OET 2.0 PRACTICE TESTS
READING
Practice Test 1.
Occupational English Test

Reading Test

Part A

TIME: 15 minutes

- Look at the four texts, A – D, on the following pages.
- For each question, 1 – 20, look through the texts, A – D, to find the relevant information.
- Write your answers on the spaces provided in the Question Paper.
- Answer all the questions within the 15-minute time limit.
- Your answers should be correctly spelt.
The use of feeding tubes in paediatrics: Texts

Text A

Paediatric nasogastric tube use

Nasogastric is the most common route for enteral feeding. It is particularly useful in the short term, and when it is necessary to avoid a surgical procedure to insert a gastrostomy device. However, in the long term, gastrostomy feeding may be more suitable.

Issues associated with paediatric nasogastric tube feeding include:
- The procedure for inserting the tube is traumatic for the majority of children.
- The tube is very noticeable.
- Patients are likely to pull out the tube making regular re-insertion necessary.
- Aspiration, if the tube is incorrectly placed.
- Increased risk of gastro-esophageal reflux with prolonged use.
- Damage to the skin on the face.

Text B

Inserting the nasogastric tube

All tubes must be radio opaque throughout their length and have externally visible markings.

1. Wide bore:
   - for short-term use only.
   - should be changed every seven days.
   - range of sizes for paediatric use is 6 Fr to 10 Fr.
2. Fine bore:
   - for long-term use.
   - should be changed every 30 days.

In general, tube sizes of 6Fr are used for standard feeds, and 7-10 Fr for higher density and fibre feeds. Tubes come in a range of lengths, usually 55cm, 75cm or 85cm.

Wash and dry hands thoroughly. Place all the equipment needed on a clean tray.
- Find the most appropriate position for the child, depending on age and/or ability to co-operate. Older children may be able to sit upright with head support. Younger children may sit on a parent’s lap. Infants may be wrapped in a sheet or blanket.
- Check the tube is intact then stretch it to remove any shape retained from being packaged.
- Measure from the tip of the nose to the bottom of the ear lobe, then from the ear lobe to xiphisternum. The length of tube can be marked with indelible pen or a note taken of the measurement marks on the tube (for neonates: measure from the nose to ear and then to the halfway point between xiphisternum and umbilicus).
- Lubricate the end of the tube using a water-based lubricant.
- Gently pass the tube into the child’s nostril, advancing it along the floor of the nasopharynx to the oropharynx. Ask the child to swallow a little water, or offer a younger child their soother, to assist package of the tube down the oesophagus. Never advance the tube against resistance.
- if the child shows signs of breathlessness of severe coughing, remove the tube immediately.
- Lightly secure the tube with tape until the position has been checked.
**Text C**

Administering feeds/fluid via a feeding tube

Feeds are ordered through a referral to the dietitian.

When feeding directly into the small bowel, feeds must be delivered continuously via a feeding pump. The small bowel cannot hold large volumes of feed.

Feed bottles must be changed every six hours, or every four hours for expressed breast milk.

*Under no circumstances should the feed be decanted from the container in which it is sent up from the special feeds unit.*

All feeds should be monitored and recorded hourly using a fluid balance chart.

If oral feeding is appropriate, this must also be recorded.

The child should be measured and weighed before feeding commences and then twice weekly.

The use of this feeding method should be re-assessed, evaluated and recorded daily.

---

**Text D**

Administering feeds/fluid via a feeding tube

Feeds are ordered through a referral to the dietitian.

When feeding directly into the small bowel, feeds must be delivered continuously via a feeding pump. The small bowel cannot hold large volumes of feed.

Feed bottles must be changed every six hours, or every four hours for expressed breast milk.

*Under no circumstances should the feed be decanted from the container in which it is sent up from the special feeds unit.*

All feeds should be monitored and recorded hourly using a fluid balance chart.

If oral feeding is appropriate, this must also be recorded.

The child should be measured and weighed before feeding commences and then twice weekly.

The use of this feeding method should be re-assessed, evaluated and recorded daily.
The use of feeding tubes in paediatrics: Questions

Questions 1 – 7

For each question, 1 – 7, decide which texts (A, B, C or D) the information comes from. You may use any letter more than once.

In which text can you find information about

1. the risks of feeding a child via a nasogastric tube?

2. calculating the length of tube that will be required for a patient?

3. when alternative forms of feeding may be more appropriate than nasogastric?

4. who to consult over a patient’s liquid food requirements?

5. the outward appearance of the tubes?

6. knowing when it is safe to go ahead with the use of a tube for feeding?

7. how regularly different kinds of tube need replacing?
Questions 8 – 15

Answer each of the questions, 8 – 15, with a word or short phrase from one of the texts. Each answer may include words, numbers or both.

8. What type of tube should you use for patients who need nasogastric feeding for an extended period?

9. What should you apply to a feeding tube to make it easier to insert?

10. What should you use to keep the tube in place temporarily?

11. What equipment should you use initially to aspirate a feeding tube?

12. If initial aspiration of the feeding tube is unsuccessful, how long should you wait before trying again?

13. How should you position a patient during a second attempt to obtain aspirate?

14. If aspirate exceeds pH 5.5, where should you take a patient to confirm the position of the tube?

15. What device allows for the delivery of feeds via a small bowel?
Questions 16 – 20

Complete each of the sentences, 16 – 20, with a word or short phrase from one of the texts. Each answer may include words, numbers or both.

16. If a feeding tube isn’t straight when you unwrap it, you should .................................. it.

17. Patients are more likely to experience .............................................. if they need long-term feeding via a tube.

18. If you need to give the patient a standard liquid feed, the tube to use is ...................................... in size.

19. You must take out the feeding tube at once if the patient is coughing badly or is experiencing ............................................

20. If a child is receiving ............................................... via feeding tube, you should replace the feed bottle after four hours.

END OF PART A

THIS QUESTION PAPER WILL BE COLLECTED
Part B

In this part of the test, there are six short extracts relating to the work of health professionals. For questions 1 – 6, choose answer (A, B or C) which you think fits best according to the text.

1. If vaccines have been stored incorrectly,
   A. this should be reported.
   B. staff should dispose of them securely.
   C. they should be sent back to the supplier

**Manual extract: effective cold chain**

The cold chain is the system of transporting and storing vaccines within the temperature range from +2°C to + 8°C from the place of manufacture to the point of administration. Maintenance of the cold chain is essential for maintaining vaccine potency and, in turn, vaccine effectiveness.

Purpose-build vaccine refrigerators (PBVR) are the preferred means of storage for vaccines. Domestic refrigerators are not designed for the special temperature needs of vaccine storage.

Despite best practices, cold chain breaches sometimes occur. Do not discard or use any vaccines exposed to temperatures below +2°C or above + 8°C without obtaining further advice. Isolate vaccines and contact the state or territory public health bodies for advice on the National Immunisation Program and the manufacturer for privately purchased vaccines.
2. According to the extract, prior to making a home visit, nurses must
   A. record the time they leave the practice.
   B. refill their bag with necessary items.
   C. communicate their intentions to others.

Nurse home visit guidelines
When the nurse is ready to depart, he/she must advise a minimum of two staff members that he/she is commencing home visits, with one staff member responsible for logging the nurse’s movements. More than one person must be made aware of the nurse’s movement; failure to do so could result in the breakdown of communication and increased risk to the nurse and/or practice.

On return to the practice, the nurse will immediately advise staff members of his/her return. The time will be documented on the patient visit list, and then scanned and filed by administration staff. The nurse will then attend to any specimens, cold chain requirements, restocking of the nurse kit and biohazardous waste.
3. What is being described in this section of the guidelines?
   A. Changes in procedures.
   B. Best practice procedures.
   C. Exceptions to the procedures.

---

**Guidelines for dealing with hospital waste**

All biological waste must be carefully stored and disposed of safely. Contaminated materials such as blood bags, dirty dressings and disposable needles are also potentially hazardous and must be treated accordingly. If biological waste and contaminated materials are not disposed of properly, staff and members of the community could be exposed to infectious material and become infected. It is essential for the hospital to have protocols for dealing with biological waste and contaminated materials. All staff must be familiar with them and follow them.

The disposal of biohazardous materials is time-consuming and expensive, so it is important to separate out non-contaminated waste such as paper, packaging and non-sterile materials. Make separate disposal containers available where waste is created so that staff can sort the waste as it is being discarded.
4. When is it acceptable for a health professional to pass on confidential information given by a patient?

A. If non-disclosure could adversely affect those involved.
B. If the patient’s treatment might otherwise be compromised.
C. If the health professional would otherwise be breaking the law.

<table>
<thead>
<tr>
<th>Extract from guidelines: Patient Confidentiality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Where a patient objects to information being shared with other health professionals involved in their care, you should explain how disclosure would benefit the continuity and quality of care. If their decision has implications for the proposed treatment, it will be necessary to inform the patient of this. Ultimately if they refuse, you must respect their decision, even if it means that for reasons of safety you must limit your treatment options. You should record their decision within their clinical notes.</td>
</tr>
<tr>
<td>It may be in the public interest to disclose information received in confidence without consent, for example, information about a serious crime. It is important that confidentiality may only be broken in this way in exceptional circumstances and then only after careful consideration. This means you can justify your actions and point out the possible harm to the patient or other interested parties if you hadn’t disclose the information. Theft, fraud or damage to property would generally not warrant a breach of confidence.</td>
</tr>
</tbody>
</table>
5. The purpose of the email to practitioners about infection control obligations is to
   A. act as a reminder of their obligations
   B. respond to a specific query they have raised.
   C. announce a change in regulations affecting them.

<table>
<thead>
<tr>
<th>Email from Dental Board of Australia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dear Practitioner,</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>You may be aware of the recent media and public interest in standards of infection control in dental practice. As regulators of the profession, we are concerned that there has been doubt among registered dental practitioners about these essential standards.</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Registered dental practitioners must comply with the National Board’s Guidelines on infection control. The guidelines list the reference material that you must have access to and comply with, including the National Health and Medical Research Council’s (NHMRC) Guidelines for the prevention and control of infection in healthcare.</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>We believe that most dental practitioners consistently comply with these guidelines and implement appropriate infection control protocols. However, the consequences for non-compliance with appropriate infection control measures will be significant for you and also for your patients and the community.</td>
</tr>
</tbody>
</table>
6. The results of the study described in the memo may explain why

A. superior communication skills may protect women from dementia.
B. female dementia suffers have better verbal skills.
C. mild dementia in women can remain undiagnosed.

**Memo to staff: Women and Dementia**

Please read this extract from a recent research paper

Women’s superior verbal skills could work against them when it comes to recognising Alzheimer’s disease. A new study looked at more than 1300 men and women divided into three groups: one group comprised patients with amnestic mild cognitive impairment; the second group included patients with Alzheimer’s dementia; and the final group included healthy controls. The researchers measured glucose metabolic rates with PET scans. Participants were then given immediate and delayed verbal recall tests.

Women with either no, mild or moderate problems performed better than men on the verbal memory tests. There was no difference in those with advanced Alzheimer’s.

Because verbal memory scores are used for diagnosing Alzheimer’s, some women may be further along in their disease before they are diagnosed. This suggests the need to have an increased index of suspicion when evaluating women with memory problems.
Part C

In this part of the test, there are two texts about different aspects of healthcare. For questions 7 – 22, choose the answer (A, B, C or D) which you think fits best according to the text.

Text 1: Asbestosis

Asbestos is a naturally occurring mineral that has been linked to human lung disease. It has been used in a huge number of products due to its high tensile strength, relative resistance to acid and temperature, and its varying textures and degrees of flexibility. It does not evaporate, dissolve, burn or undergo significant reactions with other chemicals. Because of the widespread use of asbestos, its fibres are ubiquitous in the environment. Building insulation materials manufactured since 1975 should no longer contain asbestos; however, products made or stockpiled before this time remain in many homes. Indoor air may become contaminated with fibres released from building materials, especially if they are damaged or crumbling.

One of the three types of asbestos-related diseases is asbestosis, a process of lung tissue scarring caused by asbestos fibres. The symptoms of asbestosis usually include slowly progressing shortness of breath and cough, often 20 to 40 years after exposure. Breathlessness advances throughout the disease, even without further asbestos inhalation. This fact is highlighted in the case of a 67-year-old retired plumber. He was on ramipril to treat his hypertension and developed a persistent dry cough, which his doctor presumed to be an ACE inhibitor induced cough. The ramipril was changed to losartan. The patient had never smoked and did not have a history of asthma or COPD. His cough worsened and he complained of breathlessness on exertion. In view of this history and the fact that he was a non-smoker, he was referred for a chest X-ray and to the local respiratory physician. His doctor was surprised to learn that the patient had asbestosis, diagnosed by a high-resolution CT scan. The patient then began legal proceedings to claim compensation as he had worked in a dockyard 25 years previously, during which time he was exposed to asbestos.

There are two major groups of asbestos fibres, the amphibole and chrysotile fibres. The amphiboles are much more likely to cause cancer of the lining of the lung (mesothelioma) and scarring of the lining of the lung (pleural fibrosis). Either group of fibres can cause disease of the lung, such as asbestosis. The risk of developing asbestos-related lung cancer varies between fibre types. Studies of groups of patients exposed to chrysotile fibres show only a moderate increase in risk. On the other hand, exposure to amphibole fibres or to both types of fibres increases the risk of lung cancer two-fold. Although the Occupational Safety and Health Administration (OSHA) has a standard for workplace exposure to asbestos (0.2 fibres/millilitre of air), there is debate over what constitutes a safe level of exposure.
While some believe asbestos-related disease is a 'threshold phenomenon', which requires a certain level of exposure for disease to occur, others believe there is no safe level of asbestos.

Depending on their shape and size, asbestos fibres deposit in different areas of the lung. Fibres less than 3mm easily move into the lung tissue and the lining surrounding the lung. Long fibres, greater than 5mm cannot be completely broken down by scavenger cells (macrophages) and become lodged in the lung tissue, causing inflammation. Substances damaging to the lungs are then released by cells that are responding to the foreign asbestos material. The persistence of these long fibres in the lung tissue and the resulting inflammation seem to initiate the process of cancer formation. As inflammation and damage to tissue around the asbestos fibres continues, the resulting scarring can extend from small airways to the larger airways and the tiny air sacs (alveoli) at the end of the airways.

There is no cure for asbestosis. Treatments focus on a patient's ability to breathe. Medications like bronchodilators, aspirin and antibiotics are often prescribed and such treatments as oxygen therapy and postural drainage may also be recommended. If symptoms are so severe that medications don’t work, surgery may be recommended to remove scar tissue. Patients with asbestosis, like others with chronic lung disease, are at a higher risk of serious infections that take advantage of diseased or scarred lung tissue, so prevention and rapid treatment is vital. Flu and pneumococcal vaccinations are a part of routine care for these patients. Patients with progressive disease may be given corticosteroids and cyclophosphamide with limited improvement.

Chrysotile is the only form of asbestos that is currently in production today. Despite their association with lung cancer, chrysotile products are still used in 60 countries, according to the industry-sponsored Asbestos Institute. Although the asbestos industry proclaims the 'safety' of chrysotile fibres, which are now imbedded in less friable and 'dusty' products, little is known about the long term effects of these products because of the long delay in the development of disease. In spite of their potential health risks, the durability and cheapness of these products continue to attract commercial applications. Asbestosis remains a significant clinical problem even after marked reductions in on-the-job exposure to asbestos. Again **this** is due to the long period of time between exposure and the onset of disease.
Text 1: Questions 7 – 14

7. The writer suggests that the potential for harm from asbestos is increased by
   A. a change in the method of manufacture.
   B. the way it reacts with other substances.
   C. the fact that it is used so extensively.
   D. its presence in recently constructed buildings.

8. The word ‘ubiquitous’ in paragraph one suggests that asbestos fibres
   A. can be found everywhere.
   B. may last for a long time.
   C. have an unchanging nature.
   D. are a natural substance.

