2014 MATRIX UMAT PRACTICE PAPER

Time allowed: 3 hours
William is the type of person who lives their life in the “fast lane”. He didn’t follow the trends but he made them. At least that was what he said about himself.

Image and public perception were his two fundamental principles. He honestly didn’t even care about money. However, he reluctantly conceded that money contributed to the public image he had created for himself. Hence if he wanted to stay true to himself and his values, money was a necessity. It wasn’t his fault for the way society had degenerated. He followed the necessary steps to keep his business prosperous and in the end this benefits the workers. He cared for them, he really put their considerations high on his mental checklist.

Not that he knew their names. Wasn’t worth the effort but then again nowadays he barely remembered his mother’s name. He just didn’t have the time. He did however have a close relationship to one “she” in his life. His Lamborghini Gallardo. His car had enough style and finesse to warrant a feminine status. With the little free time he had, most of it he devoted to the lady in the garage. He felt more himself with it. Whenever he drove it, it let him pass the other cars, leaving them behind in a blur.

**QUESTION 1**

What is the narrator attempting to achieve in the first paragraph?

a) He is undercutting William’s character.
b) He is reflecting how William’s opinion of himself matches that of the public’s.
c) He is establishing how successful William is.
d) He is trying to demonstrate how different William is.

**QUESTION 2**

What do William’s fundamental principles suggest about his character?

a) His self-confidence relies on what the public thinks of him.
b) He is not a very moral person.
c) He is a realistic person.
d) He is a good business-man.
QUESTION 3

What is the main connection being portrayed between the car and William?

a) Just as the car is extravagant and excessive, so is William’s lifestyle.
b) Both the car and William are stylish and refined.
c) The way the car drives, is similar to William’s approach to people.
d) The relationship that William has with his car is the only important facet of his life.

Select the alternative (A, B, C, D or E) that most logically and simply continues the series.

QUESTION 4

![Diagram with options A, B, C, D, E]

QUESTION 5

![Diagram with options A, B, C, D, E]
Australia says it will create the world's largest network of marine parks ahead of the Rio+20 summit.

The reserves will cover 3.1 million sq km of ocean, including the Coral Sea. Restrictions will be placed on fishing and oil and gas exploration in the protected zone covering more than a third of Australia's waters. Environment Minister Tony Burke, who made the announcement, will attend the earth summit in Brazil next week with Prime Minister Julia Gillard.

"It's time for the world to turn a corner on protection of our oceans," Mr Burke said. "And Australia today is leading that next step." Australia has timed its announcement to coincide with the run-up to the Rio+20 Earth Summit - a global gathering of leaders from more than 130 nations to discuss protecting key parts of the environment, including the ocean, says the BBC's Duncan Kennedy.

The plans, which have been years in the making, will proceed after a final consultation process. Last year, the Australian government announced plans to protect the marine life in the Coral Sea - an area of nearly 1 million sq km.

The Coral Sea is home to diverse wildlife, including sharks and tuna.

The sea - off the Queensland coast in northeastern Australia - is home to sharks and tuna, isolated tropical reefs and deep sea canyons. It is also the resting place of three US navy ships sunk in the Battle of the Coral Sea in 1942.
The network of marine reserve will also include the Great Barrier Reef, a Unesco World Heritage site. The plan will see the numbers of marine reserves off the Australian coast increased from 27 to 60.

**Question 6**

According to the passage the marine sanctuary is:

a) Part of the Rio Earth Summit.

b) A recently planned initiative.

c) Primarily in the region of the Coral Sea.

d) Envisaged as a large protected marine area surrounding Australia.

**Question 7**

According to the extract the purpose of the marine sanctuary is to:

a) Improve Australia’s international image.

b) Protect marine creatures and their habitat.

c) Maintain tourism by protecting marine tourist attractions.

d) All of the above.

*Read the following passage and answers 8-12*

Charlotte and I have been friends for years. We were out for lunch because she had some big news to tell me. As I sat in front of her she looked as though she was on the verge of internally combusting if she couldn’t talk soon.

Smiling, I asked, “So spit it out. Why did you bring me here?”

“Oh Penelope. I had to tell you first. Well after Matt and my parents of course. But I’m pregnant!”

While she spoke, my face had frozen into a glazed mask plastered with a massive smile. I hadn’t told her that Mark and I had been trying for years now. I feel that over the years I have been a good wife and an independent woman. I have never believed in the archaic notion that all women have to have children to be a complete person. Yet this had stung more than any low point in my life. And I just couldn’t share it with anyone else.

“I was so shocked because we had barely been trying.”

“Hmm. Yes. Well I’m so happy for you.” I felt like knots were being tied and pulled tightly inside me.
“I can’t believe how lucky I am. You should start trying soon, and then our kids could grow up together just like we did. Wouldn’t that be perfect?”

I stood up so quickly that my chair toppled behind me. Cringing at the noise, I quickly said “Sorry, I just need to use the bathroom.”

Practically running away, I could hear her calling after me but I couldn’t bear my failure being thrown back in my face any longer.

**QUESTION 8**

What best describes the relationship between Penelope and Charlotte?

a) Charlotte is more invested in the friendship than Penelope.
b) They have a very close and generally comfortable relationship.
c) It won’t be able to continue due to Charlotte’s pregnancy.
d) They have a very competitive relationship.

**QUESTION 9**

How is Charlotte feeling about being pregnant?

a) Baffled and nervous
b) Elated and ebullient
c) Amicable and resolved
d) Shocked and self-absorbed

**QUESTION 10**

What does Penelope bringing up the fact that some people believe that women must have children suggest?

a) Societal expectations are a major factor in her desire to have a baby.
b) She thought a lot before deciding to have a baby.
c) She does not want to appear as though she is reaching for what society thinks she should have.
d) Having a baby is a very personal desire for her.
QUESTION 11

Why does Penelope run away to the bathroom?

a) She felt like Charlotte was throwing it in her face that she was not get pregnant.
b) Listening to Charlotte made her remember how she was not pregnant.
c) Charlotte’s happiness had become repulsive.
d) She couldn’t listen to Charlotte talk about happy she was about being pregnant.

QUESTION 12

What is Penelope likely to do next?

a) Tell Charlotte she has already been trying and failed.
b) Remain in the bathroom until Charlotte comes get her.
c) Call Mark and complain about what has happened.
d) Try regain her composure and return to Charlotte.

QUESTION 13

Select the alternative (A, B, C, D or E) that most logically and simply continues the series.

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A  B  C  D  E
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Questions 16 – 18 are based on the following information:

The Union of Concerned Scientists has revised a report accusing major US companies of distorting the public conversation about climate change, saying it made a mistake counting donations from General Electric to thinktanks.

The survey of 28 companies found a big gap in some instances between corporate messages on climate change and less visible activities, with some companies quietly lobbying against climate policy or funding groups which work to discredit climate science. The campaign group concluded that such confusion set back efforts to address climate change.
The Guardian reported on the study last month. But the campaign group said on Wednesday it had been wrong to count funds GE gave to four conservative thinktanks that work to undermine climate science and block action on climate change. It also released a revised version of the report.

The group said in a statement the funds to those thinktanks were awarded under a matching gift programme that allows individual employees at GE to determine where their donations would go. "By contrast, funds from GE and its corporate foundation are directed by company executives," the campaign group said. "We now conclude that GE has only funded thinktanks that support climate science."

Andrew Williams, a spokesman for GE, described the earlier report as "sloppy". He added: "GE's position on climate change has been clear for years – it is real, it is measurable, and it is happening. GE works in a variety of industries and we often partner with outside groups because we share some common interest, but denying climate change is not one of them."

However, the campaign group noted that GE, as a company, continued to support trade groups that work to block climate policy. GE also supported the 2010 referendum to overturn California’s climate change law, said Gretchen Goldman, who wrote the report, on Wednesday.

