|  |  |
| --- | --- |
| **SỞ GIÁO DỤC VÀ ĐÀO TẠO BÌNH ĐỊNH** **TRƯỜNG THPT CHUYÊN LÊ QUÝ ĐÔN** | **ĐỀ THI ĐỀ XUẤT KỲ THI HSG** **DUYÊN HẢI VÀ ĐỒNG BẰNG BẮC BỘ** **Lần thứ xIV** **MÔN: TIẾNG ANH - KHỐI 11****Thời gian: 180 phút*****Đề thi gồm: … trang*** |

**SECTION A. LISTENING (50 points)**

**Part 1. *You are going to hear part of a radio programme. Choose the correct answers for each question. Write your answers in the corresponding numbered boxes. (10 points)***

**1.** The interior of the launderette can best be described as \_\_\_\_\_\_.

 A. warm and cheerful B.harshly-lit and draughty

 C. modern and well-designed D. crowded and uncomfortable

**2.** The reason Mrs White gives for coming to the launderette is that \_\_\_\_\_.

 A. she needs a rest from her housework B. she has a large amount of washing to do

 C. she can’t afford a washing machine D. she finds the companionship consoling

**3.** May and Burnie’s position is that of \_\_\_\_\_\_.

 A. part-time supervisors B. full-time supervisors

 C. temporary supervisors D. owner-supervisors

**4.** One of the attendant’s duties is to \_\_\_\_\_\_.

 A. replace faulty machines B. prevent children from using the machines

 C. make sure the machines are used correctly D. clean the machines regularly

**5.** When they bring their washing to the launderette, some customers also \_\_\_\_\_\_.

 A. talk freely about their problems B. bring their clothes for mending

 C. ask for advice about their cleaning D. help the attendants with their work

**Your answers**:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **1.** | **2.** | **3.**  | **4.** | **5.** |

**Part 2. *You will hear part of a lecture on satellites. Listen and and decide whether the following statements are* *true (T) or false (F)*. *Write your answers in the  corresponding numbered boxes. (10 points)***

**1.** American scientists launched the first man-made satellite in human history into space on February 1st, 1958.

**2.** Deposits of minerals, oil and natural gas could be found by scientists through utilisation of satellites.

**3.** Television programmes could not be seen simultaneously all over the world without the use of satellites.

**4.** American space shuttle Challenger exploded during a mission in January 1986, only one astronaut survived.

**5.** ESA, built by ten European countries together, launched their first rocket, the Ariane L3S, in 1979.

**Your answers**:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **1.** | **2.** | **3.**  | **4.** | **5.** |

**Part 3. *You will hear a phone call between a mother and her daughter. Listen and answer the  questions. Write NO MORE THAN THREE WORDS taken from the recording for each answer in the corresponding numbered boxes. (10 points)***

**1.** What’s the time of the year now?

**2.** What happened during the trip for Jane from her home to the vacation spot?

**3.** How long is her vacation?

**4.** When will she come back home?

**5.** Why isn’t John feeling very well?

**Your answers**:

|  |  |
| --- | --- |
| **1.** |  |
| **2** |  |
| **3.** |  |
| **4.** |  |
| **5** |  |

**Part 4. Y*ou will hear an announcement on the radio inviting people to take part in a tree-planting project. Complete the summary by writing NO MORE THAN THREE WORDS and/or A  NUMBER in each gap. Write your answers in the corresponding numbered boxes. (20 points)***

TREE PLANTING

The Green Partnership is organizing a **(1)** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ near Middleton, England, to conserve the natural environment and make it easier for people **(2)** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to spend their free time in the countryside. The project aims to plant seven to eight thousand trees over the next few weeks, with **(3)** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ on hand to direct operations and provided equipment. The site, located on the western edge of Middleton, is expected to be muddy and requires **(4)** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to help. The government has made money available for the project, and around **(5)** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ have been identified in the region. The trees will take up to **(6)** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to grow, so the site is planned to have **(7)** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ between the trees, allowing people to walk through and watch the **(8)** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. The event is open to everyone from nine to three o'clock, and **(9)** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ will not be available along the busy road to the west. Participants should **(10)** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ , put on boots, and use gloves to protect their hands. Families will have a fantastic time at the event, and the volunteers are encouraged to participate.