9. The case study of the 67-year-old man is given to show that
   A. smoking is unrelated to a diagnosis of asbestosis.
   B. doctors should be able to diagnose asbestosis earlier.
   C. the time from exposure to disease may cause delayed diagnosis.
   D. patients must provide full employment history details to their doctors.

10. In the third paragraph, the writer highlights the disagreement about
    A. the relative safety of the two types of asbestos fibres.
    B. the impact of types of fibres on disease development.
    C. the results of studies into the levels of risk of fibre types.
    D. the degree of contact with asbestos fibres considered harmful.
11. In the fourth paragraph, the writer points out that longer asbestos fibres

A. can travel as far as the alveoli.
B. tend to remain in the pulmonary tissue.
C. release substances causing inflammation.
D. mount a defence against the body’s macrophages.

12. What is highlighted as an important component of patient management?

A. The use of corticosteroids.
B. Infection control.
C. Early intervention.
D. Excision of scarred tissue.

13. The writer states that products made from chrysotile

A. have restricted application.
B. may post a future health threat.
C. enjoy approval by the regulatory bodies.
D. are safer than earlier asbestos-containing products.

14. In the final paragraph, the word ‘this’ refers to

A. the interval from asbestos exposure to disease.
B. the decreased use of asbestos in workplaces.
C. asbestosis as an ongoing medical issue.
D. occupational exposure to asbestos.
Text 2: Medication non-compliance

A US doctor gives his views on a new program

An important component of a patient’s history and physical examination is the question of ‘medication compliance,’ the term used by physicians to designate whether, or not, a patient is taking his or her medications. Many a hospital chart bears the notorious comment 'Patient has a history of non-compliance.' Now, under a new experimental program in Philadelphia, USA, patients are being paid to take their medications. The concept makes sense in theory - failure to comply is one of the most common reasons that patients are readmitted to hospital shortly after being discharged.

Compliant patients take their medications because they want to live as long as possible; some simply do so because they're responsible, conscientious individuals by nature. But the hustle and bustle of daily life and employment often get in the way of taking medications, especially those that are timed inconveniently or in frequent doses, even for such well-intentioned patients. For the elderly and the mentally or physically impaired, US insurance companies will often pay for a daily visit by a nurse, to ensure a patient gets at least one set of the most vital pills. But other patients are left to fend for themselves, and it is not uncommon these days for patients to be taking a considerable number of vital pills daily.

Some patients have not been properly educated about the importance of their medications in layman’s terms. They have told me, for instance, that they don’t have high blood pressure because they were once prescribed a high blood pressure pill — in essence, they view an antihypertensive as an antibiotic that can be used as short-term treatment for a short-term problem. Others have told me that they never had a heart attack because they were taken to the cardiac catheterization lab and 'fixed.' As physicians we are responsible for making sure patients understand their own medical history and their own medications.

Not uncommonly patients will say, 'I googled it the other day, and there was a long list of side effects.' But a simple conversation with the patient at this juncture can easily change their perspective. As with many things in medicine, it’s all about risks versus benefits — that’s what we as physicians are trained to analyse. And patients can rest assured that we'll monitor them closely for side effects and address any that are unpleasant, either by treating them or by trying a different medication.

But to return to the program in Philadelphia, my firm belief is that if patients don’t have strong enough incentives to take their medications so they can live longer, healthier lives, then the long-term benefits of providing a financial incentive are likely to be minimal. At the outset, the rewards may be substantial enough to elicit a response. But one isolated system or patient study is not an accurate depiction of the real-life scenario: patients will have to be taking these medications for decades.
Although a simple financial incentives program has its appeal, its complications abound. What's worse, it seems to be saying to society: as physicians, we tell our patients that not only do we work to care for them, but we'll now pay them to take better care of themselves. And by the way, for all you medication-compliant patients out there, you can have the inherent reward of a longer, healthier life, but we're not going to bother sending you money. This seems like some sort of implied punishment.

But more generally, what advice can be given with non-compliant patients? Dr John Steiner has written a paper on the matter: 'Be compassionate,' he urges doctors. 'Understand what a complicated balancing act it is for patients.' He's surely right on that score. Doctors and patients need to work together to figure out what is reasonable and realistic, prioritizing which measures are most important. For one patient, taking the diabetes pills might be more crucial than trying to quit smoking. For another, treating depression is more critical than treating cholesterol. 'Improving compliance is a team sport,' Dr Steiner adds. 'Input from nurses, care managers, social workers and pharmacists is critical.'

When discussing the complicated nuances of compliance with my students, I give the example of my grandmother. A thrifty, no-nonsense woman, she routinely sliced all the cholesterol and heart disease pills her doctor prescribed in half, taking only half the dose. If I questioned this, she'd wave me off with, 'What do those doctors know, anyway?' Sadly, she died suddenly, aged 87, most likely of a massive heart attack. Had she taken her medicines at the appropriate doses, she might have survived it. But then maybe she'd have died a more painful death from some other ailment. Her biggest fear had always been liar ending up dependent in a nursing home, and by luck or design, she was able to avoid that. Perhaps there some wisdom in her 'non-compliance'.
Text 2: Questions 15 – 22

15. In the first paragraph, what is the writer’s attitude towards the new programme?

A. He doubts that it is correctly named.
B. He appreciates the reasons behind it.
C. He is sceptical about whether it can work.
D. He is more enthusiastic than some other doctors.

16. In the second paragraph, the writer suggests that one category of non-compliance is

A. elderly patients who are given occasional assistance.
B. patients who are over-prescribed with a certain drug.
C. busy working people who mean to be compliant.
D. people who are by nature wary of taking pills.

17. What problem with some patients is described in the third paragraph?

A. They forget which prescribed medication is for which of their conditions.
B. They fail to recognise that some medical conditions require ongoing treatments.
C. They don’t understand their treatment even when it is explained in simple terms.
D. They believe that taking some prescribed pills means they don’t need to take others.

18. What does the writer say about side effects to medication?

A. Doctors need to have better plans in place if they develop.
B. There is too much misleading information about them online.
C. Fear of them can waste a lot of unnecessary consultation time.
D. Patients need to be informed about the likelihood of them occurring.
19. In the fifth paragraph, what is the writer’s reservation about the Philadelphia program?

A. The long-term feasibility of the central idea.
B. The size of the financial incentives offered.
C. The types of medication that were targeted.
D. The particular sample chosen to participate.

20. What objection to the program does the writer make in the sixth paragraph?

A. It will be counter-productive.
B. It will place heavy demands on doctors.
C. It sends the wrong message to patients.
D. It is a simplistic idea that falls down on its details.

21. The expression ‘on that score’ in the seventh paragraph refers to

A. A complex solution to patients’ problems.
B. A co-operative attitude amongst medical staff.
C. A realistic assessment of why something happens.
D. A recommended response to the concerns of patients.

22. The writer suggests that his grandmother

A. may ultimately have benefitted from her non-compliance.
B. would have appreciated closer medical supervision.
C. might have underestimated how ill she was.
D. should have followed her doctor’s advice.

END OF READING TEST
READING SUB-TEST - ANSWER KEY

PART A: QUESTIONS 1 – 20

1. A
2. B
3. A
4. D
5. B
6. C
7. B
8. fine bore
9. water-based lubricant
10. tape
11. (a) syringe
12. 15 – 30 minutes/mins OR fifteen-thirty minutes/mins
13. (turn) on(to) left side
14. (to) x-ray (department) OR (to) radiology
15. (a) feeding pump
16. stretch
17. gastroesophageal reflux
18. 6/six Fr/French
19. breathlessness
20. (expressed) breast milk
PART B: QUESTIONS 1 – 6

1. A – this should be reported.
2. C – communicate their intentions to others.
4. A – if non-disclosure could adversely affect those involved.
5. A – act as a reminder of their obligations.
6. C – mild dementia in women can remain undiagnosed.

PART C: QUESTIONS 7 – 14

7. C – the fact that it is used so extensively.
8. A – can be found everywhere.
9. C – the time from exposure to disease may cause delayed diagnosis.
10. D – the degree of contact with asbestos fibres considered harmful.
11. B – tend to remain in the pulmonary tissue.

PART C: QUESTIONS 15 – 22

15. B – he appreciates the reasons behind it.
16. C – busy working people who mean to be compliant.
17. B – they fail to recognise that some medical conditions require ongoing treatment.
18. D – patients need to be informed about the likelihood of them occurring.
19. A – the long-term feasibility of the central idea.
20. C – it sends the wrong message to patients.
21. D – a recommended response to the concerns of patients.
22. A – may ultimately have benefited from her non-compliance.
Practice Test 2.
Occupational English Test

Reading Test

Part A

TIME: 15 minutes

- Look at the four texts, A – D, on the following pages.
- For each question, 1 – 20, look through the texts, A – D, to find the relevant information.
- Write your answers on the spaces provided in the Question Paper.
- Answer all the questions within the 15-minute time limit.
- Your answers should be correctly spelt.
**Tetanus:** Texts

### Text A

Tetanus is a severe disease that can result in serious illness and death. Tetanus vaccination protects against the disease.

Tetanus (sometimes called lock-jaw) is a disease caused by the bacteria *Clostridium tetani*. Toxins made by the bacteria attack a person’s nervous system. Although the disease is fairly uncommon, it can be fatal.

Early symptoms of tetanus include:
- Painful muscle contractions that begin in the jaw (lock jaw)
- Rigidity in neck, shoulder and back muscles
- Difficulty swallowing
- Violent generalised muscle spasms
- Convulsions
- Breathing difficulties

A person may have a fever and sometimes develop abnormal heart rhythms. Complications include pneumonia, broken bones (from the muscle spasms), respiratory failure and cardiac arrest.

There is no specific diagnostic laboratory test; diagnosis is made clinically. The spatula test is useful: touching the back of the pharynx with a spatula elicits a bite reflex in tetanus, instead of a gag reflex.

### Text B

**Tetanus Risk**

Tetanus is an acute disease induced by the toxin *tetanus bacilli*, the spores of which are present in soil.

A TETANUS-PRONE WOUND IS:
- any wound or burn that requires surgical intervention that is delayed for > 6 hours
- any wound or burn at any interval after injury that shows one or more of the following characteristics
  - a significant degree of tissue damage
  - puncture-type wound particularly where there has been contact with soil or organic matter which is likely to harbour tetanus organisms
- any wound from compound fractures
- any wound containing foreign bodies
- any wound or burn in patients who have systemic sepsis
- any bite wound
- any wound from tooth implantation

Intravenous drug users are at greater risk of tetanus. Every opportunity should be taken to ensure that they are fully protected against tetanus. Booster doses should be given if there is any doubt about their immunisation status.

Immunosuppressed patients may not be adequately protected against tetanus, despite having been fully immunised. They should be managed as if they were incompletely immunised.
Thorough cleaning of the wound is essential irrespective of the immunisation history of the patient, and appropriate antibiotics should be prescribed.

<table>
<thead>
<tr>
<th>Immunisation Status</th>
<th>Clean Wound</th>
<th>Tetanus-prone wound</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vaccine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fully immunised (1)</td>
<td>Not required</td>
<td>Not required</td>
</tr>
<tr>
<td>Primary immunisation complete, boosters incomplete but up to date</td>
<td>Not required</td>
<td>Not required</td>
</tr>
<tr>
<td>Primary immunisation incomplete or boosters not up to date</td>
<td>Reinforcing dose and further doses to complete recommended schedule</td>
<td>Reinforcing dose and further doses to complete recommended schedule</td>
</tr>
<tr>
<td>Not immunised or immunisation status not known/ uncertain (3)</td>
<td>Immediate dose of vaccine followed by completion of full 5-dose course</td>
<td>Immediate dose of vaccine followed by completion of full 5-dose course</td>
</tr>
</tbody>
</table>

**Notes**

1. has received a total of 5 doses of vaccine at appropriate intervals
2. heavy contamination with material likely to contain tetanus spores and/or extensive devitalised tissue
3. immunosuppressed patients presenting with a tetanus-prone wound should always be managed as if they were incompletely immunised
Human Tetanus Immunoglobulin (HTIG)

**Indications**
- treatment of clinically suspected cases of tetanus
- prevention of tetanus in high-risk, tetanus-prone wounds

**Dose**
Available in 1ml ampoules containing 250IU

<table>
<thead>
<tr>
<th>Prevention Dose</th>
<th>Treatment Dose</th>
</tr>
</thead>
<tbody>
<tr>
<td>250 IU by IM injection (1)</td>
<td></td>
</tr>
<tr>
<td>Or</td>
<td></td>
</tr>
<tr>
<td>500 IU by IM injection (1) if &gt; 24 hours since injury/risk of heavy contamination/burns</td>
<td></td>
</tr>
<tr>
<td>5,000 – 10,000 IU by IV infusion</td>
<td></td>
</tr>
<tr>
<td>Or</td>
<td></td>
</tr>
<tr>
<td>150 IU/kg by IM injection (1) (given in multiple sites) if IV preparation unavailable</td>
<td></td>
</tr>
</tbody>
</table>

(1) Due to its viscosity, HTIG should be administered slowly, using a 23 gauge needle

**Contraindications**
- Confirmed anaphylactic reaction to tetanus containing vaccine
- Confirmed anaphylactic reaction to neomycin, streptomycin or polymyxin B

**Adverse reactions**
Local – pain, erythema, induration (Arthus-type reaction)
General – pyrexia, hypotonic-hyporesponsive episode, persistent crying
Tetanus: Questions

Questions 1 – 6

For each question, 1 – 6, decide which texts (A, B, C or D) the information comes from. You may use any letter more than once.

In which text can you find information about

1. the type of injuries that may lead to tetanus? .............................................................

2. signs that a patient may have tetanus? .................................................................

3. how to decide whether a tetanus vaccine is necessary? ..............................................

4. an alternative name for tetanus? ...............................................................................

5. possible side-effects of a particular tetanus medication? ............................................

6. other conditions which are associated with tetanus? ..................................................
Questions 7 - 13

Complete each of the sentences, 7 – 13, with a word or short phrase from one of the texts. Each answer may include words numbers or both.

Patients at increased risk of tetanus:

7. If a patient has been touching ........................................... or earth, they are more susceptible to tetanus.

8. Any ............................................... lodged in the site of an injury will increase the likelihood of tetanus.

9. Patients with ........................................... fractures are prone to tetanus.

10. Delaying surgery on an injury or burn by more than ............................................... increases the probability of tetanus.

11. If a burns patient has been diagnosed with ............................................... they are more liable to contract tetanus.

12. A patient who is ............................................... or a regular recreational drug user will be at greater risk of tetanus.

Management of tetanus-prone injuries

13. Clean the wound thoroughly and prescribe ............................................... if necessary, followed by tetanus vaccine and HTIG as appropriate.
Questions 14 – 20

Answer each of the questions, 14 – 20, with a word or short phrase from one of the texts. Each answer may include words, numbers or both.

14. Where will a patient suffering from tetanus first experience muscle contractions?

15. What can muscle spasms in tetanus patients sometimes lead to?

16. If you test for tetanus using a spatula, what type of reaction will confirm the condition?

17. How many times will you have to vaccinate a patient who needs a full course of tetanus vaccine?

18. What should you give a drug user if you’re uncertain of their vaccination history?

19. What size of needle should you use to inject HTIG?

20. What might a patient who experienced an adverse reaction to HTIG be unable to stop doing?
Part B

In this part of the test, there are six short extracts relating to the work of health professionals. For questions 1 – 6, choose answer (A, B or C) which you think fits best according to the text.

1. Nursing staff can remove a dressing if

   A. a member of the surgical team is present.
   B. there is severe leakage from the wound.
   C. they believe that the wound has healed.

**Post-operative dressings**

Dressings are an important component of post-operative wound management. Any dressings applied during surgery have been done in sterile conditions and should ideally be left in place, as stipulated by the surgical team. It is acceptable for initial dressings to be removed prematurely in order to have the wound removed prematurely in order to have the wound reviewed and, in certain situations, apply a new dressing. These situations include when the dressing is no longer serving its purpose (i.e. dressing falling off, excessive exudate soaking through the dressing and resulting in a suboptimal wound healing environment) or when a wound complication is suspected.
2. As explained in the protocol, the position of the RUM container will ideally

A. encourage participation in the scheme.

B. emphasise the value of recycling.

C. facilitate public access to it.

**Unwanted medicine: pharmacy collection protocol**

A Returned Unwanted Medicine (RUM) Project approved container will be delivered by the wholesaler to the participating pharmacy.