**Question 16**

According to the passage GE has been

a) Found to be directly funding thinktanks that discredit climate science.
b) Cleared of charges of directly funding the efforts to discredit climate change.
c) Shown to be completely transparent in its climate science activity.
d) Revealed to be engaged in public relations duplicity.

**Question 17**

According to the passage funds had been transferred to thinktanks that discredit climate science

a) By GE employees on an independent basis.
b) By GE but at the direction of individual employees
c) By GE shareholders.
d) By GE at the instigation of its majority shareholders.
Question 18

According to the passage GE as a corporation appears to be

a) Completely exonerated in relation to its stance in relation to climate science
b) Acting in an unprincipled and clearly duplicitous manner.
c) Both funding climate change research and working to oppose legislative change.
d) A company leading the way in corporate sustainability.

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Read the following dialogue between Henri and his wife’s, Madison’s doctor. Madison was recently in a car accident. Then answer questions 19-22.

Doctor Wren is standing at the edge of the ward, waiting for a few moments. Henri is stroking his wife’s hands and staring at the machines. His eyes are red and his clothes are dishevelled.

Doctor Wren: Henri (Henri does not respond) … Henri (startled Henri turns around). Henri, I need to speak to you outside for a few moments.

Henri: So what’s the news? I really need something good Doctor.

Doctor Wren: I know but I’m afraid I can’t give you any today.

Henri: I knew it. (Henri starts crying) Oh god I’m sorry mate. You haven’t even said anything yet.

Doctor Wren: It’s ok Henri. This would be a hard situation for anyone to be in. Do you need a few moments before I continue?

Henri: Nahh I’m fine now. I just needed a moment.

Doctor Wren: Ok. It has been determined that your wife is officially brain dead. She can no longer function on any level or respond to any stimuli.

Henri: Alright. So what are we going to do about it?

Doctor Wren: I’m afraid there is nothing left for us to do. It’s your decision but I recommend that we should take her off life support. Otherwise, we’re just delaying the inevitable.

Henri: NO! No. I can’t give up on her just like she never existed. She’s still in there I’m telling you.

Doctor Wren: I’m sorry but there is nothing left for us to do. Again, it is your choice but we can only continue this for so long.

Henri: My wife is not some commodity that we’re giving up on.
QUESTION 19
How is Henri feeling at the beginning of the conversation?

- a) Disillusioned and reverential
- b) Disheartened and concerned
- c) Irresponsible and overwhelmed
- d) Daunted and inattentive

QUESTION 20
Why does Henri apologise in the fourth line of dialogue?

- a) He realised the doctor would be unaccustomed to such displays of emotion.
- b) He was embarrassed by his show of emotion.
- c) He was apologising for interrupting.
- d) He thinks it’s inappropriate to cry in front of other people.

QUESTION 21
What best describes the Doctor’s manner towards Henri in this conversation?

- a) Distant, he was not invested in the case.
- b) Cold, he dismissed Henri’s feelings.
- c) Consoling, he attempted to make Henri feel better and reassuring him.
- d) Professional, he informed Henri and is being sensitive to his situation.

QUESTION 22
Why is Henri against taking his wife off life support?

- a) He is in denial over his wife’s condition.
- b) He thinks that it is not his place to intervene in the course of death.
- c) He cannot lose faith that she may survive.
- d) It goes against his religious beliefs.
QUESTION 23

is to as

is to

A  B  C  D  E
Select the alternative (A, B, C, D or E) that most logically and simply continues the series.

QUESTION 24

A: GI  B: HG  C: HH  D: IG  E: IH

MC → NB → KE → PZ → ?

QUESTION 25

A:  B:  C:  D:  E:

?  

QUESTION 26

A:  B:  C:  D:  E:

?  

Questions 27 - 29 are based on the following information:

The human population

Like all living things, humans exploit their surroundings for resources. Before the beginning of agriculture about 10,000 years ago, small groups of humans wandered across large areas, hunting and gathering just enough food to stay alive. Population numbers were kept low because of the difficulty of finding food.

Population growth

The development of agriculture led to a population explosion that has accelerated enormously during the past 500 years. Unlike other species, humans can adapt to and survive in almost all habitats and climates.

Human population growth over the past 10,000 years

The graph shows that the human population is growing exponentially - the population increases by more each year. This is because the birth rate is greater than the death rate.

Resources

The growth in the human population is increasing the use of finite resources. These resources include

1. fossil fuels such as coal, oil and natural gas are being used up rapidly
2. raw materials such as metal ores and other minerals are being used up rapidly.
Question 27

According to the passage the human ability to adapt to surroundings has:

a) Given them a competitive advantage over other species.
b) Been the result of cognitive superiority.
c) Enabled an expansion of population.
d) Been evident primarily in the past 500 years.

Question 28

According to the graph human population since 4000 BCE has:

a) Grown steadily to more than 6 billion.
b) Increased by 5000%.
c) Increased exponentially to over 6 billion.
d) Increased relentlessly to more than 6 billion.

Question 29

According to the information we can conclude that human population growth has led to:

a) The destruction of less adaptable species.
b) Scarcity of important resources.
c) Technology-related issues like global warming.
d) Wars and other conflict as humans run out of geographical space.

*Read the following passage and answer questions 30 - 33*

The day my parents got divorced, I could breathe again. I was old enough to know that I had nothing to do with it. I counted myself lucky that I that got to skip the therapy sessions that would reassure me of what I already knew for an absurdly high rate.

My parents’ marriage was like clockwork. They were there for each other whenever the other person needed it. Even the littlest things, like when one of them needed a cup of tea the other would be ready without them asking. What I remember most is how they could sit in total silence and it would be fine. Clockwork.
The thing about clocks is that you only have a certain number of hours and they come up every day. My parents didn’t want raging arguments or passionate declarations of love that verged on being a faux relationship. No they were just an analogue clock who wanted to go digital. And so they separated.

As I said my wedding vows to Drew, I did not swear that this would be the last time that I walked down the aisle. I crossed my fingers and entered the world of marriage. Except it was different. We made our own cups of tea. If we weren’t talking or arguing, the television or radio would be going at max volume. There were times that I got so frustrated I could feel the words getting stuck in my throat and I just wanted to shriek to relieve some of the pressure. But the further I went into the jungle, the less I contemplated divorce. I couldn’t even bring it up as a joke. Drew was not the foundation of my life. Instead he was a permanent fixture that I could never bring down. Unlike a clock.

**QUESTION 30**

How does the narrator feel about her parents’ divorce?

a) Flippant  
b) Resigned  
c) Understanding  
d) Analytical

**QUESTION 31**

What is suggested by the description of the parents’ marriage as a clock?

a) Their marriage was rigid and unrelenting.  
b) Their marriage was constant and experienced no up and downs.  
c) Their marriage was predictable and unspontaneous.  
d) Their marriage was boring.

**QUESTION 32**

Why does the narrator differentiate between a foundation and permanent fixture?

a) She does not want to suggest that her husband is the only important thing in her life; just one of the many things she believes to be significant in her life.  
b) She does not think her life is totally based on his but he is a significant figure she could not imagine not being there.  
c) She is a feminist at heart and the furthest she is willing to describe her husband as is as a fixture and not something as significant as a foundation.  
d) She thought foundation was inappropriate because you can’t see it whereas you can appreciate a permanent fixture all the time.
QUESTION 33

What is the narrator’s final understanding of marriage?

a) What determines whether a marriage is successful can be surprising.
b) The institution of marriage is an out-dated one.
c) Marriages like the one her parents were part of will never succeed.
d) People shouldn’t consider divorce as a possible outcome at the outset of their marriage.

Select the alternative (A, B, C, D or E) that most logically and simply continues the series.

