LISTENING

A. Listen to a lecture about the history of sudoku and circle the correct answer.

(4x2.5 = 10 pts.)

1. The speaker says that Sudoku is different from other puzzles and games because it was NOT developed _____________________.
   a) in a process
   b) in one country
   c) in different versions
   d) in a very short time

2. Sudoku was given its name by _________________.
   a) Maki Kaji
   b) Howard Garns
   c) Leonhard Euler
   d) Ryan Gold

3. One of Wayne Gould’s main contributions to Sudoku was to develop a/an _________________.
   a) computer program to create puzzles
   b) new set of rules for completing puzzles
   c) online puzzle programs to challenge others
   d) mobile application for worldwide users

4. Wayne Gould managed to persuade The Times _________________.
   a) to design puzzles that he called Sudoku
   b) to produce computer programs for Sudoku
   c) to begin publishing Sudoku puzzles everyday
   d) to write daily articles about Sudoku techniques
B. Listen to students talking about lectures and fill in the notes in the table. (5x2= 10 pts.)

<table>
<thead>
<tr>
<th></th>
<th>Anna (Linguistics)</th>
<th>Greg (Chemistry)</th>
<th>Matt (Business Studies)</th>
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<tbody>
<tr>
<td><strong>1. What happens during their tutorials?</strong></td>
<td>• Go through one of the lectures they had earlier in the week.</td>
<td>• They talk about a problem related to a topic that they’ve just covered in the course.</td>
<td>• Discuss a research article on a topic related to a lecture they will have later that week.</td>
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<td><strong>2. What are they expected to do before tutorials?</strong></td>
<td>1. _______________ _______________ _______________</td>
<td>2. _______________ _______________ _______________</td>
<td>4. _______________ _______________ _______________</td>
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<td>• Identify areas that they don’t understand and get some questions ready for the tutorial.</td>
<td>• Do a bit of background reading.</td>
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<td><strong>3. What are they expected to do during tutorials?</strong></td>
<td>• Ask their questions about the areas that they don’t understand.</td>
<td>3. _______________ _______________ _______________</td>
<td>• Ask our lecturer questions about anything we haven’t understood.</td>
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<tr>
<td></td>
<td>5. _______________ _______________ _______________</td>
<td></td>
<td>• Discuss concepts and theories that are mentioned in the article</td>
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<td><strong>4. What problems do they face in tutorials?</strong></td>
<td>• One or two people do most of the talking and that can dominate things a bit.</td>
<td>• Someone else says the thing before s/he wants to say it.</td>
<td>• Taking note and trying to participate in the same time.</td>
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It started with a drawing: an old man with a green face fixed in an angry scowl. His little eyes squinted sideways, and his left hand gripped an enormous bunch of coloured balloons covered in slogans like “love” and “joy”. Look closely and you could see that he was holding them tight, the way people hold onto their dreams. Five years later that old man acquired both a name (Carl Frederickson) and a pair of square spectacles. From a simple beginning in felt-tip and crayon, he emerged as one of the highest earners in Hollywood: star of a $400m cinematic phenomenon called Up.

Up was 2009’s smash hit from Pixar, a computer animation studio doing to 21st century animation what Disney did to 20th. Pixar makes cartoons that both children and adults adore. To critics, it can do no wrong. “You have to go back to Disney in the Thirties and Forties, when they lifted audiences out of the Great Depression with Snow White, Bambi and Pinocchio, in quick succession, to get anything close,” wrote the respected film critic Tom Shone. “This is living history, right under our noses. Your grandkids will ask about this.”

Pixar never sits still. When the firm takes risks, they get big results. The studio’s 2008 film had been Wall-E, an odd love story about a garbage-eating robot. The film’s hero communicated in bleeps and clicks. Its script contained barely a word of dialogue. On paper, it should never have worked. Instead, it made $521m, and won an Oscar for Best Animation. So then we had Up. The film is part action adventure, part about the meaning of happiness, love and loss. Critics, needless to say, adored it. They laughed a lot at its subplots and raved about its supporting characters. They called it tender, thrilling, and very, very funny.

So, what is the secret of their success? Pixar Studios are in Oakland but spiritually, their home is more Silicon Valley. Round the office are pool, ping-pong and air hockey tables. Most of them are in use throughout the working day. Grown men whizz down corridors on skateboards and scooters. Ask a guide why, and he will shrug his shoulders and simply say: “Because they’re creative.” What they mean is that Pixar is a professional playground for happy, inventive people. The firm’s PR people are proud that the senior production staff on Up have been on the payroll for over a decade. They are the best in the world at what they do, and deserve everything that goes with it – from ping-pong to company yoga days.