The container is to be kept in a section of the dispensary or in a room or enclosure in the pharmacy to which the public do not have access. The container may be placed in a visible position, but out of reach of the public, as this will reinforce the message that unwanted prescription drugs can be returned to the pharmacy and that the returned medicines will not be recycled.

Needles, other sharps and liquid cytotoxic products should not be placed in the container, but in one specifically designed for such waste.
3. The report mentioned in the memo suggests that
   
   A. data about patient errors may be incomplete.
   
   B. errors by hospital staff can often go unreported.
   
   C. errors in prescriptions pose the greatest threat to patients.

---

**Memo: Report on oral anti-cancer medications**

Nurse Unit Managers are directly to review their systems for the administration of oral anti-cancer drugs, and the reporting of drug errors. Serious concerns have been raised in a recent report drawing on a national survey of pharmacists.

Please note the following paragraph quoted from the report:

Incorrect doses of oral anti-cancer medicines can have fatal consequences. Over the previous four years, there were three deaths and 400 patient safety issues involving oral anti-cancer medicines. Half of the reports concerned the wrong dosage, frequency, quantity or duration of oral anti-cancer treatment. Of further concern is that errors on the part of patients may be under-reported. In light of these reports, there is clearly a need for improved systems covering the management of patients receiving oral therapies.
4. What point does the training manual make about anaesthesia workstations?

A. Parts of the equipment have been shown to be vulnerable to failure.

B. There are several ways of ensuring that the ventilator is working effectively.

C. Monitoring by health professionals is a reliable way to maintain patient safety.

Anaesthesia Workstations
Studies on safety in anaesthesia have documented that human vigilance alone is inadequate to ensure patient safety and have underscored the importance of monitoring devices. These findings are reflected in improved standards for equipment design, guidelines for patient monitoring and reduced malpractice premiums for the use of capnography and pulse oximetry during anaesthesia. Anaesthesia workstations integrate ventilator technology with patient monitors and alarms to help prevent patient injury in the unlikely event of a ventilator failure. Furthermore, since the reservoir bag is part of the circuit during mechanical ventilation, the visible movement of the reservoir bag is confirmation that the ventilator is functioning.
5. In cases of snakebite, the flying doctor should be aware of

A. where to access specific antivenoms.

B. the appropriate method for wound cleaning.

C. the patients most likely to suffer complications.

**Memo to Flying Doctor staff: Antivenoms for snakebite**

**Before starting treatment:**

- Do not wash the snakebite site.
- If possible, determine the type of snake by using a ‘snake-venom detection kit’ to test a bite site swab or, in systemic envenoming, the person’s urine. If venom detection is not available or has proved negative, seek advice from a poisons information centre.
- Testing blood for venom is not reliable.
- Assess the degree of envenoming; not all confirmed snakebites will result in systemic envenoming; risk varies with the species of snake.
- People with pre-existing renal, hepatic, cardiac or respiratory impairment and those taking anticoagulant or antiplatelet drugs may have an increased risk of serious outcome from snakebite. Children are also especially at increased risk of severe envenoming because of smaller body mass and the likelihood of physical activity immediately after a bite.
6. What was the purpose of the BMTEC forum?

**A.** to propose a new way of carrying out cleaning audits.

**B.** to draw conclusions from the results of cleaning audits.

**C.** to encourage more groups to undertake cleaning audits.

<table>
<thead>
<tr>
<th>Cleaning Audits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Three rounds of environmental cleaning audits were completed in 2013 – 2014. Key personnel in each facility were surveyed to assess the understanding of environmental cleaning from the perspective of the nurse unit manager, environmental services manager and the director of clinical governance. Each facility received a report about their environmental cleaning audits and lessons learned from the surveys. Data from the 15 units were also provided to each facility for comparison purposes.</strong></td>
</tr>
</tbody>
</table>

The knowledge and experiences from the audits were shared at the BMTEC Forum in August 2014. This forum allowed environmental services managers, cleaners, nurses and clinical governance to discuss the application of the standards and promote new and improved cleaning practice. The second day of the forum focused on auditor training and technique with the view of enhancing internal environmental cleaning auditing by the participating groups. |
Part C

In this part of the test, there are two texts about different aspects of healthcare. For questions 7 – 22, choose the answer (A, B, C or D) which you think fits best according to the text.

Text 1: Does homeopathy ‘work’?

For many, homeopathy is simply unscientific, but regular users hold a very different view. Homeopathy works by giving patients very dilute substances that, in larger doses, would cause the very symptoms that need curing. Taking small doses of these substances - derived from plants, animals or minerals - strengthens the body's ability to heal and increases resistance to illness or infection. Or that is the theory. The debate about its effectiveness is nothing new. Recently, Australia’s National Health and Medical Research Council (NHMRC) released a paper which found there were 'no health conditions for which there was reliable evidence that homeopathy was effective'. This echoed a report from the UK House of Commons which said that the evidence failed to show a 'credible physiological mode of action' for homeopathic products, and that what data were available showed homeopathic products to be no better than placebo. Yet Australians spend at least $11 million per year on homeopathy.

So what's going on? If Australians - and citizens of many other nations around the world - are voting with their wallets, does this mean homeopathy must be doing something right? To me, the crux of the debate is a disconnect between how the scientific and medical community view homeopathy, and what many in the wider community are getting out of it,' says Professor Alex Broom of the University of Queensland. 'The really interesting question is how can we possibly have something that people think works, when to all intents and purposes, from a scientific perspective, it doesn't?'

Part of homeopathy's appeal may lie in the nature of the patient-practitioner consultation. In contrast to a typical 15-minute GP consultation, a first homeopathy consultation might take an hour and a half. 'We don't just look at an individual symptom in isolation. For us, that symptom is part of someone's overall health condition,' says Greg Cope, spokesman for the Australian Homeopathic Association. 'Often we'll have a consultation with someone and find details their GP simply didn't have time to.' Writer Johanna Ashmore is a case in point. She sees her homeopath for a one-hour monthly consultation. feel, if I go and say I've got this health concern, she's going to treat my body to fight it rather than just treat the symptom.'

Most people visit a homeopath after having received a diagnosis from a 'mainstream' practitioner, often because they want an alternative choice to medication, says Greg Cope. 'Generally speaking, for a homeopath, their preference is if someone has a diagnosis from a
medical Practitioner before starting homeopathic treatment, so it's rare for someone to come and see us with an undiagnosed condition and certainly if they do come undiagnosed, we'd want to refer them on and get that medical evaluation before starting a course of treatment,' he says.

Given that homeopathic medicines are by their very nature incredibly dilute — and, some might argue, diluted beyond all hope of efficacy — they are unlikely to cause any adverse effects, so where's the harm? Professor Paul Glasziou, chair of the NHMRC's Homeopathy Working Committee, says that while financial cost is one harm, potentially more harmful are the non-financial costs associated with missing out on effective treatments. 'If it's just a cold, I'm not too worried. But if it's for a serious illness, you may not be taking disease-modifying treatments, and most worrying is things like HIV which affect not only you, but people around you,' says Glasziou. This is a particular concern with homeopathic vaccines, he says, which jeopardise the 'herd immunity' — the immunity of a significant proportion of the population — which is crucial in containing outbreaks of vaccine-preventable diseases.

The question of a placebo effect inevitably arises, as studies repeatedly seem to suggest that whatever benefits are being derived from homeopathy are more a product of patient faith rather than of any active ingredient of the medications. However, Greg Cope dismisses this argument, pointing out that homeopathy appears to benefit even the sceptics: 'We might see kids first, then perhaps Mum and after a couple of years, Dad will follow and, even though he's only there reluctantly, we get wonderful outcomes. This cannot be explained simply by the placebo effect.' As a patient, Johanna Ashmore is aware scientific research does little to support homeopathy but can still see its benefits. 'If seeing my homeopath each month improves my health, I'm happy. I don't care how it works, even if it's all in the mind — I just know that it does.'

But if so many people around the world are placing their faith in homeopathy, despite the evidence against it, Broom questions why homeopathy seeks scientific validation. The problem, as he sees it, lies in the fact that 'if you're going to dance with conventional medicine and say "we want to be proven to be effective in dealing with discrete physiological conditions", then you indeed do have to show efficacy. In my view this is not about broader credibility per se, it's about scientific and medical credibility — there's actually quite a lot of cultural credibility surrounding homeopathy within the community but that's not replicated in the scientific literature.'
Text 1: Questions 7 – 14

7. The two reports mentioned in the first paragraph both concluded that homeopathy
   A. could be harmful if not used appropriately.
   B. merely works on the same basis as the placebo effect.
   C. lacks any form of convincing proof of its value as a treatment.
   D. would require further investigation before it was fully understood.

8. When commenting on the popularity of homeopathy, Professor Brown shows his
   A. surprise at people’s willingness to put their trust in it.
   B. frustration at scientists’ inability to explain their views on it.
   C. acceptable of the view that the subject may merit further study.
   D. concern over the risks people face when receiving such treatment.

9. Johanna Ashmore’s views of homeopathy highlight
   A. how practitioners put their patients at ease.
   B. the key attraction of the approach for patients.
   C. how it suits patients with a range of health problems.
   D. the opportunities to improve patient care which GPs miss.

10. In the fourth paragraph, it is suggested that visits to homeopaths
    A. occasionally dependent on a referral from a mainstream doctor.
    B. frequently result from a patient’s treatment preference.
    C. should be preceded by a visit to a relevant specialist.
    D. often reveal previously overlooked medical problems.
11. What particularly concerns Professor Glasziou?

A. The risks to patients of relying on homeopathic vaccinations.
B. The mistaken view that homeopathic treatments can only do good.
C. The way that homeopathic remedies endanger more than just the user.
D. The ineffectiveness of homeopathic remedies against even minor illnesses.

12. Greg Cope uses the expression ‘wonderful outcomes’ to underline

A. the ability of homeopathy to defy its scientific critics
B. the value of his patients’ belief in the whole process.
C. the claim that he has solid proof that homeopathy works.
D. the way positive results can be achieved despite people’s doubts.

13. From the comments quoted in the sixth paragraph, it is clear that Johanna Ashmore is

A. prepared to accept that homeopathy may dependent on psychological factors.
B. happy to admit that she was uncertain at first about proceeding.
C. sceptical about the evidence against homeopathic remedies.
D. confident that research will eventually validate homeopathy.

14. What does the word ‘this’ in the final paragraph refer to?

A. The continuing inability of homeopathy to gain scientific credibility.
B. The suggestion that the scientific credibility of homeopathy is in doubt.
C. The idea that there is no need to pursue scientific acceptance for homeopathy.
D. The motivation behind the desire for homeopathy to gain scientific acceptance.
Text 2: Brain-controlled prosthetics

Paralysed from the neck down by a stroke, Cathy Hutchinson stared fixedly at a drinking straw in a bottle on the table in front of her. A cable rose from the top of her head, connecting her to a robot arm, but her gaze never wavered as she mentally guided the robot arm, which was opposite her, to close its grippers around the bottle, then slowly lift the vessel towards her mouth. Only when she finally managed to take a sip did her face relax. This example illustrates the strides being taken in brain-controlled prosthetics. But Hutchinson's focused stare also illustrates the one crucial feature still missing from prosthetics. Her eyes could tell her where the arm was, but she couldn't feel what it was doing.

Prosthetics researchers are now trying to create prosthetics that can 'feel'. It's a daunting task: the researchers have managed to read signals from the brain; now they must write information into the nervous system. Touch encompasses a complicated mix of information - everything from the soft prickliness of wool to the slipping of a sweaty soft-drink can. The sensations arise from a host of receptors in the skin, which detect texture, vibration, pain, temperature and shape, as well as from receptors in the muscles, joints and tendons that contribute to 'proprioception' - the sense of where a limb is in space. Prosthetics are being outfitted with sensors that can gather many of these sensations, but the challenge is to get the resulting signals flowing to the correct part of the brain.

For people who have had limbs amputated, the obvious way to achieve that is to route the signals into the remaining nerves in the stump, the part of the limb left after amputation. Ken Horch, a neuroprosthetics researcher, has done just that by threading electrodes into the nerves in stumps then stimulating them with a tiny current, so that patients felt like their fingers were moving or being touched. The technique can even allow patients to distinguish basic features of objects: a man who had lost his lower arms was able to determine the difference between blocks made of wood or foam rubber by using a sensor-equipped prosthetic hand. He correctly identified the objects' size and softness more than twice as often as would have been expected by chance. Information about force and finger position was delivered from the prosthetic to a computer, which prompted stimulation of electrodes implanted in his upper-arm nerves.

As promising as this result was, researchers will probably need to stimulate hundreds or thousands of nerve fibres to create complex sensations, and they'll need to keep the devices working for many years if they are to minimise the number of surgeries required to replace them as they wear out. To get around this, some researchers are instead trying to give patients sensory feedback by touching their skin. The technique was discovered by accident by researcher Todd Kuiken. The idea was to rewire arm nerves that used to serve the hand, for example, to muscles in other parts of the body. When the patient thought about closing his or her hand, the newly targeted muscle would contract and generate an electric signal, driving movement of the prosthetic.
However, this technique won't work for stroke patients like Cathy Hutchinson. So some researchers are skipping directly to the brain. In principle, this should be straightforward. Because signals from specific parts of the body go to specific parts of the brain, scientists should be able to create sensations of touch or proprioception in activating the neurons that normally receive those signals. However, with electrical stimulation, all neurons close to the electrode's tip are activated indiscriminately, so 'even if I had the sharpest needle in the Universe, that could create unintended effects', says Arto Nurmikko, a neuroengineer. For example, an attempt to create sensation in one finger might produce sensation in other parts of the hand as well, he says.

Nurmikko and other researchers are therefore using light, in place of electricity, to activate highly specific groups of neurons and recreate a sense of touch. They trained a monkey to remove its hand from a pad when it vibrated. When the team then stimulated the part of its brain that receives tactile information from the hand with a light source implanted in its skull, the monkey lifted its hand off the pad about 90% of the time. The use of such techniques in humans is still probably 10-20 years away, but it is a promising strategy.

Even if such techniques can be made to work, it's unclear how closely they will approximate natural sensations. Tingles, pokes and vibrations are still a far cry from the complicated sensations that we feel when closing a hand over an apple, or running a finger along a table's edge. But patients don't need a perfect sense of touch, says Douglas Weber, a bioengineer. Simply having enough feedback to improve their control of grasp could help people to perform tasks such as picking up a glass of water, he explains. He goes on to say that patients who wear cochlear implants, for example, are often happy to regain enough hearing to hold a phone conversation, even if they're still unable to distinguish musical subtleties.
Text 2: Questions 15 – 22

15. What do we learn about the experiment Cathy Hutchinson took part in?

A. It required intense concentration.
B. It failed to achieve what it had set out to do.
C. It could be done more quickly given practice.
D. It was the first time that it had been attempted.

16. The task facing researchers is described as ‘daunting’ because

A. signals from the brain can be misunderstood.
B. it is hard to link muscle receptors with each other.
C. some aspects of touch are too difficult to reproduce.
D. the connections between sensors and the brain need to be exact.

17. What is said about the experiment done on the patient in the third paragraph?

A. There was statistical evidence that it was successful.
B. It enable the patient to have a wide range of feeling.
C. Its success depended on when amputation had taken place.
D. It required the use of a specially developed computer programme.

18. What drawback does the writer mention in the fourth paragraph?

A. The devices have a high failure rate.
B. Patients might have to undergo too many operations.
C. It would only be possible to create rather simply sensations.
D. The research into the new technique hasn’t been rigorous enough.
19. What point is made in the fifth paragraph?

A. Severed nerves may be able to be reconnected.
B. More research needs to be done on stroke victims.
C. Scientists’ previous ideas about the brain have been overturned.
D. It is difficult for scientists to pinpoint precise areas with an electrode.