QUESTION 34

[Images of grids and patterns]

A B C D E

QUESTION 35

[Images of shapes]

A B C D E
QUESTION 36

A  B  C  D  E

QUESTION 37

is to

is to

A  B  C  D  E
Questions 38 - 42 are based on the following information:

An advertising executive must schedule the advertising during a particular television show. Seven different consecutive time slots are available for advertisements during a commercial break, and are numbered one through seven in the order that they will be aired. Seven different advertisements – B, C, D, F, H, J, and K – must be aired during the show. Only one advertisement can occupy each time slot. The assignment of the advertisements to the slots is subject to the following restrictions:

B and D must occupy consecutive time slots.

B must be aired during an earlier time slot than K.

D must be aired during a later time slot than H.

If H does not occupy the fourth time slot, then F must occupy the fourth time slot.

K and J cannot occupy consecutively numbered time slots.

Question 38

Which of the following could be a possible list of the advertisements in the order that they are aired?

(A) BDFHJCK
(B) CJBHKDF
(C) HBDFJCK
(D) HDBFKJC

Question 39

If advertisement B is assigned to the third time slot, then which of the following must be true?

(A) C is assigned to the sixth time slot.
(B) D is assigned to the first time slot.
(C) H is assigned to the fourth time slot.
(D) J is assigned to the fifth time slot.
Question 40

Which of the following could be true?

(A) B is assigned to the first time slot.
(B) D is assigned to the fifth time slot.
(C) H is assigned to the seventh time slot.
(D) J is assigned to the sixth time slot.

Questions 41 - 42 are based on the following information:

‘Burma’s Aung San Suu Kyi begins Europe Visit’ BBC Online News, 13 June 2012

Burmese pro-democracy leader Aung San Suu Kyi has arrived in Geneva, where she will address the United Nations at the start of a visit to Europe. She is due to make a speech at the UN's International Labour Organisation, which has led a long campaign against child and slave labour in Burma. Aung San Suu Kyi spent much of the past 24 years under house arrest in Burma. The visit, her first to Europe since 1988, is seen as another milestone for the country's political progress.

During a tour lasting over two weeks, she will visit the UK, Switzerland, Ireland, France and Norway, where she will accept her 1991 Nobel Peace Prize. Correspondents say Aung San Suu Kyi is addressing the ILO in recognition of its longstanding focus on the poor human rights record of former Burma's military rulers. It is her second recent overseas trip, after visiting Thailand in May.

She told reporters before she left Burma that she expects the trip to Europe to be eye-opening. "Each country will be different. I will know how backward [Burma] is when I reach the other countries," she said. She also added that she "would like to do my best for the interests of the people".

Ms Suu Kyi has spent much of the past two decades under house arrest as a political prisoner. But as part of Burma's recent reform process, she was freed in late 2010 and won a seat in parliament in by-elections in April this year.

Her decision to travel is seen as a sign of confidence in the government of President Thein Sein, who has pursued a course of reform since coming to power last year, in Burma's first elections in 20 years. Aung San Suu Kyi is the daughter of Burmese independence leader
Aung San, who was assassinated in 1947.

She became the leader of Burma's pro-democracy movement when, after living abroad for many years, she returned to Burma in 1988, initially to look after her sick mother. After that, she did not leave the country until recently, fearing that the country's then military rulers would not allow her to return to Burma.

**Question 41**

According to the article this was Aung San Suu Kyi’s first European visit in many years because:

- a) She has not been permitted to leave her house by the junta.
- b) She may not have been able to return to Burma if she travelled earlier.
- c) She was not permitted a visa earlier by her country’s military rulers.
- d) She was waiting for an invitation to speak at the UN.

**Question 42**

According to the passage Burma could be described as:

- a) A democratic country.
- b) A country undergoing transition to democracy.
- c) A military dictatorship.
- d) A constitutional monarchy.

*Read the following passage and answer questions 43 - 45.*

He sat in the train, with an empty seat beside him. He liked sitting on the window seat because it gave him a complete view of the scenery outside. As he stares out the window, everything hurtles past him and his eyes cannot focus on any single object. Not blinking once, he can feel pinpoints of pain behind his eyes. Eventually he slowly closes his eyes but the reprieve doesn’t last for long. The pain was the only thing stopping him from remembering.

His eyes are fast to notice things. He sees a mother’s hand grasping her daughter’s, as she tries to pull away. A man leaning in unnecessarily close to whisper something into a lady’s ear. A young woman stroking her brooch with a small smile like she had a secret. A much older man in a crumpled suit, tapping his foot incessantly and carrying a bouquet of roses.

He never wondered if anyone looked at him with the same discerning attention. He never did anything worth noticing.
QUESTION 43

What is the man really noticing as he observes other people?

a) The idiosyncrasies of different people’s behaviour.
b) Their interactions with other people.
c) Indications of their relationships with other people.
d) The meaning behind their actions.

QUESTION 44

What is suggested by the final lines?

a) The man is resentful about being lonely.
b) The man is isolated.
c) The man is unable to form relationships with people.
d) The man does not reveal much of his emotions.

QUESTION 45

What is implied by the man “leaning in unnecessarily close” to the woman?

a) The man is attracted to the woman.
b) The two are in a relationship.
c) The man and woman are attracted to each other.
d) There is a lot of noise on the train.

QUESTION 46

![Diagram of clocks with arrows indicating time]

A   B   C   D   E

?
QUESTION 47

Which is the odd one out?

A   B   C   D   E

Question 48 – 50

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

Question 48

A   B   C   D   E
Question 49

A B C D E

Question 50

A B C D E
Questions 51 - 53 are based on the following scenario:

A school teacher must schedule seven sessions, which are abbreviated M, N, O, P, S, T, and U, during a day. Seven different consecutive time periods are available for the sessions, and are numbered one through seven in the order that they occur. Only one session can be scheduled for each period. The assignment of the sessions to the periods is subject to the following restrictions: M and O must occupy consecutive periods. M must be scheduled for an earlier period than U. O must be scheduled for a later period than S. If S does not occupy the fourth period, then P must occupy the fourth period. U and T cannot occupy consecutively numbered periods.

Question 51

Which of the following could be a possible list of the sessions in the order that they are scheduled during the day?

   a) MOPSTNU
   b) NTMSOUP
   c) SMOPTNU
   d) SOMPUTN

Question 52

If session M is assigned to the third period, then which of the following must be true?

   a) O is assigned to the first period.
   b) S is assigned to the fourth period.
   c) N is assigned to the sixth period.
   d) T is assigned to the fifth period.

Question 53

Which of the following could be true?

   a) O is assigned to the fifth period.
   b) M is assigned to the first period.
   c) S is assigned to the seventh period.
   d) T is assigned to the sixth period.
Japan's failing appetite for whale meat left three-quarters of meat from whales caught in the north-west Pacific last summer unsold, according to a report.

Junko Sakuma, a freelance journalist, said the body responsible for selling meat from Japan's controversial "scientific" whaling programme had failed to sell 908 tonnes of the 1,211-tonne catch, despite holding 13 public auctions since last October. The report, published on the website of the Tokyo-based Dolphin and Whale Action Network, said the Institute of Cetacean Research, a quasi-governmental body that oversees the hunts, had hoped to use sales from the meat to cover the costs of the whaling fleet's expeditions.

The failure of the auctions to pique consumer interest in meat from minke, Bryde's and sei whales has forced the institute to revert to private sales through Kyodo Senpaku, the for-profit firm that collects, processes and sells the meat on behalf of the institute. Sakuma said the oversupply of whale meat, despite pockets of demand for the highest quality produce, had made Japan's lethal research programme unsustainable.

The Institute of Cetacean Research blamed low demand on the complicated auction procedure and reluctance among food suppliers to attract criticism from anti-whaling groups such as Sea Shepherd. "We could not achieve the results we had anticipated," an institute official told Kyodo.

**Question 54**

According to the passage demand for whale meat appears to have:

- a) Been much lower than expected by the whaling companies..
- b) Declined rapidly as compared to recent years.
- c) Been exceed by the unusually large supply of scientific research whale meat.
- d) All of the above.

