OCCUPATIONAL ENGLISH TEST

READING PRACTICE NO.02

Part A

TIME: 15 minutes

Look at the four texts, **A-D** . For each question, **1-20**, look through the texts, A-D, to find the relevant information. Write your answers in the spaces provided in this Question Paper . Answer all the questions within the 15-minute time limit.

Your answers should only be taken from texts A-D and must be correctly spelt.

Text A

Total Knee Replacement (TKR) surgery is a major but routine operation performed to reduce the effects of a damaged, worn or diseased knee with an artificial joint. Damaged cartilage and bone are removed from the surface of the knee joint and replaced with metal and plastic. The parts may be held in place with cement or new bone growth. It is generally considered a safe and effective procedure that can relieve knee pain and allow people to be more active. Osteoarthritis is the main reason for a TKR. Other reasons include rheumatoid arthritis, knee injury and knee deformity.

TKR is the last resort because it is a major operation and the artificial joint has a limited life expectancy. Medication, physiotherapy and lifestyle changes are the first choices for managing the knee symptoms. Smaller operations may be considered to delay the need for a TKJR. Options include: arthroscopic washout and debridement; osteotomy to realign the knee joint and mosaicplasty to repair the damaged bone surface. A partial knee replacement (PKR) where only one side of the joint is replaced in a smaller operation, is an alternative option to full joint replacement.

The life expectancy of a TKR is about 20 years. Any adult can be considered for a knee replacement, but most people are aged between ages of 60 and 80. Increasingly, younger people are having TKR as it improves their quality of life and their ability to carry on working. However, this also increases the likelihood that parts of the artificial joint will wear out or the joint will loosen. This means further surgery may be required and a revision of a TKR is a more complex procedure and the patient may not be in good health.

Text B

Clinical assessment

- Complete a thorough medical history check to ensure fitness for anesthetic and rehabilitation
- Knee x-rays
- Physiotherapy assessment of mobility and gait
- Check for symptoms of
  - severe pain, swelling and stiffness in knee joint
  - mobility is reduced
  - knee 'giving way'
  - knee locking or clicking
  - inability to straighten the knee
  - interference with quality of life and sleep
  - difficulty with, or unable to carry out everyday tasks, such as shopping or getting out of the bath
  - feeling depressed because of the pain and lack of mobility
  - unable work or have a normal social life

Text C

Potential complications

- Infection and blood clots are the most common complications following knee replacement surgery.
- Infection of the wound is usually treated with antibiotics, but occasionally the wound can become deeply infected and require further surgery; in rare cases it may require replacement of the artificial knee joint.
- The operated leg will be bruised but patients are advised to seek medical help if they find the leg is becoming hot, reddened, hard or painful. Also patients are advised to seek help if they experience chest pains as this may indicate a pulmonary embolism.

Other potential complications include:

- unexpected bleeding into the knee joint
- ligament, artery or nerve damage in the area around the knee joint
- fracture in the bone around the artificial joint during or after surgery
- excess bone forming around the artificial knee joint and restricting movement of the knee
- excess scar tissue forming and restricting movement of the knee
- the kneecap becoming dislocated
- numbness in the area around the wound scar
- allergic reaction to the bone cement

Text D

Post-operative care

Post-operative care focuses on pain relief, deep vein thrombosis prevention and early knee mobility. Bolus analgesia is given during surgery and opioid analgesia is administered using a patient controlled analgesia system (PCAS) for 24-48 hours post operatively. Oral medication is commenced as soon as possible. Non-steroidal anti-inflammatory drugs are not given as this impacts on the bone healing process.

Deep vein thrombosis prevention options include use of an intermittent foot sole pump, administration of low molecular weight heparin and wearing anti-embolic stockings. Most patients are mobilized with two crutches or a walking frame within 12-18 hours of surgery.