**Your answers**:

|  |  |  |  |
| --- | --- | --- | --- |
| **1.** |  | **2.** |  |
| **3.** |  | **4.** |  |
| **5.** |  | **6.** |  |
| **7.** |  | **8.** |  |
| **9** |  | **10.** |  |

**SECTION B. LEXICO-GRAMMAR (30 POINTS)**

**Part 1. *Choose the word or phrase (A, B, C or D) which best completes each sentence. Write your answers in the corresponding numbered boxes. (20 points)***

**1.**He has achieved \_\_\_\_\_\_ success as a computer programmer, inventor and entrepreneur.

 A. receding B. staggering C. plummeting D. bantering

**2.** The manager felt nervous, but the whole plan went off \_\_\_\_\_\_.

 A. without fail B. without question C. without a hitch D. without number

**3.** It was alarming the way the young girl got so \_\_\_\_\_\_ about trivial things.

 A. packed up B. botched up C. dried up D. fired up

**4.** We \_\_\_\_\_\_ into our uniform because nobody else has.

 A. needn’t have changed B. can’t have changed

 C. won’t have changed D. couldn’t have changed

**5.** The \_\_\_\_\_\_ programme provides the elderly citizens with access to support and home care.

 A. betterment B. outreach C. minority D. expansion

**6.** The environmental awareness campaign has produced \_\_\_\_\_\_ results; people are gradually changing their behaviour.

 A. fundamental B. impending C. sustainable D. tangible

**7.** \_\_\_\_\_\_ the ebook is a huge success, we will continue to offer the printed version.

 A. Only if B. What if C. Even if D. As if

**8.** When you first learn about computers, there is a whole lot of \_\_\_\_\_\_ to understand.

 A. jargon B. prose C. jingle D. chorus

**9.** The game employs \_\_\_\_\_\_ reality and is played outdoors via smartphones.

 A. amplified B. supplemented C. strengthened D. augmented

**10.** Their latest track record has, \_\_\_\_\_\_, been a positive one.

 A. in the flesh B. in the dark C. in the main D. in the clear

**11.** This campaign is believed \_\_\_\_\_\_ in this region two months ago.

 A. to launch B. being launched

 C. to have been launched D. having been launched

**12.** The fire-fighter received a medal for his action which went \_\_\_\_\_\_ the call of duty.

 A. above and beyond B. out and out C. on and off D. down and out

**13.** There are not secret negotiations. Our dealings have always been \_\_\_\_\_\_.

 A. above water B. above board C. above average D. above surface

**14.** I became an interpreter more by accident than \_\_\_\_\_\_; nobody else could speak the language of the refugees.

 A. design B. intention C. purpose D. interest

**15.** Our products will have to be more innovative if we want to stay ahead of \_\_\_\_\_\_.

 A. the pack B. the herd C. the flock D. the shoal

**16.** I had been looking for my keys for some time before I realized they had been in my pocket \_\_\_\_\_\_.

 A. all inside B. all around C.all along D. all about

**17.** The final choice was made yesterday, so don’t argue \_\_\_\_\_\_ now!

 A. the order B. the toss C. the choice D. the option

**18.** The \_\_\_\_\_\_ intention of the new government is to reduce unemployment.

 A. attuned B. appalled C. assorted D. avowed

**19.** I don’t need the exact amount. Just give me a \_\_\_\_\_\_ calculation.

 A. back-of-the-envelope B. back-of-the-hand C. back-of-the-book D. back-of-the-house

**20.** \_\_\_\_\_\_ his CV over a month ago, Tim should have received a reply by now.

 A. Having been sent B. Being sent C. Sending D. Having sent

**Your answers**:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **1.** | **2.** | **3.**  | **4.** | **5.** |
| **6.** | **7.** | **8.**  | **9.**  | **10.** |
| **11.** | **12.** | **13.** | **14.** | **15.** |
| **16.** | **17.** | **18.** | **19.** | **20.** |

**Part 2. *Fill in the gaps in the following sentences with the correct form of the words in brackets. Write your answers in the corresponding numbered boxes. (10 points)***

1. Democracy died after a period of \_\_\_\_\_\_\_\_(CEASE) wars, imperial expansion abroad, and the rise of demagoguery at home.

2. The consequences of \_\_\_\_\_\_\_\_ (COMPEL) gambling are comparable to those of any other addictive disease and are not simply those of financial loss.