**Question 55**

According to the passage the whale meat was originally intended:

- a) To be sold for profit
- b) To be sold to cover the costs of scientific whaling expeditions.
- c) To meet the great demand in Japan for whale-based cuisine.
- d) To revive the centuries-old culture of whale eating in Japan.
**Question 56**

The information presented suggests that efforts to raise awareness about whaling by organisations like Sea Shepherd have been:

a) Highly successful in reducing demand for whale meat.
b) Decisive in reducing the popularity of whale meat in Japanese restaurants.
c) Unnecessary because there was little domestic demand for whale meat in Japan in the first place.
d) Successful in making companies reluctant to be involved in whale meat industry.

Read the following passage and answer questions 57-61. Ryan and his wife, Autumn have just come home from an appointment with an oncologist (cancer specialist).

I just fell back into my couch. The groove that I had made for myself still felt the same as it did yesterday. Funny how all the little things stay the same, when something overturns everything you thought you knew. Something so familiar felt wrong now.

During the car ride home, Autumn and I had been totally silent. Usually we had the radio blasting and we would be laughing at each other as we sang along a little too raucously. Or one of us would complain about work, while the other person nodded rigorously in agreement.

“It’s ok Ryan. We’ll get through it.”

Autumn sat down next to me and squeezed my hand. As she smiled at me reassuringly, I turned away. Shoving her hand away, I stood up and moved to the other side of the room.

“No, we aren’t going to get past this. I’m going to have get through this. Me, alone.”

“I just meant that I’ll be here to support you. I know you must be feeling-”

“Stop! You can’t know what I’m feeling. Do you have cancer?”

“Ryan, please-”

“Have you ever had cancer?”

“No but-”

“But what?”

“But I’m your wife.”

“And that doesn’t count for anything when it comes to something like this.”

The words darted out my mouth, and they stung badly. Her eyes flashed and I thought she was going to throw something at me. I hoped it would hit me. Then, even worse, she just
deflated. Without a word, she just walked out of the house. I punched one of the pillows. Autumn wasn’t one of the little things but I had just treated her like she was one.

**QUESTION 57**

How has the relationship between Ryan and Autumn changed following his diagnosis?

a) It is too early to tell if their relationship has changed.

b) It went from loving to distant.

c) Their relationship has become more strained and argumentative.

d) Their relationship has become stronger.

**QUESTION 58**

What fuelled Ryan’s response?

a) Autumn’s persistent questioning.

b) Autumn’s refusal to understand his point of view.

c) His inability to handle and accept his diagnosis.

d) His feelings of frustration and disbelief regarding his diagnosis.

**QUESTION 59**

What might Autumn have felt after Ryan saying being his wife “doesn’t count for anything”?

a) Shocked and disbelieving.

b) Angry and hurt.

c) Upset and disillusioned.

d) Chagrined and disappointed.

**QUESTION 60**

What did Ryan mean when he said that he treated Autumn like one of the “little things”?

a) He acted resentfully towards her.

b) He dismissed her concerns and acted rudely.

c) He devalued her.

d) He treated her like she was a child.
QUESTION 61

What is Ryan likely to do next?

a) Run after Autumn so that he can apologise and explain his behaviour.
b) Sit in the room and be frustrated with himself.
c) Let Autumn come back and then apologise and explain his behaviour.
d) Act as if nothing has happened.

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

QUESTION 62
Questions 66 - 67 are based on the following article:

‘Pollutant turns fly-traps veggie’, BBC Online, 14 June 2011

Predator plants may cut back on flies if they can access key nutrients elsewhere, according to research.

Scientists studying carnivorous sundew plants in Swedish bogs found that nitrogen deposition from rain reduced how many insects the plants trapped. Pollution from transport and industry causes nitrogen-rich rain, meaning more reaches the ground in some areas. "If there's plenty of nitrogen available to their roots, they don't eat as much" says Dr Jonathan Millett.

Dr Millett from Loughborough University led the study, which was funded by the National Environment Research council (NERC) and is being published in the New Phytologist journal. The findings are based on tests on the round-leaved sundew plant, drosera rotundifolia. By measuring the amount of nitrogen of insect origin and comparing it to the amount taken up by the plant's roots, scientists could examine the proportions of each taken by plants in different locations.

They found that plants living in lightly polluted areas got 57% of their nitrogen from their prey. In more heavily polluted areas that figure dropped to between 20% and 30%.
But the species as a whole is not thought to be benefitting from this alternative source of nutrition. In fact, the discovery could prove to be bad news for the sundew in the longer term. "Basically, it's like adding more fertiliser," said Dr Millett.

"For an individual sundew it looks like its better. They're bigger and they'll probably be fitter and do better, but the problem is that they have to divert resources into being carnivorous." Carnivorous plants actually benefit from nutrient-poor environments, because they have less competition from other plants.

Their animal-digesting abilities seem to have evolved as a way to survive in these habitats, and the plants need a great deal of energy to "run" the complicated traps they use to capture and digest their prey.

If other plants move in as nitrogen levels in the soil increase, these predatory mechanisms could prove more of a hindrance than a help. "When there's more nitrogen available... the non-carnivorous plants can 'out-compete' them," says Millett. "You might get some local extinction at very high levels of nitrogen deposition."

**Question 66**

Based on this extract it appears that Nitrogen

- a) Is a nutrient that carnivorous plants seek in their prey.
- b) Is available in the soil in sufficient quantities already.
- c) Is a by-product of plant photosynthesis.
- d) Is the subject of this British research.

**Question 67**

The article suggests that carnivorous plants may only benefit from increased soil Nitrogen in the immediate term because:

- a) Nitrogen was a pollutant.
- b) They still need to run their high-energy carnivorous system.
- c) This reduces their competitive advantage over other non-carnivorous plants.
- d) All of the above.
For each of the following items, select the alternative (A, B, C, D or E) that most logically and simply completes the picture.

Question 68

Question 69
Question 70
Read the following dialogue and answer questions 71-74. Tom is Ellie’s boss at a corporate company.

Tom: Hi Ellie. Can I get you anything?
Ellie: Oh no, it’s alright. Already had my morning coffee. How are the kids going?
Tom: They’re going great. One’s already in university.
Ellie: I remember them going into high school. Doesn’t that seem so long ago now.
Tom: Hmmm yes it does. Ellie, I’ve called you in today about something serious.
Ellie: Of course. What is it? Are there some discrepancies with the numbers I gave you last week?
Tom: It’s not that. As you might have already heard, the company is going to be down-sized.
Ellie: Really? So the rumours are true?
Tom: As a consequence, I’m afraid we’re going to have to let you go.
Ellie: What? No! This can’t be happening. How am I going to look after the kids?
Tom: Ellie are you ok?
Ellie: I never imagined this would happen to me. How could you do this to me?
Tom: Ellie, it wasn’t my decision to make. I couldn’t give you special preference.
Ellie: How dare you, Tom? I have worked for this company long before you came here. I have worked here for years and I haven’t ever received one complaint.

**QUESTION 71**

What best describes Tom and Ellie’s relationship?

a) Friendly and unprofessional  
b) Familiar but professional  
c) Strictly an employer-employee relationship  
d) Unique
**QUESTION 72**

How does Ellie immediately respond to being fired?

a) Anxious  
b) Angry  
c) Expectant  
d) Resigned

**QUESTION 73**

Why is Ellie so upset in the final line?

a) She has just fully realised the consequences of getting fired.  
b) She is indignant that Tom thought she expected preferential treatment.  
c) She is upset by the injustice of the company’s actions.  
d) She is indignant that Tom thought she needed preferential treatment.

**QUESTION 74**

Ellie can be a _________ person.

a) Self-respecting  
b) Zealous  
c) Uptight  
d) Arrogant

**Questions 75 - 77 are based on the following information:**

The past 10 000 years have witnessed rapid population growth, from several million people to a current population of approximately 6.6 billion people. One factor that supported such population growth was the industrial revolution.