Knee flexion and extension exercises are started as soon as possible, usually on postoperative day one. Physiotherapy exercises are encouraged several times a day to increase muscle strength and gain knee mobility. The knee will be very swollen at this stage so movement will be minimal. Analgesia before exercising is recommended. Some patients need to use a continuous passive motion (CPM) machine to start getting flexion back in their knee.

At discharge, most patients are able to:

- bend their knee well, preferably to a minimum of a 90-degree angle
- walk 10 meters and go up and down stairs with a walking aid
- manage their own personal care with minimal assistance e.g. a shower stool to reduce standing while showering

Timeline to full recovery

Timeline	Activity
Week 1-3	Walking and taking stairs for longer distances without an assistive device. Continuing with exercises to increase strength and range of motion
Week 4-6	Walking and taking stairs independent of assistive devices. Resuming household chores and activities. Returning to work and driving. Continuing with exercise to increase or maintain strength and range of motion.
Week 7-12	Walking for longer periods, using a stationary bike, and continuing prescribed exercises at home. Returning to low-impact activities.

Questions 1-7

For each question, **1-7**, decide which text **(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 symptoms to check for during clinical assessment?

2. The timeline to full recovery?

3. Smaller operations as alternatives to knee replacement?

4. Post operative care following knee replacement?

5. Potential complications?

6. The reasons a patient needs to seek medical help after discharge?

7. What a total knee replacement is?

Question 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.

8. What type of analgesia is administered using a patient controlled analgesia system (PCAS)?

9. What do the initials PKR stand for?

10. What are the most common complications following knee replacement surgery?

11. During the clinical assessment, what does a physiotherapist assess?

12. What is the main reason a TKR is carried out for?

13. What is the minimum knee bend a patient should have on the discharge from a hospital?

14. During the clinical assessment, a patient's medical history is checked to ensure they are fit for what?

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. Deep vein thrombosis prevention options include use of an _____ pump.

16. A person may report knee _____ or clicking during the clinical assessment.

17. The parts of an artificial knee joint may be held in place with _____ or new bone growth

18. On discharge, most patients are able to walk _____ and go up and down stairs with a walking aid

19._____ tissue forming and restricting movement of the knee is a potential complication following knee replacement surgery.

20._____ and lifestyle changes are the first choices for managing the knee symptoms .

Part B

TIME: 45 MIN for both B&C

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

1. If a baby is born with visual problems, what stage of pregnancy was it most likely to have been infected with rubella?

A. As all babies infected with rubella in their first 11 weeks develop congenital rubella syndrome, the first trimester is when the infection most likely occurred.

B. As over a third of all fetuses infected with rubella in weeks 13-16 develop congenital rubella syndrome, the second trimester is when the infection most likely occurred.

C. As all babies infected with rubella after their first 16 weeks do not develop congenital rubella syndrome, the third trimester is when the infection most likely occurred.

Risks associated with rubella infection in pregnancy

Maternal rubella infection can result in spontaneous miscarriage, fetal infection, stillbirth, or fetal growth restriction (Reef et al 2000). Congenital infection is most likely if the maternal infection occurs in the first 16 weeks of pregnancy, with congenital rubella syndrome occurring in all fetuses infected before the 11th week and in 35% of those infected at 13–16 weeks (Miller et al 1982). If infection occurs after 16 weeks of pregnancy, the risk of fetal damage is negligible. Features of congenital rubella syndrome include cardiac defects, deafness, ocular defects, thrombocytopenic purpura, haemolytic anemia, enlarged liver and spleen, and inflammation of the meninges and brain (Sanchez et al 2010). Pneumonitis, diabetes, thyroid dysfunction and progressive panencephalitis are other late expressions of the syndrome (Weil et al 1975; Cooper et al 1995).