3. The prison service has the twin goals of punishment and \_\_\_\_\_\_\_\_ (HABIT).

4. The first \_\_\_\_\_\_\_\_ (CONCEIVE) is that legal study at university is exclusively for students who intend becoming solicitors or advocates.

5. Too late, she remembered the \_\_\_\_\_\_\_\_ (SETTLE) effect such comments would have on Johnny.

6. Some economists are now predicting the danger of \_\_\_\_\_\_\_\_ (RUN) inflation.

7. The \_\_\_\_\_\_\_\_ (NARRATE) in this book plays second fiddle to the excellent photographs.

8. They were now faced with seemingly\_\_\_\_\_\_\_\_(MOUNT) technical problems.

9. When you come down on him too hard, you may only intensify his own \_\_\_\_\_\_\_\_ (CRITIC)

10. Your speech should not have been \_\_\_\_\_\_\_\_ (LACE) with these facts beside the point.

**Your answers**:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **1.** | **2.** | **3.**  | **4.** | **5.** |
| **6.** | **7.** | **8.**  | **9.**  | **10.** |

**SECTION C. READING (60 PTS)**

**Part 1. *In the passage below, seven paragraphs have been removed. For questions 1-7, read the passage and choose from the paragraphs A-H the one which fits each gap. There is ONE extra paragraph which you do not need to use. Write your answers in the corresponding numbered box provided. (7pts)***

 Mathematical Games The majority of video games designed to provide mathematics learning fail educationally for one of two reasons. One of these is that the designers know how to design and create video games but know little about mathematics education (in particular, how people learn mathematics) and in many cases don't seem to know what maths really is. The second is that they have a reasonable sense of mathematics and have some familiarity with the basic principles of mathematics education, but do not have sufficient education in video game design.

**1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

To create an engaging game that also supports good mathematics learning requires a great deal more: a complete understanding of what mathematics is, how and why people learn and do mathematics, how to get and keep them engaged in their learning and how to represent the mathematics on the platform on which the game will be played. That too demands much more than just superficial knowledge.

**2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

Following the tradition of textbook publishing, that figure does not include any payment to the authors who essentially create the entire pedagogic framework and content. Nor does it take into account the money required for the fees payable to the project's academic advisory board, without whom the project is unlikely to succeed.

 **3. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

Though this term is specific to this context, its concept has been well known in maths education circles for over twenty years and is recognised as the biggest obstacle to practical mastery of middle school mathematics. To understand the precise implication of what the term entails and appreciate how pervasive it is, it is necessary to examine the role symbolic expressions play in mathematics.

**4. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

But just how essential are those symbols? Perhaps this question can best be answered through a comparison with music. Until the invention of recording devices, symbolic musical notation was the only way to store and distribute music, yet no one ever confuses music with a musical score. In the same way as music is created and enjoyed within the mind, mathematics is created and carried out in the mind. At its heart, mathematics is a mental activity and one that throughout human history has proved to be highly beneficial to life and society.

**5. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

So, why is it that many people believe mathematics itself is symbolic manipulation? And if the answer is that it results from our classroom experiences, why is mathematics taught that way? The answer to that second question is that mathematics is taught symbolically because for many centuries symbolic representation has been the most effective way to record mathematics and pass on mathematical knowledge to others.

**6. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

While it is true to say that people sometimes scribble down symbols when they do everyday maths in a real-life context, for the most part, what they write down are the facts needed to start with, perhaps the intermediate results along the way and, if they get far enough, the final answer at the end. But the actual mathematical part is primarily a thinking process as even when people are asked to 'show all their work', the collection of symbolic expressions they write down is not necessarily the same as the process that goes on in their minds when they do the maths correctly. In fact, people can become highly skilled at doing mental mathematics and yet be hopeless at its symbolic representations.

**7. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

It is simply not the case that ordinary people cannot do everyday maths. Rather, they cannot do symbolic everyday maths. From this observation, it can be concluded that the symbol barrier is huge and pervasive. For the entire history of organised mathematics instruction, where there has been no alternative to using static, symbolic expressions on flat surfaces to store and distribute mathematical knowledge, that barrier has prevented millions of people from becoming proficient in a cognitive skill set on a par in importance with the ability to read and write.

