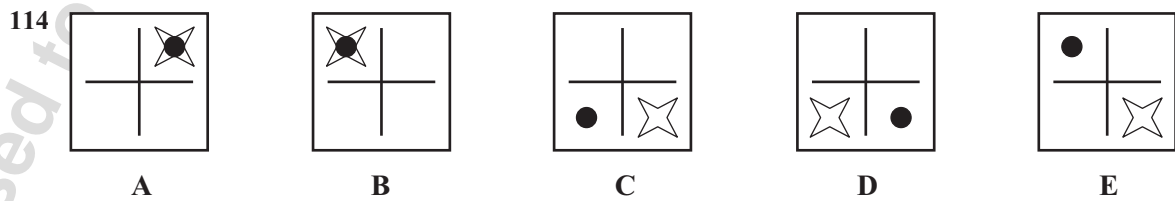
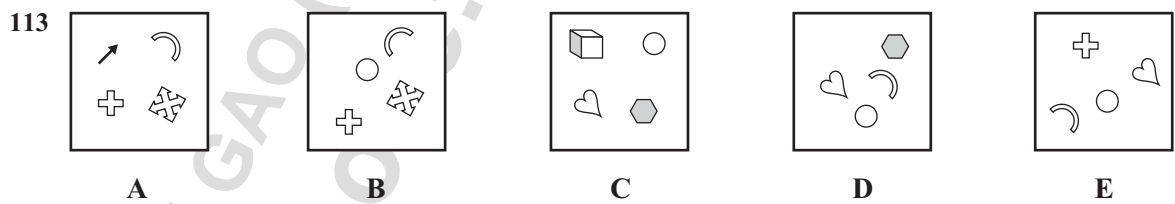
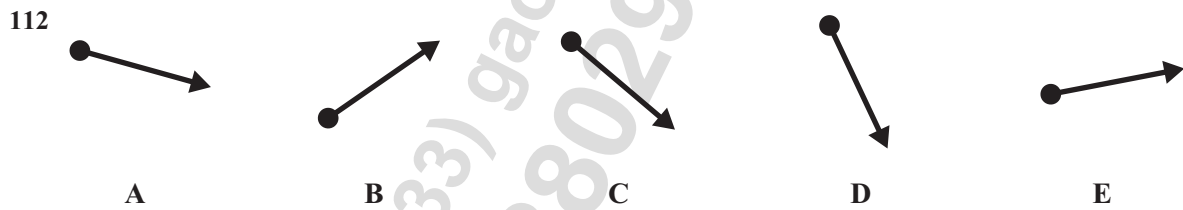
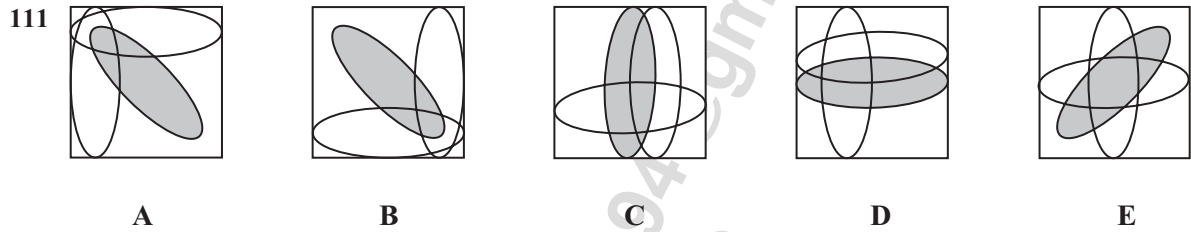




Questions 111 – 122 Middle of the Sequence

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.