2. The statement below highlights that

A. latex is being found in the Fluad vaccine itself

B. the Fluad vaccine itself contains latex

C. latex is not being found in the Fluad vaccine itself

Memo to staff re: presence of latex in Fluad trivalent influenza vaccine

During the 2018 influenza season, natural rubber latex is present in the sheath covering the needle of trivalent influenza vaccine Fluad. Fluad is available for people aged 65 years and over through the National immunization Program (NIP). While reactions to latex are rare, anyone who has a severe allergy to latex should not receive Fluad. Patients aged 65 years and over can still be safely vaccinated with the alternative trivalent influenza vaccine, Fluzone High-Dose through the NIP.

Please note there are no safety concerns regarding the Fluad vaccine itself.
The sponsor of Fluad, Seqirus, commits to update the Product Information and Consumer Medicines Information for this vaccine accordingly.

Action for vaccination providers:
If you are vaccinating patients with Fluad, please be aware of this issue and advise patients accordingly. Reassure patients that reactions to latex are rare.
Before administering Fluad, confirm with patients that they are not allergic to latex.Anyone who has a severe allergy to latex should not receive Fluad. Patients aged 65 years and over can still be safely vaccinated with the alternative trivalent influenza vaccine, Fluzone High Dose, available through the NIP (National Immunization Program) with all vaccinations, and be prepared to treat immediate allergic reactions, including potential anaphylaxis.

3. The aim of this trial is to

A. check if burns heal at the same rate as diabetic foot ulcers when the same dressing is used

B. see if a spray-on skin dressing saves money and improves patient outcomes

C. see if patients getting care in outpatient departments heal quicker than those having care provided in their own home

Spray-on skin for diabetic foot ulcers: an open label randomized controlled trial

A novel intervention towards achieving these goals is the use of spray-on skin for patients with DFU. The application of 'spray-on' autologous skin grafting aids epithelial regeneration and wound healing and has been used successfully for the treatment of burns to improve healing. In this research project we will compare spray-on skin with standard care in an open label randomized controlled trial in patients presenting to hospital with DFU. We hypothesize that spray-on skin will shorten the time for the ulcer to heal completely. In doing so, this approach can be expected to prevent amputations and recurrent ulceration whilst improving quality of life.

Outpatient costs for dressings, home nursing visits and outpatient appointments are key cost drivers for DFU. If spray-on skin is effective, large cost savings to WA Health will be realized immediately through a shortened time to healing, and through a higher proportion of patients achieving complete healing. Any economic benefits are likely to be amplified across Australia and other similar demographic settings where aging populations with increased diabetes rates are considered major future challenges.

4. What does this information on injection technique tell us about the lifted skinfold technique

A. the lifted skinfold technique allows for a suitable needle choice to be made

B. the lifted skinfold technique ensures medication to be administered into the muscle layer

C. the lifted skinfold technique involves releasing the skin quickly to reduce the risk of bruising

Injection technique

As the amount of subcutaneous fat varies between patients, individual patient assessment is vital before carrying out the procedure. It is important to avoid inadvertently injecting the drug into muscle, as intramuscular injection can affect drug absorption; for example, inadvertent administration of insulin into the muscle can lead to accelerated insulin absorption and lead to hypoglycemia.

A lifted skinfold technique (pinching or bunching the skin) can be used to lift the subcutaneous layer away from the underlying muscle. This method reduces the risk of inadvertent intramuscular injection when undertaken correctly; however, releasing the skin too quickly before the injection is completed or lifting it incorrectly can increase that risk.

Needles need to be long enough to inject the drug into the subcutaneous tissue. They come in lengths of 5cm, 6cm and 8cm. It is suggested the required needle length can be estimated by pinching the skin using the lifted skinfold technique and selecting a needle that is 1.5 times the width of the skinfold.

5. What does this article tell us about the discharge medication dispensing process?

A. All prescriptions have to be at the Hospital pharmacy an hour before the patient is due to go home

B. The prescription goes to the hospital pharmacy after being written up by the medical officer

C. The Medical Officer must let the Hospital Pharmacy know if there are any amendments or corrections to be made

Discharge medications

The Discharge Prescription must be completed by the Medical Officer with reference to the current medication chart. The discharge medications section of the Electronic Discharge Summary (EDS) should be used for this process with the prescription being printed and then forwarded to the Hospital Pharmacy.