**A.** So, given the effort and expense to make a maths game, is it worth pursuing? From an educational perspective, it certainly is. That being said, it must be acknowledged that the vast majority of maths video games on the market essentially capitalise on just one educationally important aspect of video games - their power to fully engage players in a single activity for long periods of time. Only a fraction of them take advantage of another educationally powerful feature of the medium - their ability to overcome the 'symbol barrier'.

**B.** With routine mathematics, the symbolic barrier emerges. In their 1993 book Street Mathematics and School Mathematics Terezinha Nunes, David William Carraher and Analucia Dias Schliemann describe research conducted in the street markets of Recife, Brazil. This and other studies have shown that when people are regularly faced with everyday mathematics in their daily lives, they master it to an astonishing 98 per cent accuracy. Yet when faced with the very same problems (from a mathematical perspective) presented in the traditional symbols, their performance drops to a mere 35 to 40 per cent accuracy.

**C.** In both these subjects, the symbols are merely static representations on a flat surface of dynamic mental processes. Just as the trained musician can look at a musical score and hear the music come alive in his or her head, the trained mathematician can look at a page of symbolic mathematics and have that mathematics come alive in the mind.

**D.** In other words, designing and building a good mathematics educational video game, whether it is a massively multiplayer online game (MMO) or a single smartphone app, requires a team of experts from several different disciplines. That means it takes a lot of time and a substantial budget. For a simple-looking, casual game that runs on an iPad, it can take about nine months from start to finish and cost upwards of a quarter of a million.

**E.** Yet tens of thousands of years of evolution have produced the most adaptive device on the planet: the human brain. Trying to design a computer system to adapt to human cognitive activity is like trying to build a cart that will draw a horse. It can be done, but it will not work nearly as well as building a cart that a horse can pull.

**F.** To build a successful video game requires an understanding, at a deep level, of what constitutes a game, how and why people play games, what holds their attention, and how they interact with the different platforms on which the game will be played. That is a lot of deep knowledge.

**G.** By and large, the public identifies doing maths with writing symbols, often obscure symbols. Why do people readily make this identification? A large part of the explanation is that much of the time they spent in the school mathematics classroom was devoted to the development of correct symbolic manipulation skills, and symbol-filled books are the standard way to store and distribute mathematical knowledge. So we have become used to the fact that mathematics is presented by way of symbolic expressions.

**H.** Still, given the comparison with music, is it possible to break free of that historical legacy? It would appear that it is, as long as a distinction is made between the advanced mathematics used by scientists and engineers and the kind of maths important to ordinary people. Advanced mathematics, on the other hand, is intrinsically symbolic, whereas everyday maths is not and such activities as counting, proportional reasoning and problem solving can be done mentally.

**Your answers**:

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **1.** | **2.** | **3.**  | **4.** | **5.** | **6.** | **7.** |

**Part 2. *Fill in each blank in the following passage with ONE suitable word. Number 0 has been done as an example. Write your answers in the corresponding numbered boxes on the  answer sheet. (15 points)***

The game of solving difficult puzzles has always filled people with the feeling of a profound excitement. No **(1)** \_\_\_\_\_\_, then, that the fascination of treasure hunting has invariably been associated with the possibility of realising the most improbable dreams. According to what the psychologists claim, there is a little boy in every treasure hunter. Yet, the chase of hidden valuables has recently become a serious venture with amateur and professional seekers equipped with highly sophisticated **(2)** \_\_\_\_\_\_ like metal detectors, radars, sonars or underwater cameras. What **(3)** \_\_\_\_\_\_ the adrenaline level in these treasure - obsessed fanatics are legends, myths, old maps and other variety of clues promising immeasurable fortunes **(4)** \_\_\_\_\_\_ beneath the eath's surface or drowned in the ancient galleys. For many reassure hunters the struggle of hint searching is even more stimulating than digging out a treasure **(5)** \_\_\_\_\_\_ composed of golden or silver objects, jewellery and other priceless artefacts. The job **(6)** \_\_\_\_\_\_, however, extremely strenuous as even the most puzzling clues must be thoroughly analysed. Failures and misinterpretations **(7)** \_\_\_\_\_\_ quite frequently, too. Yet, **(8)** \_\_\_\_\_\_ the most unlikely clue or the smallest find is enough to reinforce the hunter's self - confidence and passion. Indeed, the delight in treasure finding doesn't always depend on acquiring tremendous amounts of valuables. **(9)** \_\_\_\_\_\_ is detected, be it a rusty sundial or a marble statue, brings joy and reward **(10)** \_\_\_\_\_\_ a long and exhausting search.