The industrial revolution starting in England saw unprecedented population growth supported by economic growth and prosperity. Population growth was as a result of both an increasing birth rate and a falling death rate.

The industrial revolution increased employment opportunities so couples relatively free of the fear of unemployment could rear larger families. There were numerous reasons for the falling death rate including significant advances in medicine, and limiting the toll of diseases such as scurvy and smallpox, which had in the past negatively impacted on population.
numbers. In addition, Louis Pasteur discovered the causative relationship between microscopic microbes and disease. This led to improved sanitation and food preservation methods and the resultant increased life expectancy.

The automation of the textile industry made the warm underwear, including socks and vests, more economical, so even the poorest classes could protect themselves against the ills of winter.

The factors outlined above saw the population of Europe increase from 180 million people in 1800 to 460 million people in 1914.

**Question 75**

According to the passage large families were possible by the industrial revolution because:

a) Textile manufacturing made it affordable to clothe many children.
b) Employment opportunities meant a more guaranteed income.
c) Modern medicine reduced child mortality.
d) All of the above.

**Question 76**

According to the information provided population increased between 1800 and 1914 by:

a) Less than 100%
b) More than 150%
c) More than 200%
d) More than 250%

**Question 77**

According to the part of the passage referring to Louis Pasteur we can conclude that:

a) Microbes are implicated in certain diseases.
b) Microbes cause all diseases.
c) Microbes once caused diseases but were eliminated by modern medicine.
d) Ignorance of microbes was the main reason for poor sanitation.
Questions 78 - 80 are based on the following newspaper extract:

‘Icann criticised over ’commercial land grab’ of internet’, Guardian, 14 June 2012

More than 1,000 new internet "top level domains" – such as .app, .kids, .love, .pizza and also .amazon and .google – could come online beginning early next year, with the potential to radically change the face of the web.

But the move by Icann, the US-appointed company which decides what new domains can be added to the web, has been criticised by some as allowing a commercial land grab of the internet.

Documents released by Icann on Wednesday show that Amazon and Google have made dozens of applications to control hundreds of domains – including .shop, .book, .love, and .map and .mba.

The most applied-for domain is .app, which 13 organisations have staked a claim to own, including both Amazon and Google. Only one entity can own a top-level domain.

The next is .home and .inc, with 11 applications, .art with 10, and then .book, .blog, .llc, and .shop with nine each.

Those put in charge of allotting such domains will have complete power over whether a company or individual can apply for a website or domain name within them – so that if Amazon was to control .book, it could deny a rival such as Waterstones the chance to create waterstones.book.

The new top-level domains, or TLDs, will start to come online in the first quarter of 2013, said Rod Beckstrom, the chief executive of Icann, who unveiled the list of 1,930 applications for 1,700 different new TLDs at a press conference in London.

Question 78

According to the passage a top level domain is:

a) The final suffix of an internet web address.
b) The first part of a web address.
c) The only part of the web address that a company must register.
d) Something that can be shared by a number of companies or organizations.
Question 79

The purpose of the passage is to inform the readers of:

a) A disagreement between corporations over domain name registration.
b) A clearly positive evolution of the internet.
c) The possibility for readers to register new top level domain names.
d) A new development in the arena of internet regulation.

Question 80

According to the passage ICANN

a) Is in control of the global internet domain name system.
b) Is based in the US.
c) Is being criticized for its decision which seems to be primarily commercial.
d) All of the above.

Question 81

[Diagrams and options A, B, C, D, E are shown]
Question 82

[Hexagon pattern with smiley faces and a question mark]

A  B  C  D  E

Question 83

[Square pattern with numbers and a question mark]

7  8  9  10  11

A  B  C  D  E
Read the following passage and answer questions 84-87.

Marilyn liked walking down the sand that was still wet from the waves coming in. Her footprints could leave an impression for at least a little while until the waves came rushing in and then they would disappear. Gone.

She was wearing a black dress that came down to her knees and was holding her heels in her hand. The funeral had been nearby. After hours of handing out canapés afterwards to sympathetic eyes and greedy hands she couldn’t stand it anymore. All she could think was more had to have changed. This couldn’t be it.

At first all she could hear were the waves. Soon she could see a young girl wearing a sky blue dress excitedly skipping. Her mother was trailing behind her collecting shells. When the young girl came running back, her mother held her hands out to show her. The girl put one of the shells to her ear but then she huffed.

“Why are you getting the shells Mum? They’re so dirty and you can’t hear anything!”

“I’m going to clean them and make you a pretty bracelet. You’ll see- this bracelet will be beautiful.”

“Ok but let’s play now.”

And then they ran further away until Marilyn couldn’t see them. She continued to walk down the beach, pressing her feet into the sand. She softly stroked a shell bracelet, dangling loosely from her wrist.

**QUESTION 84**

What is the significance of the footprints?

a) They represent the impermanence of things.
b) They reflect how people only have a limited amount of time to influence others.
c) They illustrate how the effect a person can have on another is fleeting.
d) The footprints are just an observation made by Marilyn.

**QUESTION 85**

Why did Marilyn get frustrated by the funeral?

a) She thought the guests were coming just for the food.
b) She thought it was diminishing her mother’s death.
c) She didn’t think that everyone was upset enough.

d) She thought she was the only one who truly felt the loss of her mother.

QUESTION 86

What is Marilyn feeling after her mother’s death?

a) Appreciation for the life her mother lived.
b) Sorrowful acceptance.
c) Devastation at her loss.
d) Sorrowful denial.

QUESTION 87

Why might Marilyn have chosen to go to the beach?

a) It was the closest place that was away from the funeral venue.
b) She was getting overly frustrated and knew she could cool down at the beach.
c) The beach was the only place she could clearly remember her mother.
d) She wanted to seek comfort with the memories of her mother.

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.

QUESTION 88

A B C D E
QUESTION 89

A  B  C  D  E

QUESTION 90

A  B  C  D  E

QUESTION 91

A  B  C  D  E
Questions 92 - 93 are based on the following information:

'Are birds of prey being unfairly persecuted?' BBC Online, 1 June 2012

Government proposals to trap and displace buzzards to protect captive-reared pheasants have been dropped after a public outcry. So can birds of prey live alongside shooting interests? Diving, looping and barrel-rolling, the sky dance of a male hen harrier is one of the most spectacular sights in the sky. But if you want to see it in England, you should go soon. The species is vanishing.

Radio-tracked hen harriers have been flying into mysterious black holes in the north of England, disappearing in areas principally managed for shooting, according to a Natural England report. The nation could be down to one nesting pair of hen harriers this year, a result of illegal killings committed with the intention of protecting grouse, according to the Royal Society for the Protection of Birds (RSPB).

"If you create an area where there's lots of prey available... you're going to get predators homing in on that if they are able to," says John Calladine from the British Trust for Ornithology (BTO). But do harriers, buzzards and other raptors really have a devastating effect on local game bird populations?

Many studies suggest not, but experts say that some on both sides of the argument are guilty of oversimplification. Different raptors will take different prey from different places, says Mr Calladine. And some species are better understood than others.

"Merlin will be too small to take a healthy adult pheasant, though a larger peregrine would have that capability... [and a] hen harrier will be unlikely to forage within a dense woodland, but is a capable hunter on open moorland."

**Question 92**

The article suggests that birds of pretty number are declining because:

- a) They are being hunted as game themselves.
- b) They are being shot to protect pheasants raised for hunting.
- c) Urban expansion is consuming their natural habitat.
- d) Their hunting habits have been poorly understood.
Question 93

The findings suggest that birds of prey in Britain would be better protected if:

a) Individual raptor species’ hunting habits were better understood.
b) People chose to end the sport of pheasant shooting.
c) The innate value and beauty of birds of prey was popularly appreciated.
d) Protected habitat zones where hunting was banded were increased.