The EDS Discharge Prescription, or the Discharge Medication form, must be forwarded to Pharmacy at least 1 hour prior (or 3 hours for complicated discharges) to the patient being discharged from hospital. If amendments or corrections are made after sending the EDS Discharge Prescription to Pharmacy, it is the responsibility of the Medical Officer who completed the EDS Discharge Prescription to make the amendments to the Discharge Summary within the EDS as soon as possible to ensure the GP receives accurate information regarding their patient's medications on discharge.

6. In this article what were staff on the ward directed to do?

A. Clinical restraint is essential in acute mental health wards.

B. When restraint occurs five people need to be present to assist, one of whom must be the shift coordinator.

C. There must be a shift coordinator available and correct processes must be followed whenever clinical restraint is needed.

Report on patients unexpected death

Staff working in the mental health ward of the Townsville Hospital have been sent a directive about the correct clinical restraint procedure after a patient died unexpectedly.

A 44-year-old man died in the high dependency unit of the acute mental health ward at about 9pm on July 7.

It is believed the man may have died from a heart attack as a male security guard and female nurse attempted to restrain him.

The staff memo said it was “essential” that when a restraint occurs in an inpatient setting, best practice guidelines and procedures were followed.

The memo also said it was “essential” that the shift co-ordinator was physically present during all restraint and provided clinical oversight to ensure the safety of the patient team.
A source said staff in the hospital had also been advised having more people to restrain a patient was best practice.

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

Surgery that preserves the lung, when combined with other therapies, appears to extend the lives of people with a subtype of the rare and deadly cancer mesothelioma, a new study suggests. Tracking 73 patients with advanced malignant pleural mesothelioma—which affects the lungs' protective lining in the chest cavity—researchers found that those treated with lung-sparing surgery had an average survival of nearly three years. A subset of those patients survived longer than seven years. Mesothelioma patients treated with chemotherapy alone, which is standard care, live an average of 12 to 18 months, the researchers said.

Study participants received lung-sparing surgeries and another treatment called photodynamic therapy that uses light to kill cancer cells. Ninety-two percent of the group also received chemotherapy. The study volunteers achieved far longer survival times, said study author Dr. Joseph Friedberg. "When you take the entire lung out, it's a significant compromise in quality of life," said Friedberg. He's director of the University of Maryland Medical Center's Mesothelioma and Thoracic Oncology Treatment and Research Center in Baltimore.

"For all intents and purposes, this lung-sparing surgical approach is the largest palliative operation known to man, since chances of curing mesothelioma are vanishingly small," said Friedberg. He completed the research while at his previous post at the University of Pennsylvania. "Plus, most of these patients are elderly, so preserving quality of life was really the goal," he added.

About 3,000 Americans are diagnosed with mesothelioma each year, the American Cancer Society says. Many of these people were exposed to the mineral asbestos in industrial occupations, according to the U.S. National Cancer Institute (NCI). Used in products such as insulation, building shingles and flooring, asbestos dust fibers can be inhaled or swallowed, settling in the lungs, stomach or other body areas. Often, it takes decades after exposure for mesothelioma to develop, the NCI says.

Friedberg and his team performed the lung-sparing surgeries on study participants between 2005 and 2013. Overall average survival was 35 months, the study showed. But survival time more than doubled to 7.3 years for 19 patients whose cancer had not spread to their lymph nodes. Most of the patients in the study had stage 3 or stage 4 cancer. Typically, Friedberg said, only about 15 to 20 percent of mesothelioma patients

are treated with surgery, which often removes an entire lung as well as the diaphragm and the sac surrounding the heart.

Friedberg said that between 20 and 40 percent of pleural mesothelioma patients with the epithelial subtype might be eligible for lung-sparing surgery. He explained that this surgery removes all visible traces of cancer. It typically has fewer complications and a lower risk of dying in the 90 days following the 10 to 14 hours procedure.