**Your answers**:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **1.** | **2.** | **3.**  | **4.** | **5.** |
| **6.** | **7.** | **8.**  | **9.**  | **10.** |

**Part 3. *Read the text, identify which section A–D each of the following is mentioned. Write ONE letter A–D in the corresponding numbered boxes. Each letter may be used more than once. (15 points)***

**LOCKED IN TIME**

***What are the issues surrounding the preservation of good architecture?***

**A.** Emerging from the Lincoln tunnel into midtown Manhattan in New York, a yellow cab from JFK Airport takes you past an architectural masterpiece, Number 510 Fifth Avenue was originally the Manufacturers Hanover Trust Bank and was designed in 1954 as a new kind of banking house, something other than a thick-walled fortress. It was a glass temple of finance, inviting passers-by to step through its cool transparency and be converted to its gleaming vision of the future. Mid-twentieth-century banks were usually mundane but at 510 Fifth Avenue, the vault was displayed behind the glazed facade and the escalators became central to the composition, falling and rising diagonally across the gridded lines like an updated game of snakes and ladders. The upper floor featured a gilded screen by the artist Harry Bertoia.

**B.** But things are changing at 510 Fifth Avenue. As a very carefully-designed and much-admired building, it now finds itself at the frontier between developers and preservationists and it's turning into quite a fight. For if there's one thing in architecture that causes friction, it's that our needs change, and so buildings must evolve and adapt in order to stay useful. Within reason, Vornado Realty Trust, the site's owners and one of New York's largest developers, has made the not unreasonable assumption that this commercial building on the world's primary shopping street should be adapted to suit its new tenant, a retailer of lumberjack-style shirts. For this purpose, the gilded screen has been dismantled, the entrance is to be moved, the escalator reversed and the vault moved. On the basis that the facades remain intact, the Landmarks Preservation Commission approved these changes in April. But in July, a judge halted work after a legal challenge by the Citizens' Emergency Committee to Preserve Preservation, which argues that, given the transparency of the facade, Landmark status must extend to those interior features that contribute to the streetscape. Too late. It is now gutted, the interior features broken from their positions of more than half a century.

**C.** Architects are often feted for designing buildings whose form follows function. And that's reasonable - intelligent design brings intellectual and physical beauty to the world. But architects are no better at predicting the future than the rest of us. Hence, the flip side to architectural masterpieces: the closer a building's form follows its function, the bigger the upheaval when the original purpose no longer needs to be served. Preservation groups are aware that conservation is an expensive business. Arguments to preserve for preservation's sake are weakened when loans are in short supply and the economic buoyancy that might offer a long-term business case for the sensitive commercial usage of old buildings starts to sink. The stronger argument is to update historic places so they can fund themselves. In any repurposing of a historic building, something has to give. And it usually gives in the direction of apartments, shops, restaurants or art galleries. It's a global picture.

**D.** The most exciting new place in New York is the High Line, built as an elevated railway through the Meatpacking District and unused since the 1980s. It was scheduled to be torn down, but local residents started a grass-roots movement in 1999. Three years on, they gained the authorities' support for a radical redevelopment as a city garden, a string of improbable greenery threading through an overlooked quarter that has since spread economic fertiliser in its wake with hotels, boutiques and bars abounding. Back in Fifth Avenue, there's much hand-wringing over the stripped modern icon. Is it too late to hope the perfect tenant will turn up and want to strike a deal? If it's not to change further, who will put it back together, take care of it and run it as ... what - an icon?