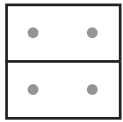


CONTINUE STRAIGHT ON →

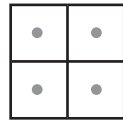


### Section 3

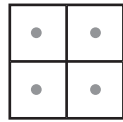
115



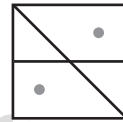
A



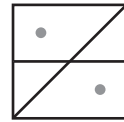
B



C



D

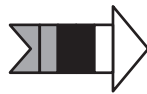


E

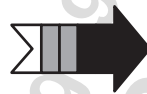
116



A



B



C

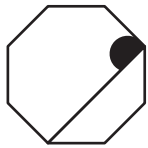


D

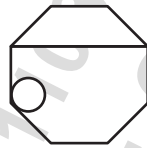


E

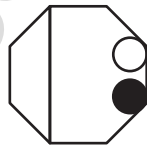
117



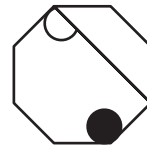
A



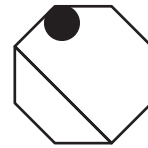
B



C

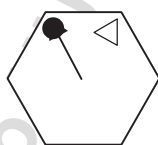


D

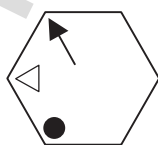


E

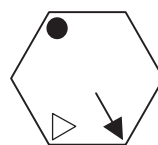
118



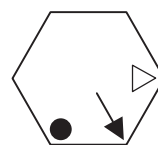
A



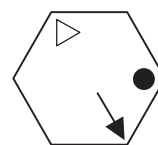
B



C



D



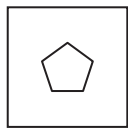
E



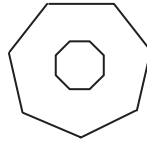
119



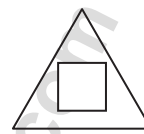
A



B



C

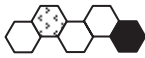


D



E

120



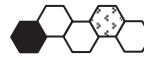
A



B



C

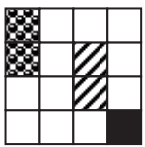


D

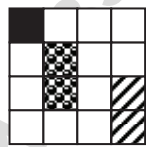


E

121



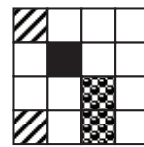
A



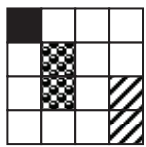
B



C

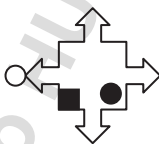


D

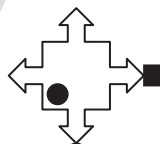


E

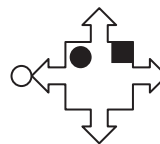
122



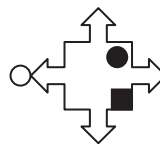
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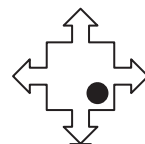
B



C



D



E

END OF TEST



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# UMAT

TEST VENUE

UNDERGRADUATE MEDICINE AND HEALTH SCIENCES  
ADMISSION TEST

### INSTRUCTIONS

- Use pencil only, preferably 2B
- Do not use any pens or biros
- Erase mistakes fully
- Make no stray marks



Please  
**MARK LIKE THIS ONLY:**



**Example:**

Please write in boxes here, then mark oval corresponding to the number in each column.

UMAT  
CANDIDATE N°  
3 1 2 1 0 0

0	1	2	3	4	5
6	7	8	9	0	1
2	3	4	5	6	7
8	9	0	1	2	3
4	5	6	7	8	9
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**ACKNOWLEDGMENTS:** Atwood, Margaret. *Cat's Eye*, Bloomsbury Publishing Ltd., London, 1989, pp. 156–157; Extract from *Making Sense of Adoption: A Parent's Guide* by Lois Ruskai Melina, Harper and Row Publishers Inc., New York, 1989; Extract from *Cry of the Damaged Man* by Tony Moore. Reprinted by permission of Pan Macmillan Australia Pty Ltd. Copyright © Tony Moore 1991; Morrison, Blake. *And When Did You Last See Your Father?*, Granta Books, London, 1993; Jeanine Young-Mason. *The Patient's Voice: Experiences of Illness*. © 1997 by F.A. Davis Company.



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# ANSWERS

## Section 1

---

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

## Section 2

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

## Section 3

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



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