"It's still relatively new that people do lung-sparing surgery for this disease, and it's not established that this is what we need to do," said Friedberg. "I would say this is one of the most lethal cancers known to man. There's a pressing need for new and innovative treatments," he noted.

Dr. Daniel Petro, a medical oncologist/hematologist at the University of Pittsburgh Medical Center, said lung-sparing surgery for mesothelioma is also done at academic centers such as his, and he was not surprised by the study's results "This surgical approach is a step forward with this particular terrible cancer," Petro said, "and we've got to keep coming up with better options to eradicate it."

7. According to the information in first Paragraph

A. Mesothelioma patients have benefited from chemotherapy alone

B. Mesothelioma patients have benefited from lung-sparing surgery alone

C. Mesothelioma patients have benefited most from lung-sparing surgery and additional therapies

D. Only a subset of mesothelioma patients can survive

8. Why is lung-sparing surgery better than removing the entire lung?

A. Because patients can receive chemotherapy

B. Because patients survive longer

C. Because patients' lives are compromised

D. Because cancer cells are completely eradicated

9. What does "palliative" refer to in third Paragraph

A. Soothing

B. Life-saving

C. Routine

D. Delicate

10. Which of the following does NOT involve the use of asbestos?

A. Insulation

B. Dust fibers

C. Building Shingles

D. Flooring

11.The patients whose cancer had not spread to their lymph nodes

A. Were eligible for the lung-sparing surgery

B. Lived 7.3 years longer than the other patients

C. Lived more than double the average expectancy

D. Were among the 15 to 20% of the patients treated with surgery

12. Lung-sparing surgery

A. Can be done on all mesothelioma patients.

B. Can be done on less than a quarter of the patients.

C. Can be done on less than half of mesothelioma patients.

D. Can be done on 40% of mesothelioma patients.

13. In seventh paragraph, Friedberg draws the reader's attention to

A. All the positive effects of lung-sparing surgery.

B. The fact that mesothelioma is a deadly cancer.

C. The fact that there is a new and highly effective treatment.

D. The necessity of implementing ground-breaking treatments.

14. Dr. Daniel Petro believes that the study

A. Is a step forward towards the discovery of a new treatment.

B. Confirms his previous research.

C. Produced results he would have expected.

D. Will contribute to eradicating mesothelioma.

Text 2

People with the reading disability dyslexia may have brain differences that are surprisingly wide-ranging, a new study suggests. Using specialized brain imaging, scientists found that adults and children with dyslexia showed less ability to "adapt" to sensory information compared to people without the disorder. And the differences were seen not only in the brain's response to written words, which would be expected. People with dyslexia also showed less adaptability in response to pictures of faces and objects. That suggests they have "deficits" that are more general, across the whole brain, said study lead author Tyler Perrachione. He's an assistant professor of speech, hearing and language sciences at Boston University. The findings, published in the Dec. 21 issue of the journal Neuron, offer clues to the root causes of dyslexia.

Other studies have found that people with dyslexia show differences in the brain's structure and function. "But it hasn't been clear whether those differences are a cause or consequence of dyslexia," Perrachione explained. The chicken-and-egg question is tricky, because years of reading, or years of reading disability, affect brain development. Perrachione said his team thinks it has discovered a cause of dyslexia—partly because the reduced adaptation was seen in young kids, and not only adults.

A researcher who was not involved in the study called it "groundbreaking." "Frankly, researchers have struggled with understanding the brain bases of dyslexia," said Guinevere Eden, director of the Center for the Study of Learning at Georgetown University Medical Center in Washington, D.C. Scientists have known that brain structure and function look different in people with dyslexia, Eden said, but they haven't known why. "This study makes an important step in that direction," she said. "It gets to the true characteristics of the properties of the neurons [cells] in these brain regions, not just their outward appearance."