**In which section does the writer mention Your answers:**

|  |  |
| --- | --- |
| the idea that a preservation project can regenerate the surrounding area? | **1.** |
| why a particular structure stood out amongst its contemporaries?  | **2.** |
| the inescapable need to make compromises when structures find a new use?  | **3.** |
| a successful attempt to halt the total destruction of an obsolete structure?  | **4.** |
| a paradox regarding the work of highly renowned architects?  | **5.** |
| an approach to saving the architectural heritage that cannot always be financed? | **6.** |
| how an architect made a feature of something which is usually obscured?  | **7.** |
| a disagreement about how a principle should be applied in practice?  | **8.** |
| a structure that embodied the optimism of its time?  | **9.** |
| a feeling that alterations to a structure were justifiable?  | **10.** |

**Your answers**:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **1.** | **2.** | **3.**  | **4.** | **5.** |
| **6.** | **7.** | **8.**  | **9.**  | **10.** |

**Part 4. *Choose the correct heading for each paragraph (1-5) from the list of headings below (i-x). There are more headings than paragraphs so you will not use all of them.***

***Paragraphs B and G have been done for you as examples. ( 10 points)***

|  |
| --- |
| **List of Headings****i**. Disobeying FAA regulations**ii**. Aviation disaster prompts action**iii**. Two coincidental developments**iv**. Setting altitude zones**v**. An oversimplified view**vi**. Controlling pilots’ licences**vii**. Defining airspace categories**viii**. Setting rules to weather conditions**ix**. Taking off safely**x**. First steps towards ATC |

**Example 1: Answer**

 **Paragraph B x**

1. Paragraph A

2. Paragraph C

3. Paragraph D

4. Paragraph E

5. Paragraph F

**Example 2: Answer**

 **Paragraph G vii**

**AIR TRAFFIC CONTROL IN THE USA**

**A**. An accident that occurred in the skies over the Grand Canyon in 1956 resulted in the establishment of the Federal Aviation Administration (FAA) to regulate and oversee the operation of aircraft in the skies over the United States, which were becoming quite congested. The resulting structure of air traffic control has greatly increased the safety of flight in the United States, and similar air traffic control procedures are also in place over much of the rest of the world.

**B**. Rudimentary air traffic control (ATC) existed well before the Grand Canyon disaster. As early as the 1920s, the earliest air traffic controllers manually guided aircraft in the vicinity of the airports, using lights and flags, white beacons and flashing lights were placed along cross-country routes to establish the earliest airways. However, this purely visual system was useless in bad weather, and, by the 1930s, radio communication was coming into use for ATC. The first region to have something approximating today’s ATC was New York City, with other major metropolitan areas following soon after.

**C**. In the 1940s, ATC centres could and did take advantage of the newly developed radar and improved radio communication brought about by the Second World War, but the system remained rudimentary. It was only after the creation of the FAA that full-scale regulation of America’s airspace took place, and this was fortuitous, for the advent of the jet engine suddenly resulted in a large number of very fast planes, reducing pilots’ margin of error and practically demanding some set of rules to keep everyone well separated and operating safely in the air.

**D**. Many people think that ATC consists of a row of controllers sitting in front of their radar screens at the nation’s airports, telling arriving and departing traffic what to do. This is a very incomplete part of the picture. The FAA realised that the airspace over the United States would at any time have many different kinds of planes, flying for many different purposes, in a variety of weather conditions, and the same kind of structure was needed to accommodate all of them.

**E**. To meet this challenge, the following elements were put into effect. First, ATC extends over virtually the entire United States. In general, from 365m above the ground and higher, the entire country is blanketed by controlled airspace. In certain areas, mainly near airports, controlled airspace extends down to 215m around the ground, and, in the immediate vicinity of an airport, all the way down to the surface. Controlled airspace is that airspace in which FAA regulations apply. Elsewhere, in uncontrolled airspace, pilots are bound by fewer regulations. In this way, the recreational pilot who simply wishes to go flying for a while without all the restrictions imposed by the FAA has only to stay in uncontrolled airspace, below 365m, while the pilot who does want the protection afforded by ATC can easily enter the controlled airspace.

**F**. The FAA then recognized two types of operating environments. In good meteorological conditions, flying would be permitted under Visual Flight Rules (VFR), which suggests a strong reliance on visual cues to maintain an acceptable level of safety. Poor visibility necessitated a set of Instrumental Flight Rules (IFR), under which the pilot relied on altitude and navigational information provided by the plane’s instrument panel to fly safely. On a clear day, a pilot in controlled airspace can choose a VFR or IFR flight plan, and the FAA regulations were devised in a way which accommodates both VFR and IFR operations in the same airspace. However, a pilot can only choose to fly IFR if they possess an instrument rating which is above and beyond the basic pilot’s license that must also be held.