Questions 94 - 96 are based on the following information:

Modern technology has the potential to alter the composition of the current population with respect to age, polymorphism and genotype. Technology, including efficient and affordable air travel, medical advances and genetic engineering, has had and will continue to have a profound impact on the human population.

Historically, geographical barriers have limited interbreeding between cultural groups and promoted the formation of human polymorphism. With improved access to air travel and internet communication, humans have become more mobile and as a result polymorphism has become less common. Medical advances such as vaccinations and gene therapy will support an increased life expectancy and as a result an aging population.

Question 94

According to the passage modern technology has had a significant impact on:

a) Human population numbers.
b) Human cultural mixing and breeding between cultural groups.
c) Immunity to infectious diseases through vaccination.
d) The amount of pollution in the air as a result of air travel.

Question 95

The main point of the passage is:

a) The determining role of technology in human society
b) The important contribution of technology to the increasing globalization
c) The ability of science to increase the population.
d) The ability of technology to alter the genetic and cultural constituency of humanity.
Mitochondrial DNA is an essential tool in tracing the genetic evolution of humans. Mitochondrial DNA, unlike nuclear DNA, evolves rapidly with a mutation rate up to ten times higher than nuclear DNA. Furthermore, mitochondrial DNA is thought to be inherited directly via the female line, unaltered by the process of recombination during meiosis. As such analysis of mitochondrial DNA has been used to study human evolution. By tracking the sum of differences in samples of mitochondrial DNA from different groups of humans, scientists can estimate the time of divergence of specific species from a common ancestor.

According to the passage we can conclude that mitochondrial DNA is

a) The primary form of DNA.
b) A potentially useful information source regarding human evolution.
c) Less mutated than nuclear DNA.
d) A direct result of the process of meiosis.

Read the following passage about Angus who has just had a heart attack and been admitted to hospital. Jenny and Pearl are his wife and daughter respectively. Then answer questions 97-98.

It's been two days since I was admitted into hospital. I was so dizzy and I just could barely focus with the pain shooting up my left arm. Sweat was dripping off my forehead as I grasped my chair for support. I could hear Pearl shrieking and Jenny frantically calling for an ambulance.

Pearl and Jenny were sitting next to me. Usually Jenny took pride in looking immaculate but I could see her hair looking out of place and her clothes were uncharacteristically dishevelled. She had been making calls non-stop for the last two days to family, friends, work to tell them what happened and then calling them again to give them updates. She had grasped my hand tightly but I could still feel it shaking. Pearl’s eyes were red and my heart clenched as I saw her trying to hold back from sniffling.

Having fried bacon and eggs for breakfast, watching TV in all my spare time, treating myself throughout the day had cost a lot more than just money. They shouldn’t have to see me like this, in a hospital bed at 45. I looked at Jenny and Pearl, and I realised it was my fault that they were sitting here in this hospital today.
QUESTION 97

What does seeing Jenny and Pearl make Angus feel?

a) Mortified and dismayed.
b) Demeaned and overwhelmed.
c) Penitent and chastened.
d) Meek and degraded.

QUESTION 98

Why does Angus feel it is his fault that Jenny and Pearl are in this hospital?

a) He was the one who had the heart attack.
b) It was his life choices that brought them here.
c) As his wife and daughter they were obliged to come to the hospital.
d) He had guilt tripped them into visiting.

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.

QUESTION 99

A

\[ \begin{array}{ccc}
3 & 20 & 6 \\
\end{array} \]

B

\[ \begin{array}{ccc}
17 & 20 & 4 \\
\end{array} \]

C

\[ \begin{array}{ccc}
8 & 9 & 6 \\
\end{array} \]

D

\[ \begin{array}{ccc}
10 & 11 & 10 \\
\end{array} \]

E

\[ \begin{array}{ccc}
1 & 17 & 19 \\
\end{array} \]
QUESTION 100

A
B
C
D
E

QUESTION 101

A
B
C
D
E

QUESTION 102

A
B
C
D
E

QUESTION 103

‘Apple Ditches Google Maps’, BBC Online, 11 June 2012

The operating system, which runs on its iPhone, iPad and iPod Touch devices, will no longer include Google Maps software. Apple will instead run its own mapping app, which has a high-quality 3D mode, on the platform.
Google announced its own 3D mapping software last week on its competing mobile platform, Android. Both companies have used fleets of planes to capture the imagery, drawing concerns from some privacy campaigners. Apple's updated iOS software is being released in beta on Tuesday, and will be available for general consumers by the autumn, chief executive Tim Cook said. It will be a free update for owners of either an iPhone 4S, iPhone 4 or iPhone 3GS - as well as users of the latest iPad, the iPad 2 and fourth generation iPod touch.

Additional features include "eyes free", a feature on which Apple said it had worked with car manufacturers to integrate a "Siri button" to activate the iPhone's voice-operated assistant. For the first time on Apple's devices, video calls will be able to be made over a cellular connection, rather than relying on wi-fi.

The switch to its own mapping platform will provide Apple with even more opportunities to monetise its users, said Carolina Milanesi, an analyst for Gartner, who attended the event in San Francisco.

The article suggest that the main motivation for Apple switching to its own mapping platform is:

a) Financial.  
b) To offer 3D capability.  
c) To integrate its voice operated ‘Siri’ system with maps.  
d) To revolutionize its iOS operating system.

*Questions 104 - 106 are based on the following scenario:*

In a single evening, exactly seven actors, Angelina, Brad, Depp, Ferrell, Hayek, Lohan, and Malkovich, arrive at a movie premiere. No actor arrives at the same time as any other actor. Before they arrive, each actor is nominated for exactly one of two different awards, gold or silver. The following conditions apply:

- No two actors nominated for gold awards arrive consecutively.
- Brad arrives before both Angelina and Lohan.
- Depp, who is nominated for a gold award, arrives third.
- Angelina is nominated for a gold award.
- Brad is not nominated for a gold award only if Lohan is not nominated for a silver award.
- Lohan does not arrive seventh.

**Question 104**

Which one of the following could be a complete and accurate list of the actors’ arrivals and respective nominations, from first to last?

a) Brad (Gold), Hayek (Silver), Depp (Gold), Lohan (Silver), Angelina (Gold), Ferrell (Silver), and Malkovich (Silver)
b) Brad (Gold), Lohan (Silver), Angelina (Gold), Malkovich (Silver), Depp (Gold), Ferrell (Silver), and Hayek (Gold)
c) Angelina (Gold), Brad (Silver), Depp (Gold), Hayek (Silver), Malkovich (Silver), Lohan (Gold), and Ferrell (Silver)
d) D) Ferrell (Silver), Brad (Silver), Depp (Gold), Hayek (Silver), Angelina (Gold), Malkovich (Silver), and Lohan (Gold)

**Question 105**

What is the minimum number of actors that could arrive before Angelina?

a) 1  
b) 2  
c) 3  
d) 4

**Question 106**

If Brad arrives second, then which one of the following must be true?

a) Malkovich arrives neither immediately before nor immediately after Depp.  
b) Hayek arrives before Lohan.  
c) Angelina arrives seventh.  
d) The actor who arrives first is nominated for a gold award.
‘Fishing Practice Thrown Overboard by EU’, Guardian, 14 June 2012

The wasteful practice of throwing away healthy and edible fish at sea will be ended in Europe, for the first time in four decades, in a partial victory for environmental campaigners who have viewed a discards ban as the key step to preserving fish stocks. But – crucially – the date when such a ban will come into force is still in question, raising fears that it may be implemented too late to save some species.

More than 1m tonnes of healthy fish are annually thrown back dead into the sea by fishermen – due to EU rules, or in order to maximise their profits – and a ban on discarding fish such as mackerel and herring is likely from 2014. However for other very pressurised species such as cod, haddock, plaice and sole, the ban could be phased in from 2015, and not be fully in force until 2018. That, experts say, may be too late to be effective.