20. What do we learn about the experiment that made use of light?

A. It can easily be replicated in humans.
B. It worked as well as could be expected.
C. It may have more potential than electrical stimulation.
D. It required more complex surgery than previous experiments.

21. In the final paragraph, the writer uses the phrase ‘a far cry from’ to underline

A. how much more there is to achieve.
B. how complex experiments have become.
C. the need to reduce people’s expectations.
D. the differences between types of artificial sensation.

22. Why does Weber give the example of a cochlear implant?

A. To underline the need for a similar breakthrough in prosthetics.
B. To illustrate the fact that some sensation is better than none.
C. To highlight the advanced made in other areas of medicine.
D. To demonstrate the ability of the body to relearn skills.
READING SUB-TEST - ANSWER KEY

PART A: QUESTIONS 1 – 20

1. B
2. A
3. C
4. A
5. D
6. A
7. organic matter
8. foreign bodies
9. compound
10. 6/six hours
11. systemic sepsis
12. immuno(-)suppressed
13. antibiotics
14. (in) (the) jaw
15. broken bones
16. (a) bite reflex
17. 5/five (times)
18. (a) booster dose OR booster doses
19. twenty-three/23 gauge
20. crying
PART B: QUESTIONS 1 – 6

1. B – there is severe leakage from the wound
2. A – encourage participation in the scheme.
3. A – data about patient errors may be incomplete.
4. B – there are several ways of ensuring that the ventilator is working effectively.
5. C – the patients most likely to suffer complications.
6. B – to draw conclusions from the results of cleaning audits.

PART C: QUESTIONS 7 – 14

8. A – surprise at people’s willingness to put their trust in it.
9. B – the key attraction of the approach for patients.
11. C – the way that homeopathic remedies endanger more than just the user.
12. D – the way positive results can be achieved despite people’s doubts.
13. A – prepared to accept that homeopathy may dependent on psychological factors.
14. D – the motivation behind the desire for homeopathy to gain scientific acceptance.

PART C: QUESTIONS 15 – 22

15. A – it required intense concentration.
16. D – the connections between sensors and the brain need to be exact.
17. A – there was statistical evidence that it was successful
18. B – patients might have to undergo too many operations.
19. D – it is difficult for scientists to pinpoint precise areas with an electrode.
20. C – to may have more potential than electrical stimulation.
21. A – how much more there is to achieve.
22. B – to illustrate the fact that some sensation is better than none.
Practice Test 3.
Occupational English Test

Reading Test

Part A

TIME: 15 minutes

- Look at the four texts, A – D, on the following pages.
- For each question, 1 – 20, look through the texts, A – D, to find the relevant information.
- Write your answers on the spaces provided in the Question Paper.
- Answer all the questions within the 15-minute time limit.
- Your answers should be correctly spelt.
Necrotizing Fasciitis (NF): Texts

Text A

Necrotizing fasciitis (NF) is a severe, rare, potentially lethal soft tissue infection that develops in the scrotum and perineum, the abdominal wall, or the extremities. The infection progresses rapidly, and septic shock may ensue; hence, the mortality rate is high (median mortality 32.3%). NF is classified into four types, depending on microbiological findings.

Table 1
Classification of responsible pathogens according to type of infection

<table>
<thead>
<tr>
<th>Microbiological type</th>
<th>Pathogens</th>
<th>Site of infection</th>
<th>Co-morbidities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type 1 (polymicrobial)</td>
<td>Obligate and facultative anaerobes</td>
<td>Trunk and perineum</td>
<td>Diabetes mellitus</td>
</tr>
<tr>
<td>Type 2 (monomicrobial)</td>
<td>Beta-hemolytic streptococcus A</td>
<td>Limbs</td>
<td></td>
</tr>
<tr>
<td>Type 3</td>
<td><em>Clostridium</em> species Gram-negative bacteria</td>
<td>Limbs, trunk and perineum</td>
<td>Trauma Seafood consumption (for <em>Aeromonas</em>)</td>
</tr>
<tr>
<td>Type 4</td>
<td><em>Candida</em> spp. Zygomycetes</td>
<td>Limb, trunk, perineum</td>
<td>Immuno-suppression</td>
</tr>
</tbody>
</table>

Text B

Antibiotic treatment for NF

Type 1
- Initial treatment includes ampicillin or ampicillin-sulbactam combined with metronidazole or clindamycin.
- Broad gram-negative coverage is necessary as an initial empirical therapy for patients who have recently been treated with antibiotics, or been hospitalised. In such cases, antibiotics such as ampicillin-sulbactam, piperacillin-tazobactam, ticarcillin-clavulinate acid, third or fourth generation cephalosporins, or carbapenems are used, and at a higher dosage.

Type 2
- First or second generation of cephalosporins are used for the coverage of methicillin-sensitive Staphylococcus aureus (MSSA).
- MRSA tends to be covered by vancomycin, or daptomycin and linezolid in cases where S. aureus is resistant to vancomycin.

Type 3
- NF should be managed with clindamycin and penicillin, which kill the *Clostridium* species.
- If *Vibrio* infection is suspected, the early use of tetracyclines (including doxycycline and minocycline) and third generation cephalosporins is crucial for the survival of the patient, since these antibiotics have been shown to reduce the mortality rate drastically.
Type 4
- Can be treated with amphotericin B or fluoroconazoles, but the results of this treatment are generally disappointing.

Antibiotics should be administered for up to 5 days after local signs and symptoms have resolved. The mean duration of antibiotic therapy for NF is 4 – 6 weeks.

Text C
Supportive care in an ICU is critical to NF survival. This involves fluid resuscitation, cardiac monitoring, aggressive wound care, and adequate nutritional support. Patients with NF are in a catabolic state and require increased caloric intake to combat infection. This can be delivered orally or via nasogastric tube, peg tube, or intravenous hyperalimentation. This should begin immediately (within the first 24 hours of hospitalisation). Prompt and aggressive support has been shown to lower complication rates. Baseline and repeated monitoring of albumin, prealbumin, transgerrin, blood urea nitrogen, and triglycerides should be performed to ensure the patient is receiving adequate nutrition.

Wound care is also an important concern. Advanced wound dressings have replaced wet-to-dry dressings. These dressings promote granulation tissue formation and speed healing. Advanced wound dressings may lend to healing or prepare the wound bed for grafting. A healthy wound bed increases the chances of split-thickness skin graft take. Vacuum-assisted closure (VAC) was recently reported to be effective in a patient whose cardiac status was too precarious to undergo a long surgical reconstruction operation. With the VAC, the patient’s wound decreased in size, and the VAC was thought to aid in local management of infection and improve granulation tissue.

Text D
Advice to give the patient before discharge
- Help arrange the patient’s aftercare, including home health care and instruction regarding wound management, social services to promote adjustment to lifestyle changes and financial concerns, and physical therapy sessions to help rebuild strength and promote the return to optimal physical health.
- The life-threatening nature of NF, scarring caused by the disease, and in some cases the need for limb amputation can alter the patient’s attitude and viewpoint, so be sure to take a holistic approach when dealing with the patient and family.

Remind the diabetic patient to
- Control blood glucose levels, keeping the glycated haemoglobin (HbA1c) level to 7% or less.
- Keep needles capped until use and not to reuse needles.
- Clean the skin thoroughly before blood glucose testing or insulin injection, and to use alcohol pads to clean the area afterward.
Necrotizing Fasciitis (NF): Questions

Questions 1 – 7

For each question, 1 – 7, decide which texts (A, B, C or D) the information comes from. You may use any letter more than once.

In which text can you find information about

1. the drug treatment required? .................................................................

2. which parts of the body can be affected? ...........................................

3. the various ways calories can be introduced? ...................................

4. who to contact to help the patient after they leave hospital? ...............

5. what kind of dressing to use? ............................................................... 

6. how long to give drug therapy to the patient? .....................................

7. what advice to give the patient regarding needle use? ......................
Questions 8 – 14

Answer each of the questions, 8 – 14, with a word or short phrase from one of the texts. Each answer may include words, numbers or both.

Patients at increased risk of Necrotizing Fasciitis (NF):

8. Which two drugs can you use to treat the clostridium species of pathogen?

9. Which common metabolic condition may occur with NF?

10. What complication can a patient suffer from if NF isn’t treated quickly enough?

11. What procedure can you use with a wound if the patient can’t be operated on?

12. What should the patient be told to use to clean an injection site?

13. Which two drugs can be used if you can’t use vancomycin?

14. What kind of infection should you use tetracyclines for?
Questions 15 – 20

Complete each of the sentences, 15 – 20, with a word or short phrase from one of the texts. Each answer may include words, numbers or both.

15. The average proportion of patients who die as a result of contracting NF is

16. Patients who have eaten .................................................. may be infected with Aeromonas hydrophilia.

17. Patients with Type 2 infection usually present with infected ..........................................

18. Type 1 NF is also known as ..............................................

19. The patient needs to be aware of the need to keep glycated haemoglobin levels lower than ..........................................

20. The patient will need a course of ........................................... to regain fitness levels after returning home.

END OF PART A

THIS QUESTION PAPER WILL BE COLLECTED
Part B

In this part of the test, there are six short extracts relating to the work of health professionals. For **questions 1 – 6**, choose answer (A, B or C) which you think fits best according to the text.

1. The policy document tells us that
   A. stop dates aren’t relevant in all circumstances.
   B. anyone using EPMA can disregard the request for a stop date.
   C. prescribers must know in advance of prescribing what the stop date should be.

**Prescribing stop dates**

Prescribers should write a review date or a stop date on the electronic prescribing system EPMA or the medicine chart for each antimicrobial agent prescribed. On the EPMA, there is a forced entry for stop dates on oral antimicrobials. There is not a forced stop date on EPMA for IV antimicrobial treatment – if the prescriber knows how the course of IV should be, then the stop date can be filled in. If not known, then a review should be added to the additional information, e.g. ‘review after 48 hrs’. If the prescriber decides treatment needs to continue beyond the stop date or course length indicated, then it is their responsibility to amend the chart. In critical care, it has been agreed that the routine use of review/stop dates on the charts is not always appropriate.
2. The guidelines inform us that personalised equipment for radiotherapy
   A. is advisable for all patients.
   B. improves precision during radiation.
   C. needs to be tested at the first consultation.

Guidelines: Radiotherapy Simulation Planning Appointment

The initial appointment may also be referred to as the Simulation Appointment. During this appointment you will discuss your patient’s medical history and treatment options, and agree on a radiotherapy treatment plan. The first step is usually to take a CT scan of the area requiring treatment. The patient will meet the radiation oncologist, their registrar and radiation therapists. A decision will be made regarding the best and most comfortable position for treatment, and this will be replicated daily for the duration of the treatment. Depending on the area of the body to be treated, personalised equipment such as a face mask may be used to stabilise the patient’s position. This equipment helps keep the patient comfortable and still during the treatment and makes the treatment more accurate.
3. The purpose of these instructions is to explain how to
   A. monitor an ECG reading.
   B. position electrodes correctly.
   C. handle an animal during an ECG procedure.

<table>
<thead>
<tr>
<th>CT200CV Veterinarian Electrocardiogram User Manual</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Animal connections</strong></td>
</tr>
<tr>
<td>Good electrode connection is the most important factor in recording a high quality ECG. By following a few basic steps, consistent, clean recordings can be achieved.</td>
</tr>
<tr>
<td>1. Shave a patch on each forelimb of the animal at the contact site.</td>
</tr>
<tr>
<td>2. Clean the electrode sites with an alcohol swab or sterilising agent.</td>
</tr>
<tr>
<td>3. Attach clips to the ECG leads.</td>
</tr>
<tr>
<td>4. Place a small amount of ECG electrode gel on the metal electrode of the limb strap or adapter clip.</td>
</tr>
<tr>
<td>5. Pinch skin on animal and place clips on the shaved skin area of the animal being tested. The animal must be kept still</td>
</tr>
<tr>
<td>6. Check the LCD display for a constant heart reading.</td>
</tr>
<tr>
<td>7. If there is no heart reading, you have a contact problem with one or more of the leads.</td>
</tr>
<tr>
<td>8. Recheck the leads and reapply the clips to the shaven skin of the animal.</td>
</tr>
</tbody>
</table>
4. The group known as ‘impatient patients’ are more likely to continue with a course of prescribed medication if
   A. their treatment can be completed over a reduced period of time.
   B. it is possible to link their treatment with a financial advantaged.
   C. its short-term benefits are explained to them.

Medication adherence and impatient patients
A recent article addressed the behaviour of people who have ‘a taste for the present rather than the future’. It proposed that these so-called ‘impatient patients’ are unlikely to adhere to medications that require use over an extended period. The article proposes that, an ‘impatience genotype’ exists and that assessing these patients’ view of the future while stressing the immediate advantaes of adherence may improve adherence rates more than emphasising potentially distant complications. The authors suggest that rather than attempting to change the character of these who are ‘impatient’, it may be wise to ascertain the patient’s individual priorities, particularly as they relate to immediate gains. For example, while advising an ‘impatient’ patient with diabetes, stressing improvement in visual acuity rather than avoidance of retinopathy may result in greater medication adherence rates. Additionally, linking the cost of frequently changing prescription lenses when visual acuity fluctuates with glycemic levels may sometimes provide the patient with an immediate financial motivation for improving adherence.
5. The memo reminds nursing staff to avoid
   A. x-raying a patient unless pH readings exceed 5.5.
   B. the use of a particular method of testing pH levels.
   C. reliance on pH testing in patients taking acid-inhibiting medication.

<table>
<thead>
<tr>
<th>Checking the position of a nasogastric tube</th>
</tr>
</thead>
<tbody>
<tr>
<td>It is essential to confirm the position of the tube in the stomach by one of the following:</td>
</tr>
<tr>
<td>• Testing pH of aspirate: gastric placement is indicated by a pH of less than 4, but may increase to between pH 4 – 6 if the patient is receiving acid-inhibiting drugs. Blue litmus paper is insufficiently sensitive to adequately distinguish between levels of acidity of aspirate.</td>
</tr>
<tr>
<td>• X-rays: will only confirm position at the time the X-ray is carried out. The tube may have moved by the time the patient has returned to the ward. In the absence of a positive aspirate test, where pH readings are more than 5.5, or in a patient who is unconscious or on a ventilator, an X-ray must be obtained to confirm the initial position of the nasogastric tube.</td>
</tr>
</tbody>
</table>
6. This extract informs us that
   A. the amount of oxytocin given will depend on how the patient reacts.
   B. the patient will go into labour as soon as oxytocin is administered.
   C. the staff should inspect the oxytocin pump before use.

**Extract from guidelines: Oxytocin**

1. **Oxytocin Dosage and Administration**
   Parenteral drug products should be inspected visually for particulate matter and discoloration proper ro administration, whenever solution and container permit. Dosage of Oxytocin is determined by the uterine response. The dosage information below is based upon various regimens and indications in general use.

   **1.1 Induction of Stimulation of Labour**
   Intravenous infusion (drip method) is the only acceptable method of administration for the induction or stimulation of labour. Accurate control of the rate of infusion flow is essential. An infusion pump or other such device and frequent monitoring of strength of contractions and foetal heart rate are necessary for the safe administration of Oxytocin for the induction or stimulation of labour. If uterine contractions become too powerful, the infusion can be abruptly stopped, and oxytocic stimulation of the uterine musculature will soon wane.
Part C

In this part of the test, there are two texts about different aspects of healthcare. For questions 7 – 22, choose the answer (A, B, C or D) which you think fits best according to the text.

Text 1: Phobia pills

An irrational fear, or phobia, can cause the heart to pound and the pulse to race. It can lead to a full-blown panic attack — and yet the sufferer is not in any real peril. All it takes is a glimpse of, for example, a spider's web for the mind and body to race into panicked overdrive. These fears are difficult to conquer, largely because, although there are no treatment guidelines specifically about phobias, the traditional way of helping the sufferer is to expose them to the fear numerous times. Through the cumulative effect of these experiences, sufferers should eventually feel an increasing sense of control over their phobia. For some people, the process is too protracted, but there may be a short cut. Drugs that work to boost learning may help someone with a phobia to 'detrain' their brain, losing the fearful associations that fuel the panic.