“Most Hollywood studios are run by businessmen, says Up director, Peter Docter. “The problem with that is that if you start out on any film with the goal of simply making money, the chances are that you’re not going to make a great movie.” Pixar approaches filmmaking from the opposite direction. They take talented people, allow them to enjoy themselves, and let that childish freedom transfer on films. As a result it encourages brave ideas that might, in a normal studio environment; end up on the cutting room floor. With Up people might have said, “It won’t appeal to kids, they hate old people.” Or, “You can’t have an action adventure film that stars a 78-year-old man. But from the top, Pixar is different.” added Docter.

In Up, the creative process was more complicated than usual. The film was one of the
first major new products to be widely released in 3D in 2009. For film studios, 3D is a good investment. Pixar used the technology to add to Up’s narrative, creating a “depth script” that varied the levels of contrast in the 3D according to the storyline. “Carl, our main character, goes on an emotional journey,” said Bob Whitehill, the man responsible. “When he is a boy, his life is very rich and full, so 3D in that section is pretty deep. When he loses his wife, his life is claustrophobic, so we reduce the depth, and make everything very shallow. Then when he lifts off to go on the adventure, things deepen again.”

“In the future,” Whitehill says, “every Pixar film will be made in three dimensions.” That pioneering way of thinking – and the effect it has had on other major studios, who are putting a lot of money into their own 3D titles ensures that right now, the location where Silicon Valley meets Hollywood is an exciting place to be.

Glossary:
Adore (v): love or like sth/smb very much

A. Read the article and circle the best answer. (5x2= 10 pts.)
1. According to the first paragraph, the main character in the film Up ________.
   a) came out as an illustration  
   b) had a lot of money at first 
   c) was a loving and joyous person 
   d) changed his name after five years

2. “it” in paragraph 3 refers to ________.
   a) the firm 
   b) the film 
   c) the robot 
   d) the dialogue

3. Pete Docter suggests that ________.
   a) financial concerns may restrict the creativity 
   b) businessmen are generally good at filmmaking 
   c) old people are not appreciated in the film industry 
   d) filmmakers should take kids’ opinions into consideration

4. According to the sixth paragraph, 3D ________.
   a) came to be used in 2009 for the first time 
   b) is the main reason behind the success of Up 
   c) helped the development of the storyline in Up 
   d) is an expensive technique to be used in films

5. Which of the following can be inferred from the text?
   a) The success of a film is directly related to the company’s money. 
   b) There is only one example of a film made by using 3D techniques. 
   c) People are not interested in animated films anymore. 
   d) Film industry is going in a new direction thanks to the technology.
Painful as it is to think about, murder has become a grim fact of modern society. Solving a murder involves more than the contributions of the police and witnesses. It also involves the detailed work of people in the fields of forensic science: scientists and doctors who analyze evidence to help solve murders.

Forensic science has a colorful, if brief, history. An early case was the 1849 murder committed by a chemistry professor who had contributed large sums of money to Harvard University. In that case, pieces of bone and teeth that were found in the ashes of the professor’s laboratory furnace were used in the courtroom as evidence. In 1892, the first mysterious murder case that was solved through fingerprint evidence occurred in Argentina. In 1910, a doctor was found guilty of murdering his wife based on small piece of skin found in his basement. A scar on that skin was identified as a surgery scar the victim had had on her stomach. The doctor was hanged.

Today the evidence of forensic science ranges from footprints to blood samples, from hair analyses to identification of bite marks. The forensic scientists’ work begins at the scene of the crime, and their first piece of evidence is a body – a dead body. Before the body is removed to the morgue, the location of every item of the scene is diagrammed, and then the search is begun for physical evidence that could identify the killer. The killer could have left saliva on a cigarette butt, a good set of fingerprints on a glass, hairs on a hat, or blood from a cut on any surface. Once the possible sources of evidence are identified, investigators must be careful to protect them, as all too easily, evidence may be gone if someone flushes the toilet. Likewise, if a police officer picks up the telephone at the scene of the crime, the fingerprint evidence may disappear.

The next step is the medical examination, and an examiner will arrive at the scene to confirm the death and check the body for injuries. The body will then be shipped to the morgue, where a forensic autopsy will be performed. This procedure involves close examination of both the outside and inside of the body. The specialist will study the hands and face for signs that a fight took place and will remove any evidence, such as a bullet, that is in the body. He or she will also send samples of body organs to the laboratory to see if the victim took any drugs.