Mette Gjerskov, the fisheries minister for Denmark, the current holder of the revolving EU presidency, said: "Today the [EU] Council for the first time stated that a discard ban will be a reality. Maria Damanaki, the EU fisheries chief, said: "It was a compromise, but a step in the right direction, a step forward, [and] workable."

Although her proposals for comprehensive reform of the common fisheries policy – the biggest overhaul of the longstanding policy since it was formed – have not been implemented as Damanaki wanted, she vowed to fight on, saying the focus would switch to the European parliament, which will now discuss the council’s decisions and could try to strengthen the proposals.

Question 107

According to the passage certain fish species are being endangered by

a) Fish discarded by fishermen due to low demand
b) Fish discarding practices in response to EU regulations and commercial interests.
c) Rules originally designed to protect fish species.
d) Quotas on fishing catches mandated by UN treaties.
Question 108

The passage suggests that fish discarded at sea:

a) Are wasted because they are not eaten.
b) Are wasted because they are needlessly killed.
c) Are in contravention of the original EU treaty.
d) Are an important aspect of the overall despoiling of the world’s oceans.

Read the following passage and answer questions 109-113. Jude and Kyra have been dating for 3 years.

We were eating dinner and I smiled as Jude swapped his beetroot for my eggplant without asking. He knew he didn’t need to. But then I could feel my smile cracking. Would it be so bad if I didn’t know that he hated beetroot, he loved waking up early, that he couldn’t forgive easily? Would it be so bad?

“Kyra are you listening? You’re getting that look on your face when you’re thinking too much.” He was laughing but his forehead had creased. “What is it now?”

“It’s nothing.” Leaving that hanging, I kept on eating.

The furrows in his forehead just grew deeper but he continued after a while. “I was thinking of going to the Ballard with the crew. It should-”

“Really? Danny was telling me about it. He said it was great. I’ll ask him-”

Jude dropped his fork onto his plate and it made that awkward clattering sound that I hated. I knew why he’d done it but I didn’t want that conversation so I just laughed.

“You’re such a klutz. You know Danny managed to get in free even though it’s so exclusive because of all his connections and-”

“Kyra, stop.” He pushed his plate away and ran his hand through his hair. I saw a serious conversation coming, like a dark storm coming in every cliché movie when the girl was crying.

“Kyra, are you happy with me?”

“Of course I am.” I gripped my fork tightly and kept on eating. I didn’t want him to see my face right now. But I didn’t have anything to hide. I mean, it’s not lying if you don’t know what the truth is.

“I feel like you’re never excited anymore. You’re just bored. All the time. The only time you’re animated is when you’re talking about something Danny did.”
That made me put down my fork. The conversation had just gone a completely different direction but at least it was territory I thought I could get out of.

“What? You brought up the Ballard and I knew he’d been there.”

“Kyra, you’re going to have to make a decision soon.”

“You’re acting like a typical jealous guy. If Danny was a girl we wouldn’t be having this conversation. He’s just a friend. There’s no decision to make.” I expected Jude to stand offended and accuse me of thinking the worst of him. I expected it to end this.

“Yeah, maybe you’re right. We wouldn’t be having this conversation. That’s what’s worrying me. I can’t keep waiting for you to make up your mind.”

Blustering, I felt like he had become a mirror that was forcing me to look at myself. I hated it.

**QUESTION 109**

Which option best describes the relationship between Kyra and Jude?

- a) Not a very committed relationship.
- b) One that is suffering from a lack of communication.
- c) A relationship that doesn’t have a future.
- d) An emotionally satisfying relationship.

**QUESTION 110**

Why does Jude bring up Danny?

- a) He thinks that Kyra is having an affair.
- b) He thinks Kyra is prioritising Danny over the relationship.
- c) He thinks Danny is poisoning Kyra’s mind against him.
- d) He thinks that Kyra has feelings for Danny.

**QUESTION 111**

Why is Kyra questioning the state of their relationship?

- a) She thinks it has stagnated.
- b) She thinks they only know the superficial things about each other.
- c) She thinks that they aren’t compatible.
- d) She has feelings for Danny.
QUESTION 112

Was Kyra expecting Jude to bring up the issues he did?

a) No, she thought that he was satisfied with their relationship.

b) Yes, this is evident from the way she tried to avoid conversation.

c) No, she thought she was the only one worrying about the state of their relationship.

d) Yes, deep down she knew that Jude felt the same way she did.

QUESTION 113

Why does Kyra compare Jude to a mirror?

a) His questioning is forcing her to examine her emotions.

b) His insistence to decide is making her to consider who she likes out of Jude and Danny.

c) His conversation is making her question her actions.

d) His questioning has made her think about her treatment of him.

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.

QUESTION 114

[Five circular figures with dots.]

A B C D E

QUESTION 115

[Five hexagonal figures with shaded areas.]

A B C D E
QUESTION 116

Read the following passage and answer questions 117-118.

High school was a golden age for Angelina. She had her close friends but was still popular and on friendly terms with all her peers. She excelled when it came to grades and was highly involved in her school community. It was a matter of genetics. Her family’s name came up repeatedly throughout the school’s records and history books. Yet she was sure these couldn’t be the best years of her life. Her parents told her stories about their university days and she felt ready to move on.

Yet university quickly shattered the podium she had placed the future upon. Her first few weeks were spent by herself. As she went from lecture to tutorial to lecture, she couldn’t force the information to stay in her head. Opportunities to join events and groups passed without her even realising. She withdrew back into a shell she didn’t even realise she had.

Every time she went to talk to her parents or her old friends, her cheeks burned red and the words refused to leave the confines of her head.

QUESTION 117

How did university change Angelina?

a) It made her doubt herself.
b) It made her become more reserved.
c) It made her become disillusioned.
d) It made her more determined.

QUESTION 118

Why doesn’t Angelina talk to anyone about her situation?

a) She was ashamed of her failure.
b) She was embarrassed by it.
c) She didn’t know how to put it into words.
d) She wanted to wait for the problem to resolve itself.
Questions 119 – 120 are based on the following information:

Nitrogen cycle
Nitrogen is essential for the formation of amino acids in proteins. The nitrogen cycle is a model that explains how nitrogen is recycled.

About 78 per cent of the air is nitrogen. Because nitrogen is so unreactive, it cannot be used directly by plants to make protein. Only nitrates are useful to plants, so nitrogen must be converted to nitrates.

Nitrogen gas is converted to nitrate compounds by nitrogen-fixing bacteria in soil or root nodules. Lightning also converts nitrogen gas to nitrate compounds. The Haber process converts nitrogen gas into ammonia for use in artificial fertilizers. Ammonia is converted to nitrates by nitrifying bacteria in the soil.

Question 119
According to the passage we can conclude which of the following:

a) Plants use Nitrogen directly from the atmosphere.
b) Plants use Nitrates primarily created by electrical storms.
c) Plants make use of Nitrate compounds found in the soil.
d) Plants use the Haber process in addition to photosynthesis to survive.
Question 120

The visual information represents

e) A simplified version of the Nitrogen cycle.
f) A complete understanding of Nitrogen fixation.
g) A misleading picture of a complex scientific phenomenon.
h) One aspect of the Nitrogen cycle.

Questions 121 – 122 are based on the following information:

GM crops 'aid plant neighbours', BBC Online, 14 June.

GM crops that make their own insecticide also deliver benefits for their conventional plant neighbours, a study in China has concluded.

These strains seem to boost populations of natural pest-controlling predators, and this effect spills over to non-transgenic crops, the research found. Details of the work by a Chinese-French team appear in the journal Nature.

But one group critical of GM planting described the effect as a spillover "problem", not a "benefit". Scientists investigated a modified version of cotton grown in China that generates a bacterial insecticide. The strain has led to a reduction in the use of insecticide to control a major pest, the cotton bollworm.

After the GM cotton was introduced, researchers saw a marked increase in numbers of pest predators such as ladybirds, lacewings and spiders. At the same time, populations of crop-damaging aphids fell.