The brain's extraordinary ability to store new memories and forge associations is so well celebrated that its dark side is often disregarded. A feeling of contentment is easily evoked when we see a photo of loved ones, though the memory may sometimes be more idealised than exact. In the case of a phobia, however, a nasty experience with, say, spiders, that once triggered a panicked reaction, leads the feelings to resurge whenever the relevant cue is seen again. The current approach is exposure therapy, which uses a process called extinction learning. This involves people being gradually exposed to whatever triggers their phobia until they feel at ease with it. As the individual becomes more comfortable with each situation, the brain automatically creates a new memory — one that links the cue with reduced feelings of anxiety, rather than the sensations that mark the onset of a panic attack.

Unfortunately, while it is relatively easy to create a fear-based memory, expunging that fear is more complicated. Each exposure trial will involve a certain degree of distress in the patient, and although the process is carefully managed throughout to limit this, some psychotherapists have concluded that the treatment is unethical. Neuroscientists have been looking for new ways to speed up extinction learning for that same reason.

One such avenue is the use of 'cognitive enhancers' such as a drug called D-cycloserine or DCS. DOS slots into part of the brain's NMDA receptor' and seems to modulate the neurons' ability to adjust their signalling in response to events. This tuning of a neuron's firing is thought to be one of the key ways the brain stores memories, and, at very low doses, DOS appears to boost that process, improving our ability to learn. In 2004, a team from Emory University in Atlanta, USA, tested whether DCS could also help people with phobias. A pilot
trial was Conducted on 28 people undergoing specific exposure therapy for acrophobia — a fear of heights. Results showed that those given a small amount of DCS alongside their regular therapy were able to reduce their phobia to a greater extent than those given a placebo. Since then, other groups have replicated the finding in further trials.

For people undergoing exposure therapy, achieving just one of the steps on the long journey to overcoming their fears requires considerable perseverance, says Cristian Sirbu, a behavioural scientist and psychologist. Thanks to improvement being so slow, patients -often already anxious - tend to feel they have failed. But Sirbu thinks that DOS may make it possible to tackle the problem in a single 3-hour session, which is enough for the patient to make real headway and to leave with a feeling of satisfaction. However, some people have misgivings about this approach, claiming that as it doesn't directly undo the fearful response which is deep-seated in the memory, there is a very real risk of relapse.

Rather than simply attempting to overlay the fearful associations with new ones, Merel Kindt at the University of Amsterdam is instead trying to alter the associations at source. Kindt’s studies into anxiety disorders are based on the idea that memories are not only vulnerable to alteration when they’re first laid down, but, of key importance, also at later retrieval. This allows for memories to be ‘updated’, and these amended memories are re-consolidated by the effect of proteins which alter synaptic responses, thereby maintaining the strength of feeling associated with the original memory. Kindt’s team has produced encouraging results with arachnophobic patients by giving them propranolol, a well-known and well-tolerated beta-blocker drug, while they looked at spiders. This blocked the effects of norepinephrine in the brain, disrupting the way the memory was put back into storage after being retrieved, as part of the process of reconsolidation. Participants reported that while they still don’t like spiders, they were able to approach them. Kindt reports that the benefit was still there three months after the test ended.
Text 1: Questions 7 – 14

7. In the first paragraph, the writer says that conventional management of phobias can be problematic because of

A. the lasting psychological effects of the treatment.
B. the time required to identify the cause of the phobia.
C. the limited choice of therapies available to professionals.
D. the need for the phobia to be confronted repeatedly over time.

8. In the second paragraph, the writer uses the phrase ‘dark side’ to reinforce the idea that

A. memories of agreeable events tend to be inaccurate.
B. positive memories can be negatively distorted over time.
C. unhappy memories are often more detailed than happy ones.
D. unpleasant memories are aroused in response to certain prompts.

9. In the second paragraph, extinction learning is explained as a process which

A. makes use of an innate function of the brain.
B. encourages patients to analyse their particular fears.
C. shows patients how to react when having a panic attack.
D. focuses on a previously little-understood part of the brain.

10. What does the phrase ‘for that same reason’ refer to?

A. The anxiety that patients feel during therapy.
B. Complaints from patients who feel unsupported.
C. The conflicting ethical concerns of neuroscientists.
D. Psychotherapists who take on unsuitable patients.
11. In the fourth paragraph, we learn that the drug called DCS

   A. is unsafe to use except in small quantities.
   B. helps to control only certain types of phobias.
   C. affects how neurons in the brain react to stimuli.
   D. increases the emotional impact of certain events.

12. In the fifth paragraph, some critics believe that one drawback of using DCS is that

   A. its benefits are likely to be of limited duration.
   B. it is only helpful for certain types of personality.
   C. few patients are likely to complete the course of treatment.
   D. patients feel discouraged by their apparent lack of progress.

13. In the final paragraph, we learn that Kindt’s studies into anxiety disorders focused on how

   A. proteins can affect memory retrieval.
   B. memories are superimposed on each other.
   C. negative memories can be reduced in frequency.
   D. the emotional force of a memory is naturally retained.

14. The writer suggests that propranolol may

   A. not offer a permanent solution for patients’ phobias.
   B. increase patients’ tolerance of key triggers.
   C. produce some beneficial side effects.
   D. be inappropriate for certain phobias.
Text 2: Challenging medical thinking on placebos

Dr Damien Finniss, Associate Professor at Sydney University's Pain Management and Research Institute, was previously a physiotherapist. He regularly treated football players during training sessions using therapeutic ultrasound. One particular session, Finniss explains, 'I treated five or six athletes. I'd treat them for five or ten minutes and they'd say, "I feel much better" and run back onto the field. But at the end of the session, I realised the ultrasound wasn't on.' It was a light bulb moment that set Finniss on the path to becoming a leading researcher on the placebo effect.

Used to treat depression, psoriasis and Parkinson's, to name but a few, placebos have an image problem among medics. For years, the thinking has been that a placebo is useless unless the doctor convinces the patient that it's a genuine treatment — problematic for a profession that promotes informed consent. However, a new study casts doubt on this assumption and, along with a swathe of research showing some remarkable results with placebos, raises questions about whether they should now enter the mainstream as legitimate prescription items. The study examined five trials in which participants were told they were getting a placebo, and the conclusion was that doing so honestly can work.

'If the evidence is there, I don't see the harm in openly administering a placebo,' says Ben Colagiuri, a researcher at the University of Sydney. Colagiuri recently published a meta-analysis of thirteen studies which concluded that placebo sleeping pills, whose genuine counterparts notch up nearly three million prescriptions in Australia annually, significantly improve sleep quality. The use of placebos could therefore reduce medical costs and the burden of disease in terms of adverse reactions.

But the placebo effect isn't just about fake treatments. It's about raising patients' expectations of a positive result; something which also occurs with real drugs. Finniss cites the 'open-hidden' effect, whereby an analgesic can be twice as effective if the patient knows they're getting it, compared to receiving it unknowingly. 'Treatment is always part medical and part ritual,' says Finniss. This includes the austere consulting room and even the doctor's clothing. But behind the performance of healing is some strong science. Simply believing an analgesic will work activates the same brain regions as the genuine drug. 'Part of the outcome of what we do is the way we interact with patients,' says Finniss.

That interaction is also the focus of Colagiuri's research. He's looking into the 'nocebo' effect, when a patient's pessimism about a treatment becomes self-fulfilling. 'If you give a placebo, and warn only 50% of the patients about side effects, those you warn report more side effects,' says Colagiuri. He's aiming to reverse that by exploiting the psychology of food packaging. Products are labelled '98% fat-free' rather than '2% fat' because positive reference to the word 'fat' puts consumers off. Colagiuri is deploying similar tactics. A drug with a 30% chance of causing a side effect can be reframed as having a 70% chance of not
causing it. 'You're giving the same information, but framing it a way that minimises negative expectations,' says Colagiuri.

There is also a body of research showing that a placebo can produce a genuine biological response that could affect the disease process itself. It can be traced back to a study from the 1970s, when psychologist Robert Ader was trying to condition taste-aversion in rats. He gave them a saccharine drink whilst simultaneously injecting Cytoxan, an immune-suppressant which causes nausea. The rats learned to hate the drink due to the nausea. But as Ader continued giving it to them, without Cytoxan, they began to die from infection. Their immune system had 'learned' to fail by repeated pairing of the drink with Cytoxan. Professor Andrea Evers of Leiden University is running a study that capitalises on this conditioning effect and may benefit patients with rheumatoid arthritis, which causes the immune system to attack the joints. Evers' patients are given the immunosuppressant methotrexate, but instead of always receiving the same dose, they get a higher dose followed by a lower one. The theory is that the higher dose will cause the body to link the medication with a damped-down immune system. The lower dose will then work because the body has 'learned' to curb immunity as a placebo response to taking the drug. Evers hopes it will mean effective drug regimes that use lower doses with fewer side effects.

The medical profession, however, remains less than enthusiastic about placebos. 'I'm one of two researchers in the country who speak on placebos, and I've been invited to lecture at just one university,' says Finniss. According to Charlotte Blease, a philosopher of science, this antipathy may go to the core of what it means to be a doctor. 'Medical education is largely about biomedical facts. 'Softer' sciences, such as psychology, get marginalised because it's the hard stuff that's associated with what it means to be a doctor.' The result, says Blease, is a large, placebo-shaped hole in the medical curriculum. 'There's a great deal of medical illiteracy about the placebo effect ... it's the science behind the art of medicine. Doctors need training in that.'
Text 2: Questions 15 – 22

15. A football training session sparked Dr Finniss’ interest in the placebo effect because
   A. he saw for himself how it could work in practice.
   B. he took the opportunity to try out a theory about it.
   C. he made a discovery about how it works with groups.
   D. he realised he was more interested in research than treatment.

16. The writer suggests that doctors should be more willing to prescribe placebos now because
   A. research indicates that they are effective even without deceit.
   B. recent studies are more reliable than those conducted in the past.
   C. they have been accepted as a treatment by many in the profession.
   D. they have been shown to relieve symptoms in a wide range of conditions.

17. What is suggested about sleeping pills by the use of the verb ‘notch up’?
   A. They may have negative results.
   B. They could easily be replaced.
   C. They are extremely effective.
   D. They are very widely used.

18. What point does the writer make in the fourth paragraph?
   A. The way a treatment is presented is significant even if it is a placebo.
   B. The method by which a drug is administered is more important than its content.
   C. The theatrical side of medicine should not be allowed to detract from the science.
   D. The outcome of a placebo treatment is affected by whether the doctor believes in it.
19. In researching side effects, Colaguiri aims to

A. discover whether placebos can cause them.
B. reduce the number of people who experience them.
C. make information about them more accessible to patients.
D. investigate whether pessimistic patients are more likely to suffer from them.

20. What does the word ‘it’ in the sixth paragraph refer to?

A. A placebo treatment.
B. The disease process itself.
C. A growing body of research.
D. A genuine biological response.

21. What does the writer tell us about Ader’s and Evers’ studies?

A. Both involve gradually reducing the dosage of a drug.
B. Evers is exploiting a response which Ader discovered by chance.
C. Both examine the side effects caused by immunosuppressant drugs.
D. Evers is investigating whether the human immune system reacts to placebos as Ader’s rats did.

22. According to Charlotte Blease, placebos are omitted from medical training because

A. there are so many practical subjects which need to be covered.
B. those who train doctors do not believe that they work.
C. they can be administered without specialist training.
D. their effect is more psychological than physical.

END OF READING TEST
READING SUB-TEST - ANSWER KEY

PART A: QUESTIONS 1 – 20

1. B
2. A
3. C
4. D
5. C
6. B
7. D
8. clindamycin (and) penicillin
9. diabetes mellitus
10. septic shock
11. VAC / vacuum-assisted closure
12. alcohol pads
13. daptomycin (and) linezolid
14. vibrio (infection)
15. 32.2%
16. seafood
17. limbs
18. polymicrobial
19. 7%
20. physical therapy
PART B: QUESTIONS 1 – 6

1. A – stop dates aren’t relevant in all circumstances.
4. C – its short-term benefits are explained to them.
5. B – the use of a particular method of testing pH levels.
6. A – the amount of oxytocin given will depend on how the patient reacts.

PART C: QUESTIONS 7 – 14

7. D – the need for the phobia to be confronted repeatedly over time.
8. D – unpleasant memories are aroused in response to certain prompts.
10. A – the anxiety that patients feel during therapy.
11. C – affects how neurons in the brain react to stimuli.
12. A – its benefits are likely to be of limited duration.
13. D – the emotional force of a memory is naturally retained.
14. B – increase patients’ tolerance of key triggers.

PART C: QUESTIONS 15 – 22

15. A – he saw for himself how it could work in practice.
16. A – research indicates that they are effective even without deceit.
17. D – they are very widely used.
18. A – the way a treatment is presented is significant even if it is a placebo.
20. C – a growing body of research.
21. B – Evers is exploiting a response which Ader discovered by chance.
22. D – their effect is more psychological than physical.
Practice Test 4.
Occupational English Test

Reading Test

Part A

TIME: 15 minutes

- Look at the four texts, A – D, on the following pages.
- For each question, 1 – 20, look through the texts, A – D, to find the relevant information.
- Write your answers on the spaces provided in the Question Paper.
- Answer all the questions within the 15-minute time limit.
- Your answers should be correctly spelt.
Fractures, dislocations and sprains: Texts

Text A

Fractures (buckle or break in the bone) often occur following direct or indirect injury, e.g. twisting, violence to bones. Clinically, fractures are either:
- closed, where the skin is intact, or
- compound, where there is a break in the overlying skin

Dislocation is where a bone is completely displaced from the joint. It often results from injuries away from the affected joint, e.g. elbow dislocation after falling on an outstretched hand.

Sprain is a partial disruption of a ligament or capsule of a joint.

Text B

Simple Fracture of Limbs

Immediate management:
- Halt any external haemorrhage by pressure bandage or direct pressure
- Immobilise the affected area
- Provide pain relief

Clinical assessment:
- Obtain complete patient history, including circumstances and method of injury
  - medication history – enquire about anticoagulant use, e.g. warfarin
- Perform standard clinical observations. Examine and record:
  - colour, warmth, movement, and sensation in hands and feet of injured limb(s)
- Perform physical examination
  Examine:
  - all places where it is painful
  - any wounds or swelling
  - colour of the whole limb (especially paleness or blue colour)
  - the skin over the fracture
  - range of movement
  - joint function above and below the injury site
- Check whether:
  - the limb is out of shape – compare one side with the other
  - the limb is warm
  - the limb (if swollen) is throbbing or getting bigger
  - peripheral pulses are palpable

Management:
- Splint the site of the fracture/dislocation using a plaster backslab to reduce pain
- Elevate the limb – a sling for arm injuries, a pillow for leg injuries
- If in doubt over an injury, treat as a fracture
- Administer analgesia to patients in severe pain. If not allergic, give morphine (preferable); if allergic to morphine, use fentanyl
- Consider compartment syndrome where pain is severe and unrelieved by splinting and elevation or two doses of analgesia
- X-ray if available
**Text C**

**Drug Therapy Protocol:**
Authorised Indigenous Health Worker (IHW) must consult Medical Officer (MO) or Nurse Practitioner (NP). Scheduled Medicines Rural & Isolated Practice Registered Nurse may proceed.

<table>
<thead>
<tr>
<th>Drug</th>
<th>Form</th>
<th>Strength</th>
<th>Route of administration</th>
<th>Recommended dosage</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Morphine</td>
<td>Ampoule</td>
<td>10mg/mL</td>
<td>IM/SC</td>
<td>Adult only: 0.1 – 0.2 mg/kg to a max of 10mg</td>
<td>Stat</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>IV (IHW may not administer IV)</td>
<td>Adult only: Initial dose of 2mg then 0.5-1mg increments slowly, repeated every 3 -5 minutes if required to a max. of 10mg</td>
<td>Further doses on MP/NP order</td>
</tr>
</tbody>
</table>

Use the lower end of dose range in patients ≥ 70 years.
Provider Consumer Medicine Information: advise can cause nausea and vomiting, drowsiness.
Respiratory depression is rare – if it should occur, give naloxone.