People with dyslexia have consistent problems with language skills, especially reading. According to the International Dyslexia Association, as much as 15 percent to 20 percent of the population has symptoms of dyslexia—including "slow" reading, poor spelling and writing skills, and problems deciphering words that are similar to each other.

The new study aimed to see whether "neural adaptation" might play a role. Adaptation is how the brain improves its efficiency. Perrachione offered an example: When you speak to someone for the first time, the brain needs a little time to get used to that person's voice, speaking rhythms and pronunciation of words, for instance.

But then the brain adapts and stops working so hard to process the other person's speech. In people with dyslexia, however, that adaptation seems to be hindered. "Their brains are working harder to process these sensory inputs," Perrachione said.

The new findings are based on functional MRI scans of adults and children with and without dyslexia. The scans were used to capture the study participants' brain activity as they performed a series of tasks. In one experiment, the participants listened to a series of words, read either by a single speaker or several different ones. Overall, the researchers found, people without dyslexia adapted to the single voice, but not to multiple speakers. In contrast, people with dyslexia showed much less adaptation in their brain activity, even when listening to a single speaker. The same pattern was seen when study participants viewed written words.

But the differences went beyond words: People with dyslexia showed less brain adaptation in response to images of faces and objects. That's "surprising," Eden said, since the disorder does not involve apparent problems with recognizing faces or objects.

Perrachione speculated on a reason for the findings: The reduced brain adaptation may only "show up" when it comes to reading, because reading is such a complex skill. The brain has no dedicated "reading" area. "Reading is a tool, or technology, that we've invented," Perrachione pointed out. Learning to use that technology requires a complex orchestration of different brain "domains," he explained. And yet, because everyone is expected to read, most people probably do not realize what an accomplishment it is, Perrachione said. Eden agreed. "Learning to read is an astonishing feat and one that we often take for granted," she said.

15. The author describes dyslexic people’s brain differences as

A. More varied than many people realize

B. Easier to understand than people expect

C. Having wide-reaching effects

D. Absolute

16. What new information did the study reveal?

A. That their brains are more plastic.

B. That their ability to recognize faces and objects is underdeveloped.

C. It confirmed that they have problems recognizing written words.

D. That their brains are less flexible in several ways not considered previously.

17. What is implied by the chicken-and-egg question in Paragraph 2?

A. The impossibility of discovering the true cause of dyslexia.

B. The fact that many studies consistently reveal various things about the differences in the brain structure.

C. The fact that it is impossible to identify whether alterations are the cause or consequence of dyslexia.

D. The fact that the brain's structure and function are both the cause and consequence of dyslexia.

18. Why has the study been called “groundbreaking”?

A. Because previously scientists hadn't been able to understand why brains with dyslexia are different.

B. Because so far scientists couldn't understand why people with dyslexia have other brain deficiencies.

C. Because it reveals the brain structure of people without dyslexia.

D. Because it makes progress in understanding the basis of dyslexia in the human brain.

19. What is the main problem with people with dyslexia according to Perrachione?

A. There's no neural adaptation

B. Their brains take much longer to adapt.

C. Adaptation occurs instantly.

D. There is no sensory adaptation.

20. What does the experiment in the 7th paragraph reveal?

A. That people with dyslexia experience difficulties when listening to multiple speakers.

B. That it was difficult for both people with and without dyslexia to adapt to multiple speakers.

C. That people with dyslexia have more difficulty processing listening than written words.

D. That the brains of people with dyslexia have difficulty adapting to both listening and reading.

21. When is dyslexia most apparent?

A. During the process of reading.

B. In face recognition.

C. In face and object recognition.

D. When reading is used as a tool or technology.

22. Which of the following is not true about reading?

A. It is a very complex skill.

B. It can be located in one center of the brain.

C. It requires communication among different areas in the brain.

D. It is an amazing achievement.

Answer Key

To check the answer key, please visit:

https://docs.google.com/document/d/1A32hNIb5NIv65pEY5g5SnmSWUqU5jPfe07-_d_it1bE/edit?usp=sharing