Besides testing the body for evidence, forensic technicians must also analyze all evidence the police have collected from the scene. If the murder involved a shooting, ballistics experts – specialists in firearms and ammunition – will also be involved in the investigation. Using a microscope, they will try to match bullets taken from the scene with any bullet holes found, and they will also try to identify the gun. A gun leaves unique marks on bullets fired from it; in fact, marks on two bullets from the same gun are as alike as two prints from the same finger. In addition, experts will examine any gunpowder found around a bullet hole to see how far away the gun was when it was fired. By examining the gunpowder, they will also try to identify where the gun came from and on what day it was sold.

It is common knowledge that fingerprints can be traced to an individual person; likewise, footprints can be used. “There are 46 points of measurement and 120 points to examine for shape,” says anthropologist Louise Robbins. Footprints can also be found in people’s shoes, and scientists like Robbins help the police match a shoe to its wearer. Hair, too, can be matched with increasing accuracy. People’s hair can differ in color, texture, thickness, and 20 other characteristics. “The hair is the garbage can of the body,” says forensic scientist Dr. Robert Shaler. “Everything you eat shows up there.” Since hair grows one millimeter a day, an analysis can tell if the victim took aspirin yesterday and drank beer from an aluminum can a week ago.

Perhaps the most exciting area of forensic science is the testing of blood samples, called serology. Recent developments have produced tests that can detect inherited characteristics in the blood and even a suspect’s disease history. The tests are so specific that they can even tell the difference between identical twins who have
had different diseases. Murder is a dreadful business indeed, but let the murderer beware. The findings that come out of a forensic scientist’s work may be very dramatic and revealing.

**Glossary:**
- **Fingerprint (n):** the pattern of curved lines on the end of a finger or thumb that is different in every person, or a mark left by this pattern.

**B. Read the article and answer the questions according to the article. (5x1= 5 pts.)**

1. What is the definition of forensic science?
   
   ________________________________________________________

2. What evidence linked the chemistry professor to the murder he had committed?
   
   ________________________________________________________

3. Why are samples of a victim’s organs examined in the laboratory?
   
   ________________________________________________________

4. By examining gunpowder, what can experts find out? (Write ONE of them)
   
   ________________________________________________________

5. According to the article, what can an expert find out analyzing hair?
   
   ________________________________________________________

**C. Read the article again and complete the sentences with the words from the box. There are two EXTRA words. (5x1= 5 pts.)**

<table>
<thead>
<tr>
<th>unique</th>
<th>accuracy</th>
<th>range</th>
<th>contribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>identify</td>
<td>mysterious</td>
<td>confirm</td>
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1. Paying attention to individual differences can help you __________________ birds, too. You can recognize many birds simply by noting their shapes, even if seen only in silhouette.

2. The restaurant has different menus which __________________ from the good old fashioned steak to seafood. The staff is very friendly and warm and eager to assist in any way. If you are looking for a place hide from the world, then The Sarova Hotel is the place to go!

3. DNA fingerprinting, or DNA profiling is a way of identifying the DNA content of the individual. Fingerprints are __________________ to the individual so even identical twins have different fingerprints.

4. On Friday, Manchester United tried to __________________ the transfer arrival of Zlatan Ibrahimovic. His football club, Paris Saint-Germain, did not want to send him to another big football club so they slowed down the transfer process.

5. Albert Einstein's greatest __________________ to the world was his theory of relativity in which he described new ways of looking at time, space, matter, energy and gravity. His works also provided the basis for advances such as the control of atomic energy, space exploration and applications of light.
A. Circle the best option. (10x1= 10 pts.)

The Truth about the Titanic

The sinking of the Titanic on its first voyage has fascinated people all over the world for nearly a hundred years. It is a story of mystery and speculation. According to its outdated regulations, the Titanic only (1) _______ sixteen lifeboats, enough to save about 962 people, (2) _______ was ridiculous as the ship could carry 3,511 people. If the Titanic had had enough lifeboats for all the passengers, nobody would have died on April 14th 1912.

A small ship called the Californian was only 20 kilometres away from the Titanic. It had stopped for the night due to icebergs. It was (3) _______ near that the two ships could see each other’s signals. However, the radio operator didn’t hear the Titanic’s S.O.S message, because he (4) _______ to bed by the time the Titanic signalled for help. Later, sailors saw the Titanic’s eight white rockets in the sky. They woke up their captain but he didn’t do anything (5) _______ he didn’t think the rockets were important. This brought the Titanic to its end. Today, everybody wishes that the Californian paid attention to those rockets; then, many people may have been rescued.