**Text D**

**Technique for plaster backslab for arm fractures – use same principle for leg fractures**

1. Measure a length of non-compression cotton stockinette from half way up the middle finger to just below the elbow. Width should be 2-3cm more than the width of the distal forearm.
2. Wrap cotton padding over top for the full length of the stockinette – 2 layers, 50% overlap.
3. Measure a length of plaster of Paris 1cm shorter than the padding/stockinette at each end. Fold the roll in about ten layers to the same length.
4. Immerse the layered plaster in a bowl of room temperature water, holding on to each end. Gently squeeze out the excess water.
5. Ensure any jewellery is removed from the injured limb.
6. Lightly mould the slab to the contours of the arm and hand in a neutral position.
7. Do not apply pressure over bony prominences. Extra padding can be placed over bony prominences if applicable.
8. Wrap crepe bandage firmly around plaster backslab.
Fractures, dislocations and sprains: Questions

Questions 1 – 7

For each question, 1 – 7, decide which texts (A, B, C or D) the information comes from. You may use any letter more than once.

In which text can you find information about

1. procedures for delivering pain relief?

2. the procedure to follow when splinting a fractured limb?

3. what to record when assessing a patient?

4. the terms used to describe different types of fractures?

5. the practitioners who administer analgesia?

6. what to look for when checking an injury?

7. how fractures can be caused?
Questions 8 – 15

Answer each of the questions, 8 – 15, with a word or short phrase from one of the texts. Each answer may include words, numbers or both.

8. What should be used to elevate a patient’s fractured leg?

9. What is the maximum dose of morphine per kilo of a patient’s weight that can be given using the intra-muscular (IM) route?

10. Which parts of a limb may need extra padding?

11. What should be used to treat a patient who suffers respiratory depression?

12. What should be used to cover a freshly applied plaster backslab?

13. What analgesic should be given to a patient who is allergic to morphine?

14. What condition might a patient have if severe pain persists after splinting, elevation and repeated analgesia?
Questions 15 – 20

Complete each of the sentences, 15 – 20, with a word or short phrase from one of the texts. Each answer may include words, numbers or both.

15. Falling on an outstretched hand is a typical cause of a ........................................ of the elbow.

16. Upper limb fractures should be elevated by means of a ..........................................

17. Make sure the patient isn’t wearing any ........................................ on the part of the body where the plaster backslab is going to be placed.

18. Check to see whether swollen limbs are ........................................ or increasing in size.

19. In a plaster backslab, there is a layer of ........................................ closest to the skin.

20. Patients aged ........................................ and over shouldn’t be given the higher dosages of pain relief.

END OF PART A

THIS QUESTION PAPER WILL BE COLLECTED
Part B

In this part of the test, there are six short extracts relating to the work of health professionals. For questions 1 – 6, choose answer (A, B or C) which you think fits best according to the text.

1. The manual informs us that the Blood Pressure Monitor
   A. is likely to interfere with the operation of other medical equipment.
   B. may not work correctly in close proximity to some other devices.
   C. should be considered safe to use in all hospital environments.

**Instruction Manual: Digital Automatic Blood Pressure Monitor**

**Electromagnetic Compatibility (EMC)**

With the increased use of portable electronic devices, medical equipment may be susceptible to electromagnetic interference. This may result in incorrect operation of the medical device and create a potentially unsafe situation. In order to regulate the requirements for EMC, with the aim of preventing unsafe product situations, the EN60601-1-2 standard defines the levels of immunity to electromagnetic interferences as well as maximum levels of electromagnetic emissions for medical devices. This medical device conforms to EN60601-1-2:2001 for both immunity and emissions. Nevertheless, care should be taken to avoid the use of the monitor within 7 metres of cellphones or other devices generating strong electrical or electromagnetic fields.
2. The notice is giving information about
   
   A. ways of checking that an NG tube has been placed correctly.
   
   B. how the use of NG feeding tubes is authorised.
   
   C. which staff should perform NG tube placement.

**NG feeding tubes**

Displacement of nasogastric (NG) feeding tubes can have serious implications if undetected. Incorrectly positioned tubes leave patients vulnerable to the risks of regurgitation and respiratory aspiration. It is crucial to differentiate between gastric and respiratory placement on initial insertion to prevent potentially fatal pulmonary complications. Insertion and care of an NG tube should therefore only be carried out by a registered doctor or nurse who has undergone theoretical and practical training and is deemed competent or is supervised by someone competent. Assistant practitioners and other unregistered staff must never insert NG tubes or be involved in the initial confirmation of safe NG tube position.
3. What must all staff involved in the transfusion process do?
   
   A. Check that their existing training is still valid.
   B. Attend a course to learn about new procedures.
   C. Read a document that explains changes in policy.

'Right Patient, Right Blood' Assessments

The administration of blood can have significant morbidity and mortality. Following the introduction of the 'Right Patient, Right Blood' safety policy, all staff involved in the transfusion process must be competency assessed. To ensure the safe administration of blood components to the intended patient, all staff must be aware of their responsibilities in line with professional standards.

Staff must ensure that if they take any part in the transfusion process, their competency assessment is updated every three years. All staff are responsible for ensuring that they attend the mandatory training identified for their roles. Relevant training courses are clearly identified in Appendix 1 of the Mandatory Training Matrix.
4. The guidelines establish that the healthcare professional should
   A. aim to make patients fully aware of their right to a chaperone.
   B. evaluate the need for a chaperone on a case-by-case basis.
   C. respect the wishes of the patient above all else.

<table>
<thead>
<tr>
<th>Extract from ‘Chaperones: Guidelines for Good Practice’</th>
</tr>
</thead>
<tbody>
<tr>
<td>A patient may specifically request a chaperone or in certain circumstances may nominate one, but it will not always be the case that a chaperone is required. It is often a question of using professional judgement to assess an individual situation. If a chaperone is offered and declined, this must be clearly documented in the patient’s record, along with any relevant discussion. The chaperone should only be present for the physical examination and should be in a position to see what the healthcare professional undertaking the examination/investigation is doing. The healthcare professional should wait until the chaperone has left the room/cubicle before discussion takes place on any aspect of the patient’s care, unless the patient specifically requests the chaperone to remain.</td>
</tr>
</tbody>
</table>
5. The guidelines require those undertaking a clinical medication review to
   A. involve the patient in their decisions.
   B. consider the cost of any change in treatments.
   C. recommend other services as an alternative to medication.

Annual medication review

To give all patients an annual medication review is an ideal to strive for. In the meantime there is an argument for targeting all clinical medication reviews to those patients likely to benefit most.

Our guidelines state that ‘at least a level 2 medication review will occur’, i.e. the minimum standard is a treatment review of medicines with the full notes but not necessarily with the patient present. However, the guidelines go on to say that ‘all patients should have the chance to raise questions and highlight problems about their medicines’ and that ‘any changes resulting from the review are agreed with the patient’.

It also states that GP practices are expected to
   - minimise waste in prescribing and avoid ineffective treatments.
   - engage effectively in the prevention of ill health.
   - avoid the need for costly treatments by proactively managing patients to recovery through the whole care pathway.
6. The purpose of this email is to
   A. report on a rise in post-surgical complications.
   B. explain the background to a change in patient care.
   C. remind staff about procedures for administering drugs.

| To: All staff |
| Subject: Advisory Email: Safe use of opioids |
| In August, an alert was issued on the safe use of opioids in hospitals. This reported the incidence of respiratory depression among post-surgical patients to an average 0.5% – thus for every 5,000 surgical patients, 25 will experience respiratory depression. Failure to recognise respiratory depression and institute timely intervention can lead to cardiopulmonary arrest, resulting in brain injury or death. A retrospective multi-centre study of 14,720 cardiopulmonary arrest cases showed that 44% were respiratory related and more than 35% occurred on the general care floor. It is therefore recommended that post-operative patients now have continuous monitoring, instead of spot checks, of both oxygenation and ventilation. |
Part C

In this part of the test, there are two texts about different aspects of healthcare. For questions 7 – 22, choose the answer (A, B, C or D) which you think fits best according to the text.

Text 1: Sleep deprivation

Millions of people who suffer sleep problems also suffer myriad health burdens. In addition to emotional distress and cognitive impairments, these can include high blood pressure, obesity, and metabolic syndrome. ‘In the studies we’ve done, almost every variable we measured was affected. There’s not a system in the body that’s not affected by sleep,’ says University of Chicago sleep researcher Eve Van Cauter. ‘Every time we sleep-deprive ourselves, things go wrong.’

A common refrain among sleep scientists about two decades ago was that sleep was performed by the brain in the interest of the brain. That wasn’t a fully elaborated theory, but it wasn’t wrong. Numerous recent studies have hinted at the purpose of sleep by confirming that neurological function and cognition are messed up during sleep loss, with the patient’s reaction time, mood, and judgement all suffering if they are kept awake too long.

In 1997, Bob McCarley and colleagues at Harvard Medical School found that when they kept cats awake by playing with them, a compound known as adenosine increased in the basal forebrain as the sleepy felines stayed up longer, and slowly returned to normal levels when they were later allowed to sleep. McCarley’s team also found that administering adenosine to the basal forebrain acted as a sedative, putting animals to sleep. It should come as no surprise then that caffeine, which blocks adenosine’s receptor, keeps us awake. Teaming up with Basheer and others, McCarley later discovered that, as adenosine levels rise during sleep deprivation, so do concentrations of adenosine receptors, magnifying the molecule’s sleep-inducing effect. ‘The brain has cleverly designed a two-stage defence against the consequences of sleep loss,’ McCarley says. Adenosine may underlie some of the cognitive deficits that result from sleep loss. McCarley and colleagues found that infusing adenosine into rats’ basal forebrain impaired their performance on an attention test, similar to that seen in sleep-deprived humans. But adenosine levels are by no means the be-all and end-all of sleep deprivation’s effects on the brain or the body.

Over a century of sleep research has revealed numerous undesirable outcomes from staying awake too long. In 1999, Van Cauter and colleagues had eleven men sleep in the university lab. For three nights, they spent eight hours in bed, then for six nights they were allowed only four hours (accruing what Van Cauter calls a sleep debt), and then for six nights they could sleep for up to twelve hours (sleep recovery). During sleep debt and recovery,
researchers gave the participants a glucose tolerance test and found striking differences. While sleep deprived, the men’s glucose metabolism resembled a pre-diabetic state. ‘We knew it would be affected,’ says Van Cauter. ‘The big surprise was the effect being much greater than we thought.

Subsequent studies also found insulin resistance increased during bouts of sleep restriction, and in 2012, Van Cauter’s team observed impairments in insulin signalling in subjects’ fat cells. Another recent study showed that sleep-restricted people will add 300 calories to their daily diet. Echoing Van Cauter’s results, Basheer has found evidence that enforced lack of sleep sends the brain into a catabolic, or energy-consuming, state. This is because it degrades the energy molecule adenosine triphosphate (ATP) to produce adenosine monophosphate and this results in the activation of AMP kinase, an enzyme that boosts fatty acid synthesis and glucose utilization. ‘The system sends a message that there’s a need for more energy,’ Basheer says. Whether this is indeed the mechanism underlying late-night binge-eating is still speculative.

Within the brain, scientists have glimpsed signs of physical damage from sleep loss, and the time-line for recovery, if any occurs, is unknown. Chiara Cirelli’s team at the Madison School of Medicine in the USA found structural changes in the cortical neurons of mice when the animals are kept awake for long periods. Specifically, Cirelli and colleagues saw signs of mitochondrial activation – which makes sense, as ‘neurons need more energy to stay awake,’ she says – as well as unexpected changes, such as undigested cellular debris, signs of cellular aging that are unusual in the neurons of young, healthy mice. ‘The number [of debris granules] was small, but it’s worrisome because it’s only four to five days’ of sleep deprivation,’ says Cirelli. After thirty-six hours of sleep recovery, a period during which she expected normalcy to resume, those changes remained.

Further insights could be drawn from the study of shift workers and insomniacs, who serve as natural experiments on how the human body reacts to losing out on such a basic life need for chronic periods. But with so much of our physiology affected, an effective therapy – other than sleep itself – is hard to imagine. ‘People like to define a clear pathway of action for health conditions,’ says Van Cauter. ‘With sleep deprivation, everything you measure is affected and interacts synergistically to produce the effect.’
Text 1: Questions 7 – 14

7. In the first paragraph, the writer uses Eve Van Cauter’s words to
   A. explain the main causes of sleep deprivation.
   B. reinforce a view about the impact of sleep deprivation.
   C. question some research findings about sleep deprivation.
   D. describe the challenges involved in sleep deprivation research.

8. What do we learn about sleep in the second paragraph?
   A. Scientific opinion about its function has changed in recent years.
   B. There is now more controversy about it than there was in the past.
   C. Researchers have tended to confirm earlier ideas about its purpose.
   D. Studies undertaken in the past have formed the basis of current research.

9. What particularly impressed Bob McCarley of Harvard Medical School?
   A. The effectiveness of adenosine as a sedative.
   B. The influence of caffeine on adenosine receptors.
   C. The simultaneous production of adenosine and adenosine receptors.
   D. The extent to which adenosine levels fall when subjects are allowed to sleep.

10. In the third paragraph, what idea is emphasised by the phrase ‘by no means the be-all and end-all’?
    A. Sleep deprivation has consequences beyond its impact on adenosine levels.
    B. Adenosine levels are a significant factor in situations other than sleep deprivation.
    C. The role of adenosine as a response to sleep deprivation is not yet fully understood.
    D. The importance of the link between sleep deprivation and adenosine should not be underestimated.
11. What was significant about the findings in Van Cauter’s experiment?
   A. The rate at which the sleep-deprived men entered a pre-diabetic state.
   B. The fact that sleep deprivation had an influence on the men’s glucose levels.
   C. The differences between individual men with regard to their glucose tolerance.
   D. The extent of the contrast in the men’s metabolic states between sleep debt and recovery.

12. In the fifth paragraph, what does the word ‘it’ refer to?
   A. An enzyme.
   B. New evidence.
   C. A catabolic state.
   D. Enforced lack of sleep.

13. What aspect of her findings surprised Chiara Cirelli?
   A. There was no reversal of a certain effect of sleep deprivation.
   B. The cortical neurons of the mice underwent structural changes.
   C. There was evidence of an increased need for energy in the brains of the mice.
   D. The neurological response to sleep deprivation only took a few hours to become apparent.

14. In the final paragraph, the quote from Van Cauter is used to suggest that
   A. the goals of sleep deprivation research are sometimes unclear.
   B. it could be difficult to develop any treatment for sleep deprivation.
   C. opinions about the best way to deal with sleep deprivation are divided.
   D. there is still a great deal to be learnt about the effects of sleep deprivation.
Text 2: ADHD

The American Psychiatric Association (APA) recognised Attention Deficit Hyperactivity Disorder (ADHD) as a childhood disorder in the 1960s, but it wasn’t until 1978 that the condition was formally recognised as afflicting adults. In recent years, the USA has seen a 40% rise in diagnoses of ADHD in children. It could be that the disorder is becoming more prevalent, or, as seems more plausible, doctors are making the diagnosis more frequently. The issue is complicated by the lack of any recognised neurological markers for ADHD. The APA relies instead on a set of behavioural patterns for diagnosis. It specifies that patients under 17 must display at least six symptoms of inattention and/or hyperactivity; adults need only display five.

ADHD can be a controversial condition. Dr Russell Barkley, Professor of Psychiatry at the University of Massachusetts insists; ‘the science is overwhelming: it’s a real disorder, which can be managed, in many cases, by using stimulant medication in combination with other treatments’. Dr Richard Saul, a behavioural neurologist with five decades of experience, disagrees; ‘Many of us have difficulty with organization or details, a tendency to lose things, or to be forgetful or distracted. Under such subjective criteria, the entire population could potentially qualify. Although some patients might need stimulants to function well in daily life, the lumping together of many vague and subjective symptoms could be causing a national phenomenon of misdiagnosis and over-prescription of stimulants.’