The predatory insects also controlled pests in neighbouring fields of non-GM maize, soybean and peanut crops, said the team led by Dr Kongming Wu from the Chinese Academy of Agricultural Sciences in Beijing.

Commenting on the study, Professor Guy Poppy from the University of Southampton, UK, said: "Global food security will require us to sustainably intensify agriculture. Opponents of GM have argued this can't be done through biotechnology, whereas this research challenges this view and demonstrates the wider benefits of using GM plants."
QUESTION 121

According to the passage which of the following is considered a pest in cotton growing:

a) Ladybirds  
b) Spiders  
c) Bollworm  
d) All of the above.

QUESTION 122

According to the reading the plants had a spillover effect because

a) The GM modified plants also had a a pest controlling effect on other types of insects  
b) The GM modified plants had a pest controlling effect on other GM modified plants  
c) The GM modified plants had a pest controlling effect on non-GM modified plants nearby  
d) The GM modified plants increased the populations of bollworm in neighbouring fields.

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.

QUESTION 123
Coming out wasn’t the hardest thing I’ve ever had to do in my life. I mean, I’ve had a root canal. Has no other gay person had one? Maybe homosexuals just have perfect oral hygiene. Coming out might have been the hardest thing my parents had to hear. I mean they aren’t too religious so I knew I was safe from them trying to stone me but it’s not like they’re going to run onto the streets and tell the neighbours. It was pretty funny, the night I told them I overheard them in the kitchen. Mum was asking Dad is they should take me to see our general practitioner. They meant well.

Telling my friends was a different experience. It didn’t make me lose friends but it made me realise who really stood for what they said they stood for. I came from a group of friends who were all pro-gay rights and supported gay marriage. Nonetheless, as I expected but hoped wouldn’t happen, after slapping me on the back and saying “good on you mate”, a lot of my male friends withdrew. It’s not like they cringed away from me or shuddered every time they walked into the room. No, it was a lot more subtle than that. Waves when before they would give me a hand shake. Less joking of the inappropriate class. That kind of stuff.

But I’m still me. I love beer and rugby. I don’t have an innate understanding of what shoes match my clothes. I don’t squeal every time I see anything related to Sex and the City. However, one thing about me changed after I came out. I was no longer a man with a secret. No, I’m a bloke and I’m gay.

**QUESTION 126**

What sort of person is Rhys?

a) Determined  
b) Candid  
c) Humorous  
d) Stoic

**QUESTION 127**

What was the point of the final paragraph?

a) Rhys wanted to reveal the stupidity of the gay stereotype.  
b) Rhys wanted to make a final dramatic statement.  
c) Rhys wanted to show how he didn’t feel he fit into any group.  
d) Rhys wanted to illustrate that he wasn’t the gay stereotype.
QUESTION 128

How did Rhys feel about his parents considering taking him to a general practitioner?

a) He resented that they felt he needed medical attention.
b) He was not upset by it.
c) He thought it was typical from his parents.
d) He understood why they felt it was necessary.

Questions 129 – 131 are based on the following scenario:

A panel of music historians ranked eight contemporary songwriters – Jackson, King, Lennon, Mitchell, Nicks, Prince, Simon, and Wonder – according to their relative impact on the evolution of the popular song form. No other songwriters were considered, and there were no ties in the final ranking. The ranking of the songwriters met the following conditions:

- Nicks was ranked higher than Lennon but lower than Simon.
- Prince was ranked lower than both Mitchell and Jackson.
- Wonder was ranked lower than Nicks.
- Jackson was ranked higher than Simon.
- Nicks was ranked higher than King.

Question 129

Which one of the following could represent the ranking of songwriters, listed from highest to lowest?

a) Jackson, Simon, King, Mitchell, Prince, Nicks, Lennon, Wonder
b) Mitchell, Jackson, Prince, Simon, Lennon, Wonder, Nicks, King
c) Jackson, Simon, Prince, Nicks, Mitchell, Wonder, Lennon, King
d) Mitchell, Simon, Jackson, Prince, Nicks, Lennon, Wonder, King

Question 130

If Simon was ranked fourth, which one of the following must be true?

a) Prince was ranked third.
b) Jackson was ranked first.
c) Wonder was ranked sixth.
d) Nicks was ranked sixth.
Questions 131 – 133 are based on the following article:

‘Oldest confirmed cave art is a single red dot’, New Scientist, 14 June 2012

As cave art goes, it doesn't look like much: a single red dot, hidden among a scatter of handprints and drawings of animals on the wall of El Castillo cave in northern Spain.

But this red dot is at least 40,800 years old, making it the oldest known piece of cave art in Europe. At that time modern humans had only just migrated out of Africa, raising a tantalising possibility: that the dot was drawn by a Neanderthal. If that's the case, our extinct cousins may have had the rudiments of written language.

While cave art is common throughout western Europe, the oldest dated examples are those in Chauvet cave in France, which have controversially been dated to between 35,000 and 30,000 years ago.

But many other pieces of cave art have never been dated. Standard radiocarbon dating only works when paintings were made using organic material like charcoal. Anything drawn with minerals like ochre, or just carved into the wall, can not be carbon dated.

Now, Alistair Pike of the University of Bristol, UK, and colleagues have come up with a partial solution that will put a minimum age on some previously un-datatable paintings.

As water seeps through rock and dribbles over the cave surface, it leaves behind a thin layer of calcite. This contains radioactive uranium, which slowly decays into thorium at a known rate.

So, by measuring how much uranium has decayed into thorium, Pike figured he could determine the age of the calcite layer. If the calcite overlays a painting, it will provide a minimum age for that art.

In El Castillo, the red dot lay beneath the oldest dated calcite layer. Others came close: a red hand shape on the same wall was at least 37,300 years old and a symbol that looks like the number "1" in the nearby Altamira cave was at least 35,600 years old.

Question 131

According to the information presented carbon dating was not used in this case because:

a) The painting was not created using organic materials.
b) The painting was carved into the walls.
c) Of the presence of radioactive materials.
d) It has already been attempted.

**Question 132**

In the article above the red dot is presented as:

a) Potentially the earliest artwork ever created by humans.
b) The oldest cave painting yet dated.
c) Clear evidence of the writing abilities of Neanderthals.
d) Less likely to be human created than the near-by hand paintings.

**Question 133**

According to the research the radioactive dating of the artwork was possible because:

a) The radioactive layer overlay the cave paintings.
b) The uranium decayed at a known rate.
c) The thorium could be detected and measured.
d) All of the above.

**Question 134**

![Diagram of shapes]

**THE END**

Matrix UMAT Preparation Course

WHAT IS UMAT?
UMAT is developed by the Australian Council for Educational Research (ACER) on behalf of the UMAT Consortium for selection of students into Medicine, Dentistry, Optometry or health science degree programs at an undergraduate level.

COURSE OBJECTIVE
The UMAT is a skills based exam designed to assess critical thinking, problem solving, understanding people and abstract non-verbal reasoning. As success in this exam does not depend on curriculum knowledge, the best way to prepare is to have extensive, guided exposure to the UMAT’s unique exam style.

Our comprehensive resources and high quality personal teaching approach will provide you with the skills necessary to excel in these examinations.

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(b) 1 Full-length mock UMAT exam session marked and returned with individual feedback
(c) Comprehensive Theory Guide Books
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<td>Ability to comprehend information, draw logical conclusions and reach a solution</td>
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<td>Lesson 2: Understanding</td>
<td>Ability to identify, understand, and infer the thoughts and behaviour of people</td>
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<td>Lesson 3: Non-verbal</td>
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<td>Lesson 4: Mock Exam</td>
<td>Gain exposure to exam conditions and effectively pace and accurately answer the</td>
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Monash University
Medicine, Pharmacy, Pharmacy & Commerce, Physiotherapy
La Trobe University
Health Sciences (Dentistry), Oral Health Science

Western Australia
The University of Western Australia
Medicine, Dental Medicine

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