Though they had received several warnings of icebergs from other ships in the area, the Titanic was going at top speed. The captain of the Titanic, like other captains, was (6) _______ great commercial pressure to make the Atlantic crossing as quickly as possible.

In the confusion of the evacuation, many lifeboats left the Titanic half empty. This was partly because Captain Smith and his crew found it difficult to persuade people to leave the ‘unsinkable’ Titanic. Many were (7) _______ at the idea of being lowered down into the sea in a tiny lifeboat. When the Titanic finally sank, some of the passengers in the lifeboats wanted to go back and rescue some of the people swimming in the freezing water. But other people in the lifeboats argued that if too many people in the water tried to get into the lifeboats, the boats could overturn and everybody might drown. Finally only one of the sixteen lifeboats went back to take survivors. They only managed to rescue five people. Everyone else was dead, including the amazing band musicians who carried on playing (8) _______ the passengers calm all the way up till they and the ship disappeared beneath the waves.

The Titanic sank 100 years ago but interest in it still continues. Books and movies keep its memory alive. Recently, the 3D version of James Cameron’s 1997 movie was in the theatres of 71 different countries and within just 10 days, 53,508 people watched it again. In fact, history is full of wreckages but none of them has fascinated people like the Titanic. If it hadn’t sunk so tragically, people (9) _______ so interested in it now.

Since its sinking in 1912, the story of Titanic has been a fascinating topic for many people, and it seems very likely that, by 2112, we (10) _______ about it for two centuries. Maybe the reason is because the Titanic will forever remain an endless mystery.
1. a) has to have  b) had to have  c) should have had  d) must have had
2. a) who  b) that  c) whose  d) which
3. a) so  b) too  c) very  d) such
4. a) went  b) has gone  c) had gone  d) was going
5. a) as  b) yet  c) once  d) those
6. a) in  b) with  c) over  d) under
7. a) horrific  b) horrified  c) horrifying  d) horrifically
8. a) keep  b) to keep  c) keeping  d) to keeping
9. a) will not be  b) would not be  c) will not have been  d) would not have been
10. a) will talk  b) are going to talk  c) are talking  d) will have been talking

B. Rewrite the sentences so that they have the same meaning. Use the words in brackets. (5x1= 5 pts.)

1. Sarah asked him “Does your family live here?”       (lived)
Sarah asked__________________________________________________________________.

2. Rob is always late. He doesn’t have a watch.       (if)
Rob _______________________________________________________________________.

Paris ______________________________________________________________________.

4. Car travel is not as convenient as air travel.         (less)
Car travel ___________________________________________________________________.

5. Aziz Sancar received a Nobel Prize from the Swedish King. After that, he made a speech.   (before)
Aziz Sancar _________________________________________________________________.
C. Choose the best option. (5x0,5= 2.5pts)

1. The expert promised to restore the statue like the original. However, I think he will _______ it into a totally different thing at the end.
   a) transform   b) design   c) inspire   d) base

2. *Interstellar* won the award for the best _______ and I believe the film deserved it with those spaceships, black holes, time travel etc.
   a) extras   b) subtitle   c) cast   d) special effects

3. The house looks old but cozy. It has a ___________ and we can have beautiful, romantic meals in front of it. It is going to be great if we rent it.
   a) chimney   b) fireplace   c) terrace   d) basement

4. After her mother and father's death, their young daughter was sent to her aunt’s house to live, but we think she isn’t experienced enough to _____ that child until she is 18.
   a) behave   b) bring up   c) operate   d) grow up

5. Two days ago, I saw the play called *the Personnel*. It was simply _______. The players were very talented and the topic was interesting. You must see it!
   a) outstanding   b) skeptical   c) controversial   d) ambitious

D. Complete the sentences with the correct form of the BOLD word next to the sentence. (5x0,5= 2.5pts)

1. There was a long queue in front of the theatre and the audience was waiting there for a long time. Also, it was raining. So they were getting _______________ and many people among the audience started to complain by shouting at the box officers.  --> *PATIENT*

2. Sally got really angry but didn't say a single word. All John wanted was a short _______________ from her about their future.  --> *RESPOND*

3. After a three-hour meeting, finally, they reached an _______________ about the place where they were going to construct the bulding for the new shopping mall.  --> *AGREE*

4. I couldn’t find any notes for the upcoming exam in geography. _______________, my roommate offered to help me with that this evening. I am very happy.  --> *LUCK*

5. Our holiday was completely fantastic, but my only _______________ was the receptionist's behavior to us. He was quite rude and mean to us.  --> *COMPLAIN*