A recent study found children in foster care three times more likely than others to be diagnosed with ADHD. Researchers also found that children with ADHD in foster care were more likely to have another disorder, such as depression or anxiety. This finding certainly reveals the need for medical and behavioural services for these children, but it could also prove the non-specific nature of the symptoms of ADHD: anxiety and depression, or an altered state, can easily be mistaken for manifestations of ADHD.

ADHD, the thinking goes, begins in childhood. In fact, in order to be diagnosed with it as an adult, a patient must demonstrate that they had traits of the condition in childhood. However, studies from the UK and Brazil, published in JAMA Psychiatry, are fuelling questions about the origins and trajectory of ADHD, suggesting not only that it can begin in adulthood, but that there may be two distinct syndromes: adult-onset ADHD and childhood ADHD. They echo earlier research from New Zealand. However, an editorial by Dr Stephen Faraone in JAMA Psychiatry highlights potential flaws in the findings. Among them, underestimating the persistence of ADHD into adulthood and overestimating the prevalence of adult-onset ADHD. In Dr Faraone’s words, ‘the researchers found a group of people who had sub-threshold ADHD in their youth. There may have been signs that things weren’t right, but not enough to go to a doctor. Perhaps these were smart kids with particularly supportive parents or teachers who helped them cope with attention problems. Such intellectual and social scaffolding would help in early life, but when the scaffolding is removed, full ADHD could develop’.
Until this century, adult ADHD was a seldom-diagnosed disorder. Nowadays however, it’s common in mainstream medicine in the USA, a paradigm shift apparently driven by two factors: reworked – many say less stringent – diagnostic criteria, introduced by the APA in 2013, and marketing by manufacturers of ADHD medications. Some have suggested that this new, broader definition of ADHD was fuelled, at least in part, to broaden the market for medication. In many instances, the evidence proffered to expand the definitions came from studies funded in whole or part by manufacturers. And as the criteria for the condition loosened, reports emerged about clinicians involved in diagnosing ADHD receiving money from drug-makers.

This brings us to the issue of the addictive nature of ADHD medication. As Dr Saul asserts, ‘addiction to stimulant medication isn’t rare; it’s common. Just observe the many patients periodically seeking an increased dosage as their powers of concentration diminish. This is because the body stops producing the appropriate levels of neurotransmitters that ADHD drugs replace – a trademark of addictive substances.’ Much has been written about the staggering increase in opioid overdoses and abuse of prescription painkillers in the USA, but the abuse of drugs used to treat ADHD is no less a threat. While opioids are more lethal than prescription stimulants, there are parallels between the opioid epidemic and the increase in problems tied to stimulants. In the former, users switch from prescription narcotics to heroin and illicit fentanyl. With ADHD drugs, patients are switching from legally prescribed stimulants to illicit ones such as methamphetamine and cocaine. The medication is particularly prone to abuse because people feel it improves their lives. These drugs are antidepressants, aid weight-loss and improve confidence, and can be abused by students seeking to improve their focus or academic performance. So, more work needs to be done before we can settle the questions surrounding the diagnosis and treatment of ADHD.
Text 2: Questions 15 – 22

15. In the first paragraph, the writer questions whether
   A. adult ADHD should have been recognised as a disorder at an earlier date.
   B. ADHD should be diagnosed in the same way for children and adults.
   C. ADHD can actually be indicated by neurological markers.
   D. cases of ADHD have genuinely increased in the USA.

16. What does Dr Saul object to?
   A. The suggestion that people need stimulants to cope with everyday life.
   B. The implication that everyone has some symptoms of ADHD.
   C. The grouping of imprecise symptoms into a mental disorder.
   D. The treatment for ADHD suggested by Dr Barkley.

17. The writer regards the study of children in foster care as significant because it
   A. highlights the difficulty of distinguishing ADHD from other conditions.
   B. focuses on children known to have complex mental disorders.
   C. suggests a link between ADHD and a child’s upbringing.
   D. draws attention to the poor care given to such children.

18. In the fourth paragraph, the word ‘They’ refers to
   A. syndromes.
   B. questions.
   C. studies.
   D. origins.
19. Dr Faraone suggests that the group of patients diagnosed with adult-onset ADHD
   A. had teachers or parents who recognised the symptoms of ADHD.
   B. should have consulted a doctor at a younger age.
   C. had mild undiagnosed ADHD in childhood.
   D. were specially chosen by the researchers.

20. In the fifth paragraph, it is suggested that drug companies have
   A. been overly aggressive in their marketing of ADHD medication.
   B. influenced research that led to the reworking of ADHD diagnostic criteria.
   C. attempted to change the rules about incentives for doctors who diagnose ADHD.
   D. encouraged the APA to rush through changes to the criteria for diagnosed ADHD.

21. In the final paragraph, the word ‘trademark’ refers to
   A. a physiological reaction.
   B. a substitute medication.
   C. a need for research.
   D. a common request.

22. In the final paragraph, what does the writer imply about addiction to ADHD medication?
   A. It is unlikely to turn into a problem on the scale of that caused by opioid abuse.
   B. The effects are more marked in certain sectors of the population.
   C. Insufficient attention seems to have been paid to it.
   D. The reasons for it are not yet fully understood.

END OF READING TEST
READING SUB-TEST - ANSWER KEY

PART A: QUESTIONS 1 – 20

1. C
2. D
3. B
4. A
5. C
6. B
7. A
8. (a) pillow / pillows
9. 0.2mg (/kg)
10. bony prominences
11. naloxone
12. crepe bandage
13. fentanyl
14. compartment syndrome
15. dislocation
16. sling
17. jewellery
18. throbbing
19. (cotton / non-compression) stockinette
20. 70 / seventy (years/yrs)
PART B: QUESTIONS 1 – 6

1. B – may not work correctly in close proximity to some other devices
2. C – which staff should perform NG tube placement.
3. A – check that their existing training is still valid.
4. B – evaluate the need for a chaperone on a case-by-case basis.
5. A – involve the patient in their decisions.
6. B – explain the background to a change in patient care.

PART C: QUESTIONS 7 – 14

7. B – reinforce a view about the impact of sleep deprivation.
8. C – researchers have tended to confirm earlier ideas about its purpose.
9. C – the simultaneous production of adenosine and adenosine receptors.
10. A – sleep deprivation has consequences beyond its impact on adenosine levels.
11. D – the extent of the contrast in men’s metabolic states between sleep debt and recovery.
12. D – enforced lack of sleep.
13. A – there was no reversal of a certain effect of sleep deprivation.
14. B – it could be difficult to develop any treatment for sleep deprivation.

PART C: QUESTIONS 15 – 22

15. D – cases of ADHD have genuinely increased in the USA.
16. C – the grouping of imprecise symptoms into a mental disorder.
17. A – highlights the difficulty of distinguishing ADHD from other conditions.
19. C – had mild undiagnosed ADHD in childhood.
20. B – influenced research that led to the reworking of ADHD diagnostic criteria.
22. C – insufficient attention seems to have been paid to it.
Practice Test 5.
Occupational English Test

Reading Test

Part A

TIME: 15 minutes

- Look at the four texts, A – D, on the following pages.
- For each question, 1 – 20, look through the texts, A – D, to find the relevant information.
- Write your answers on the spaces provided in the Question Paper.
- Answer all the questions within the 15-minute time limit.
- Your answers should be correctly spelt.
Paracetamol overdose: Texts

Text A

Paracetamol: contraindications and interactions

4.4 Special warnings and precautions for use

Where analgesics are used long-term (>3 months) with administration every two days or more frequently, headache may develop or increase. Headache induced by overuse of analgesics (MOH medication-overuse headache) should not be treated by dose increase. In such cases, the use of analgesics should be discontinued in consultation with the doctor.

Care is advised in the administration of paracetamol to patients with alcohol dependency, severe renal or severe hepatic impairment. Other contraindications are: shock and acute inflammation of liver due to hepatitis C virus. The hazards of overdose are greater in those with non-cirrhotic alcoholic liver disease.

4.5 Interaction with other medicinal products and other forms of interaction

- Anti coagulants – the effect of warfarin and other coumarins may be enhanced by prolonged regular use of paracetamol with increased risk of bleeding. Occasional doses have no significant effect.
- Metoclopramide – may increase speed of absorption of paracetamol.
- Domperidone – may increase speed of absorption of paracetamol.
- Colestyramine – may reduce absorption if given within one hour of paracetamol.
- Imatinib – restriction or avoidance of concomitant regular paracetamol use should be taken with imatinib.

A total of 169 drugs (1042 brand and generic names) are known to interact with paracetamol. 14 major drug interactions (e.g. amyl nitrite) 62 moderate drug interactions 93 minor drug interactions

A total of 118 brand names are known to have paracetamol in their formulation, e.g. Lemsip.
**Text B**

**Procedure for acute single overdose**

- **Establish time since ingestion**
  - <4 hours
    - Check time of ingestion
    - Check paracetamol level at 4 hours
    - Plot level against time on the relevant nomogram
    - Start acetylcysteine if on or above treatment line
  - 4-8 hours
    - Check immediate paracetamol level. If level will not be obtained before 8 hours after ingestion: start acetylcysteine pending the result
    - Plot level against time on the relevant nomogram
    - Start acetylcysteine if on or above treatment line
  - 8-24 hours
    - Start acetylcysteine immediately
    - Check paracetamol level
    - If level on or above paracetamol graph treatment line: continue acetylcysteine
    - If level below treatment line: stop acetylcysteine
  - >24 hours or unable to establish
    - Start acetylcysteine
    - Check paracetamol level and measure AST/ALT
    - If paracetamol level >5mg/L, or AST/ALT increased or any evidence of liver or renal dysfunction: continue acetylcysteine

- Patient needs treatment with acetylcysteine?
  - No
    - Supportive treatment only
  - Yes
    - Check AST/ALT, INR/PT, serum electrolytes, ura, creatinine, lactate, and arterial pH and repeat every 24 hours

**Text C**

**Paracetamol poisoning – Emergency treatment of poisoning**

Patients whose plasma-paracetamol concentrations are above the **normal treatment line** should be treated with acetylcysteine by intravenous infusion (or, if acetylcysteine cannot be used, with methionine by mouth, provided the overdose has been taken within **10-12 hours** and the patient is not vomiting).

Patients on enzyme-inducing drugs (e.g. carbamazepine, phenobarbital, phenytoin, primidone, rifampicin and St John’s wort) or who are malnourished (e.g. in anorexia, in alcoholism, or those who are HIV positive) should be treated with acetylcysteine if their plasma-paracetamol concentration is above the **high-risk treatment line**.
Text D

Clinical Assessment
- Commonly, patients who have taken a paracetamol overdose are asymptomatic for the first 24 hours or just have nausea and vomiting
- Hepatic necrosis (elevated transaminases, right upper quadrant pain and jaundice) begins to develop after 24 hours and can progress to acute liver failure (ALF)
- Patients may also develop:
  - Encephalopathy
  - Renal failure – usually occurs around day three
  - Oliguria
  - Lactic acidosis
  - Hypoglycaemia

History
- Number of tablets, formulation, any concomitant tablets
- Time of overdose
  - Suicide risk – was a note left?
  - Any alcohol taken (acute alcohol ingestion will inhibit liver enzymes and may reduce the production of the toxin NAPQI, whereas chronic alcoholism may increase it)
Fractures, dislocations and sprains: Questions

Questions 1 – 7

For each question, 1 – 7, decide which texts (A, B, C or D) the information comes from. You may use any letter more than once.

In which text can you find information about

1. the various symptoms of patients who have taken too much paracetamol? .................................................................

2. the precise levels of paracetamol in the blood which require urgent intervention? ..........................................................

3. the steps to be taken when treating a paracetamol overdose patient? .................................................................

4. whether paracetamol overdose was intentional? .................................................................

5. the number of products containing paracetamol? .................................................................

6. what to do if there are no details available about the time of the overdose? .................................................................

7. dealing with paracetamol overdose patients who have not received adequate nutrition? .................................................................
Questions 8 – 13

Answer each of the questions, 8 – 15, with a word or short phrase from one of the texts. Each answer may include words, numbers or both.

8. If paracetamol is used as a long term painkiller, what symptom may get worse?

9. It may be dangerous to administer paracetamol to a patient with which viral condition?

10. What condition may develop in an overdose patient who presents with jaundice?

11. What condition may develop on the third day after an overdose?

12. What drug can be administered orally with 10 – 12 hours as an alternative to acetylcysteine?

13. What treatment can be used if a single overdose has occurred less than an hour ago?
Questions 14 – 20

Complete each of the sentences, 14 – 20, with a word or short phrase from one of the texts. Each answer may include words, numbers or both.

14. If a patient has taken metoclopramide alongside paracetamol, this may affect the ................................................ of the paracetamol.

15. After 24 hours, an overdose patient may present with pain in the .................................................

16. For the first 24 hours after overdosing, patients may only have such symptoms as .................................................

17. Acetylcysteine should be administered to patients with a paracetamol level about the high-risk treatment line who are taking any type of ................................................ medication.

18. A non-high-risk patient should be treated for paracetamol poisoning if their paracetamol level is above ................................................ mg/litre 8 hours after overdosing.

19. A high-risk patient who overdosed ................................................ hours ago should be given acetylcysteine if their paracetamol level is 25 mg/litre or higher.

20. If a patient does not require further acetylcysteine, they should be given treatment categorised as ................................................ only.

END OF PART A

THIS QUESTION PAPER WILL BE COLLECTED
Part B

In this part of the test, there are six short extracts relating to the work of health professionals. For questions 1 – 6, choose answer (A, B or C) which you think fits best according to the text.

1. This guideline extract says that the nurse in charge
   A. must supervise the opening of the controlled drug cupboard.
   B. should make sure that all ward cupboard keys are kept together.
   C. can delegate responsibility for the cupboard keys to another ward.

**Medicine Cupboard Keys**

The keys for the controlled drug cupboard are the responsibility of the nurse in charge. They may be passed to a registered nurse in order for them to carry out their duties and returned to the nurse in charge. If the keys for the controlled drug cupboard go missing, the locks must be changed and pharmacy informed and an incident form completed. The controlled drug cupboard keys should be kept separately from the main body of keys. Apart from in exceptional circumstances, the keys should not leave the ward or department. If necessary, the nurse in charge should arrange for the keys to be held in a neighbouring ward or department by the nurse in charge there.
2. When seeking consent for a post-mortem examination, it is necessary to
   A. give a valid reason for conducting it.
   B. allow all relatives the opportunity to decline it.
   C. only raise the subject after death has occurred.

**Post-Mortem Consent**

A senior member of the clinical team, preferably the Consultant in charge of the care, should raise the possibility of a post-mortem examination with the most appropriate person to give consent. The person consenting will need an explanation of the reasons for the post-mortem examination and what it hopes to achieve. The first approach should be made as soon as it is apparent that a post-mortem examination may be desirable, as there is no need to wait until the patient has died. Many relatives are more prepared for the consenting procedure if they have had time to think about it beforehand.
The purpose of these notes about an incinerator is to
A. help maximise its efficiency.
B. give guidance on certain safety procedures.
C. recommend a procedure for waste separation.

Low-cost incinerator: General operating notes

3.2.1 Hospital waste management

Materials with high fuel values such as plastics, paper, card and dry textile will help maintain high incineration temperature. If possible, a good mix of waste materials should be added with each batch. This can best be achieved by having the various types of waste material loaded into separate bags at source, i.e. wards and laboratories, and clearly labelled. It is not recommended that the operator sorts and mixes waste prior to incineration as this is potentially hazardous. If possible, some plastic materials should be added with each batch of waste as this burns at high temperatures. However, care and judgement will be needed, as too much plastic will create dense dark smoke.
4. What does the manual tell us about spacer devices?

A. Patients should try out a number of devices with their inhaler.
B. They enable a patient to receive more of the prescribed medicine.
C. Children should be given spacers which are smaller than those for adults.

<table>
<thead>
<tr>
<th>Manual extract: Spacer devices for asthma patients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spacer devices remove the need for co-ordination between actuation of a pressurized metered-dose inhaler and inhalation. In addition, the device allows more time for evaporation of the propellant so that a larger proportion of the particles can be inhaled and deposited in the lungs. Spacer devices are particularly useful for patients with poor inhalation technique, for children, for patients requiring higher doses, for nocturnal asthma, and for patients prone to candidiasis with inhaled corticosteroids. The size of the spacer is important, the larger spacers with a one-way valve being most effective. It is important to prescribe a spacer device that is compatible with the metered-dose inhaler. Spacer devices should not be regarded as interchangeable; patients should be advised not to switch between spacer devices.</td>
</tr>
</tbody>
</table>
5. The email is reminding staff that the
   A. benefits to patients of using bedrails can outweigh the dangers.
   B. number of bedrail-related accidents has reached unacceptable levels.
   C. patient’s condition should be central to any decision about the use of bed rails.

<table>
<thead>
<tr>
<th>To: All Staff</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Subject:</strong> Use of bed rails</td>
</tr>
<tr>
<td>Please note the following.</td>
</tr>
<tr>
<td>Patients in hospital may be at risk of falling from bed for many reasons including poor mobility, dementia or delirium, visual impairment, and the effects of treatment or medication. Bedrails can be used as safety devices intended to reduce risk. However, bedrails aren’t appropriate for all patients, and their use involves risks. National data suggests around 1,250 patients injure themselves on bedrails annually, usually scrapes and bruises to their lower legs. Statistics show 44,000 reports of patient falls from bed annually resulting in 11 deaths, while deaths due to bedrail entrapment occur less than one every two years, and are avoidable if the relevant advice is followed. Staff should continue to take great care to avoid bedrail entrapment, but be aware that in hospital settings there may be a greater risk of harm to patients who fall out of bed.</td>
</tr>
</tbody>
</table>
Analeptic drugs

Respiratory stimulants (analeptic drugs) have a limited place in the treatment of ventilatory failure in patients with chronic obstructive pulmonary disease. They are effective only when given by intravenous injection or infusion and have a short duration of action. Their use has largely been replaced by ventilatory support. However, occasionally when ventilatory support is contra-indicated and in patients with hypercapnic respiratory failure who are becoming drowsy or comatose, respiratory stimulants in the short term may arouse patients sufficiently to co-operate and clear their secretions.

Respiratory stimulants can also be harmful in respiratory failure since they stimulate non-respiratory as well as respiratory muscles. They should only be given under expert supervision in hospital and must be combined with active physiotherapy. At present, there is no oral respiratory stimulant available for long term use in chronic respiratory failure.

6. What does this extract from a handbook tell us about analeptic drugs?

A. They may be useful for patients who are not fully responsive.
B. Injections of these drugs will limit the need for physiotherapy.
C. Care should be taken if they are used over an extended period.
In this part of the test, there are two texts about different aspects of healthcare. For questions 7 – 22, choose the answer (A, B, C or D) which you think fits best according to the text.

Text 1: Patient Safety

Highlighting a collaborative initiative to improve patient safety In a well-documented case in November 2004, a female patient called Mary was admitted to a hospital in Seattle, USA, to receive treatment for a brain aneurysm. What followed was a tragedy, made worse by the fact that it needn’t have occurred at all. The patient was mistakenly injected with the antiseptic chlorhexidine. It happened, the hospital says, because of ‘confusion over the three identical stainless steel bowls in the procedure room containing clear liquids — chlorhexidine, contrast dye and saline solution’. Doctors tried amputating one of Mary’s legs to save her life, but the damage to her organs was too great: she died 19 days later.

This and similar incidents are what inspired Professor Dixon-Woods of the University of Cambridge, UK, to set out on a mission: to improve patient safety. It is, she admits, going to be a challenge. Many different policies and approaches have been tried to date, but few with widespread success, and often with unintended consequences. Financial incentives are widely used, but recent evidence suggests that they have little effect. ‘There’s a danger that they tend to encourage effort substitution,’ explains Dixon-Woods. In other words, people concentrate on the areas that are being incentivised, but neglect other areas. ‘It’s not even necessarily conscious neglect. People have only a limited amount of time, so it’s inevitable they focus on areas that are measured and rewarded.’

In 2013, Dixon-Woods and colleagues published a study evaluating the use of surgical checklists introduced in hospitals to reduce complications and deaths during surgery. Her research found that that checklists may have little impact, and in some situations might even make things worse. ‘The checklists sometimes introduced new risks. Nurses would use the lists as box-ticking exercises – they would tick the box to say the patient had had their antibiotics when there were no antibiotics in the hospital, for example.’ They also reinforced the hierarchies – nurses had to try to get surgeons to do certain tasks, but the surgeons used the situation as an opportunity to display their power and refuse.

Dixon-Woods and her team spend time in hospitals to try to understand which systems are in place and how they are used. Not only does she find differences in approaches between hospitals, but also between units and even between shifts. ‘Standardisation and harmonisation are two of the most urgent issues we have to tackle. Imagine if you have to learn each new system wherever you go or even whenever a new senior doctor is on the ward. This introduces massive risk.'
Dixon-Woods compares the issue of patient safety to that of climate change, in the sense that it is a ‘problem of many hands’, with many actors, each making a contribution towards the outcome, and there is difficulty in identifying where the responsibility for solving the problem lies. ‘Many patient safety issues arise at the level of the system as a whole, but policies treat patient safety as an issue for each individual organisation.’

Nowhere is this more apparent than the issue of ‘alarm fatigue’, according to Dixon-Woods. Each bed in an intensive care unit typically generates 160 alarms per day, caused by machinery that is not integrated. ‘You have to assemble all the kit around an intensive care bed manually,’ she explains. ‘It doesn’t come built as one like an aircraft cockpit. This is not something a hospital can solve alone. It needs to be solved at the sector level.’

Dixon-Woods has turned to Professor Clarkson in Cambridge’s Engineering Design Centre to help. ‘Fundamentally, my work is about asking how we can make it better and what could possibly go wrong,’ explains Clarkson. ‘We need to look through the eyes of the healthcare providers to see the challenges and to understand where tools and techniques we use in engineering may be of value.’ There is a difficulty, he concedes: ‘There’s no formal language of design in healthcare. Do we understand what the need is? Do we understand what the requirements are? Can we think of a range of concepts we might use and then design a solution and test it before we put it in place? We seldom see this in healthcare, and that’s partly driven by culture and lack of training, but partly by lack of time.’ Dixon-Woods agrees that healthcare can learn much from engineers. ‘There has to be a way of getting our two sides talking,’ she says. ‘Only then will we be able to prevent tragedies like the death of Mary.’
Text 1: Questions 7 – 14

7. What point is made about the death of a female patient called Mary?

A. It was entirely preventable.
B. Nobody was willing to accept the blame.
C. Surgeons should have tried harder to save her life.
D. It is the type of incident which is becoming increasingly common.

8. What is meant by the phrase *effort substitution* in the second paragraph?

A. Monetary resources are diverted unnecessarily.
B. Time and energy is wasted on irrelevant matters.
C. Staff focus their attention on a limited number of issues.
D. People have to take on tasks which they are unfamiliar with.

9. By quoting Dixon-Woods in the second paragraph, the writer shows that the professor

A. understands why healthcare employees have to make certain choices.
B. doubts whether reward schemes are likely to put patients at risk.
C. believes staff should be paid a bonus for achieving goals.
D. Feels the people in question have made poor choices.

10. What point is made about checklists in the third paragraph?

A. Hospital staff sometimes forget to complete them.
B. Nurses and surgeons are both reluctant to deal with them.
C. They are an additional burden for over-worked nursing staff.
D. The information recorded on them does not always reflect reality.
11. What problem is mentioned in the fourth paragraph?
   A. Failure to act promptly.
   B. Outdated procedures.
   C. Poor communication.
   D. Lack of consistency.

12. What point about patient safety is the writer making by quoting Dixon-Woods’ comparison with climate change?
   A. The problem will worsen if it isn’t dealt with soon.
   B. It isn’t clear who ought to be tackling the situation.
   C. It is hard to know what the best course of action is.
   D. Many people refuse to acknowledge there is a problem.

13. The writer quotes Dixon-Woods’ reference to intensive care beds in order to
   A. present an alternative viewpoint.
   B. illustrate a fundamental obstacle.
   C. show the drawbacks of seemingly simple solutions.
   D. give a detailed example of how to deal with an issue.

14. What difference between healthcare and engineering is mentioned in the final paragraph?
   A. the types of systems they use.
   B. the way they exploit technology.
   C. the nature of the difficulties they face.
   D. the approach they take to deal with challenges.
Text 2: Migraine – more than just a headache

When a news reporter in the US gave an unintelligible live TV commentary of an awards ceremony, she became an overnight internet sensation. As the paramedics attended, the worry was that she’d suffered a stroke live on air. Others wondered if she was drunk or on drugs. However, in interviews shortly after, she revealed, to general astonishment, that she’d simply been starting a migraine. The bizarre speech difficulties she experienced are an uncommon symptom of aura, the collective name for a range of neurological symptoms that may occur just before a migraine headache. Generally aura are visual – for example blind spots which increase in size, or have a flashing, zig-zagging or sparkling margin, but they can include other odd disturbances such as pins and needles, memory changes and even partial paralysis.

Migraine is often thought of as an occasional severe headache, but surely symptoms such as these should tell us there’s more to it than meets the eye. In fact many scientists now consider it a serious neurological disorder. One area of research into migraine aura has looked at the phenomenon known as Cortical Spreading Depression (CSD) – a storm of neural activity that passes in a wave across the brain’s surface. First seen in 1944 in the brain of a rabbit, it’s now known that CSD can be triggered when the normal flow of electric currents within and around brain cells is somehow reversed. Nouchine Hadjikhani and her team at Harvard Medical School managed to record an episode of CSD in a brain scanner during migraine aura (in a visual region that responds to flickering motion), having found a patient who had the rare ability to be able to predict when an aura would occur. This confirmed a long-suspected link between CSD and the aura that often precedes migraine pain. Hadjikhani admits, however, that other work she has done suggests that CSD may occur all over the brain, often unnoticed, and may even happen in healthy brains. If so, aura may be the result of a person’s brain being more sensitive to CSD than it should be.

Hadjikhani has also been looking at the structural and functional differences in the brains of migraine sufferers. She and her team found thickening of a region known as the somatosensory cortex, which maps our sense of touch in different parts of the body. They found the most significant changes in the region that relates to the head and face. ‘Because sufferers return to normal following an attack, migraine has always been considered an episodic problem,’ says Hadjikhani. ‘But we found that if you have successive strikes of pain in the face area, it actually increases cortical thickness.’

Work with children is also providing some startling insights. A study by migraine expert Peter Goadsby, who splits his time between King’s College London and the University of California, San Francisco, looked at the prevalence of migraine in mothers of babies with colic - the uncontrolled crying and fussiness often blamed on sensitive stomachs or reflux. He found that of 154 mothers whose babies were having a routine two-month check-up, the migraine sufferers were 2.6 times as likely to have a baby with colic. Goadsby believes it is possible that a baby with a tendency to migraine may not cope well with the barrage of
sensory information they experience as their nervous system starts to mature, and the distress response could be what we call colic.

Linked to this idea, researchers are finding differences in the brain function of migraine sufferers, even between attacks. Marla Mickleborough, a vision specialist at the University of Saskatchewan in Saskatoon, Canada, found heightened sensitivity to visual stimuli in the supposedly ‘normal’ period between attacks. Usually the brain comes to recognise something repeating over and over again as unimportant and stops noticing it, but in people with migraine, the response doesn’t diminish over time. ‘They seem to be attending to things they should be ignoring,’ she says.

Taken together this research is worrying and suggests that it’s time for doctors to treat the condition more aggressively, and to find out more about each individual’s triggers so as to stop attacks from happening. But there is a **silver lining**. The structural changes should not be likened to dementia, Alzheimer’s disease or ageing, where brain tissue is lost or damaged irreparably. In migraine, the brain is compensating. Even if there’s a genetic predisposition, research suggests it is the disease itself that is driving networks to an altered state. That would suggest that treatments that reduce the frequency or severity of migraine will probably be able to reverse some of the structural changes too. Treatments used to be all about reducing the immediate pain, but now it seems they might be able to achieve a great deal more.
Text 2: Questions 15 – 22

15. Why does the writer tell the story of the news reporter?

A. To explain the causes of migraine aura.
B. To address the fears surrounding migraine aura.
C. To illustrate the strange nature of migraine aura.
D. To clarify a misunderstanding about migraine aura.

16. The research by Nouchine Hadjikhani into CSD

A. has less relevance than many believe.
B. did not result in a definitive conclusion.
C. was complicated by technical difficulties.
D. overturned years of accepted knowledge.

17. What does the word ‘This’ in the second paragraph refer to?

A. The theory that connects CSD and aura.
B. The part of the brain where auras take place.
C. The simultaneous occurrence of CSD and aura.
D. The ability to predict when an aura would happen.

18. The implication of Hadjikhani’s research into the somatosensory cortex is that

A. migraine could cause a structural change.
B. a lasting treatment for migraine is possible.
C. some diagnoses of migraine may be wrong.
D. having one migraine is likely to lead to more.
19. What does the writer find surprising about Goadsby’s research?

A. The idea that migraine may not run in families.
B. The fact that migraine is evident in infancy.
C. The link between childbirth and onset of migraine.
D. The suggestion that infant colic may be linked to migraine.

20. According to Maria Mickleborough, what is unusual about the brain of migraine sufferers?

A. It fails to filter out irrelevant details.
B. It struggles to interpret visual input.
C. It is slow to respond to sudden changes.
D. It does not pick up on important information.

21. The writer uses the phrase ‘a silver lining’ in the final paragraph to emphasise

A. the privileged position of some sufferers.
B. a more positive aspect of the research.
C. the way migraine affects older people.
D. the value of publicising the research.

22. What does the writer suggest about the brain changes seen in migraine sufferers?

A. Some of them may be beneficial.
B. They are unlikely to be permanent.
C. Some of them make treatment unnecessary.
D. They should still be seen as a cause for concern.

END OF READING TEST
READING SUB-TEST - ANSWER KEY

PART A: QUESTIONS 1 – 20

1. D
2. C
3. B
4. D
5. A
6. B
7. C
8. headache(s)
9. hepatitis C OR hep C
10. ALF OR acute liver failure
11. renal failure (NOT: renal dysfunction)
12. methionide
13. (activated) charcoal
14. speed of absorption
15. right upper quadrant
16. nausea OR vomiting OR nausea and vomiting OR vomiting and nausea
17. enzyme –inducing
18. 100 OR a hundred OR one hundred
19. 12 OR twelve
20. supportive (treatment)
PART B: QUESTIONS 1 – 6

1. C – can delegate responsibility for the cupboard keys to another ward.
2. A – give a valid reason for conducting it.
4. B – they enable a patient to receive more of the prescribed medicine.
5. A – benefits to patients of using bedrails can outweigh the dangers.
6. A – they may be useful for patients who are not fully responsive.

PART C: QUESTIONS 7 – 14

7. A – it was entirely preventable.
8. C – staff focus their attention on a limited number of issues.
9. A – understands why healthcare employees have to make certain choices.
10. D – the information recorded on them does not always reflect reality.
11. D – lack of consistency
12. B – it isn’t clear who ought to be tackling the situation.
14. D – the approach they take to deal with challenges.

PART C: QUESTIONS 15 – 22

15. C – to illustrate the strange nature of migraine aura.
16. B – did not result in a definitive conclusion.
17. C – the simultaneous occurrence of CSD and aura.
18. A – migraine could cause a structural change.
19. D – the suggestion that infant colic may be linked to migraine.
20. A – it fails to filter out irrelevant details.
21. B – a more positive aspect of the research.
22. B – they are unlikely to be permanent.