**G**. Controlled airspace is divided into several different types, designated by letters of the alphabet. Uncontrolled airspace is designated Class F, while controlled airspace below 5,490m is designated Class A. The reason for the division of Class E and Class A airspace is where one finds general aviation aircraft (few of which can climb above 5,490m anyway), and commercial turboprop aircraft. Above 5,490m is the realm of the heavy jets, since jet engines operate more efficiently at higher altitudes. The difference between Class E and A airspace is that in Class A, all operations are IFR, and pilots must be instrument-rated, that is, skilled and licensed in aircraft instrumentation. This is because ATC control of the entire space is essential. Three other types of airspace, Classes D, C and B, govern the vicinity of airports. These correspond roughly to small municipal, medium-sized metropolitan and major metropolitan airports respectively, and encompass an increasingly rigorous set of regulations. For example, all a VFR pilot has to do to enter Class C airspace is establish two-way radio contact with ATC. No explicit permission from ATC to enter is needed, although the pilot must continue to obey all regulations governing VFR flight. To enter Class B airspace, such as on approach to a major metropolitan airport, an explicit ATC clearance is required. The private pilot who cruises without permission into this airspace risks losing their license.

 (*Extracted from “****Expert on Cambridge IELTS 3”***)

**Your answers**:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **1.** | **2.** | **3.**  | **4.** | **5.** |

***Do the following statements agree with the views of the writer in the reading passage?***

***Write in the corresponding numbered boxes (3 points)***

**YES (Y)** if the statement agrees with the information given in the passage

**NO (N)** if the statement contradicts the information given in the passage

**NO INFORMATION (NI)** if there is no information on this in the passage

**1**. The FAA was created as a result of the introduction of the jet engine.

**2**. Beacons and flashing lights are still used by ATC today.

**3**. Some improvements were made in radio communication during World War II.

**Your answers**:

|  |  |  |
| --- | --- | --- |
| **1.** | **2.** | **3.**  |

**Part 5: *Read the following passage and choose the answer A, B, C or D which you think fits best according to the text. Write your answers in the corresponding numbered boxes. (10 points)***

HOW MEMORY WORKS

Memory is the brain's ability to store and retrieve information related to previous experiences. Memory occurs in two stages: short-term and long-term. Short-term memory reflects an immediate sensory perception of an object or idea that occurs before the image is stored. Short-term memory enables you to dial a telephone number after looking it up but without looking at the number directly. If you call the number frequently, it becomes stored in long-term memory and can be recalled several weeks after you originally looked it up. Short-term memory and long-term memory can be thought of as memory structures, each varying as to how much information it can hold and for how long.

Memory relies on the ability to process information. Information processing begins with the environmental stimuli that you see, hear, smell, taste, and feel. These experiences are initially recorded in the brain's sensory register, which holds information just long enough (one to three seconds) for you to decide whether to process it further. Information that you do not selectively **attend to** will disappear from the system. However, if you recognise and attend to the information as meaningful or relevant, it is sent to short-term memory. Short-term memory can hold approximately seven unrelated bits of information at a time.

Short-term memory is often called working memory because it holds information that you are working with at a given moment, but only for about 20 seconds. Then, unless the information is processed further, it is quickly forgotten. For example, if you were asked to dial an unfamiliar telephone number, received a busy signal, and were then distracted by something else for 20 seconds, you probably would have forgotten the number at that point. Unless information in short-term memory is processed further, it does not **make it to** long-term memory.

Several control processes enable the transfer of information from short-term to long-term memory. One such process is rehearsal, or "practice makes perfect." Rehearsal is when you repeat something to yourself over and over. **The purpose behind such behaviour is usually to memorise information for later use, although sometimes it is simply to hold information in short-term memory for immediate use.** For example, you may rehearse a telephone number by saying it aloud so you can redial it after getting a busy signal without having to look it up again in the phone book. Another process that enables the transfer of information to long-term memory is the association of new data with data previously learned and stored in long-term memory. Thus, it is easier to learn a new card game if you already have "**card sense**" from playing other games.

For cognitive psychologists, long-term memory is the most interesting of the memory structures, and most believe that the storage capacity of long-term memory is unlimited and contains a permanent record of everything you have learned. Long-term memory plays an influential role throughout the information processing system. The interests, attitudes, skills, and knowledge of the world existing in your long-term memory influence what you perceive and how you interpret your perceptions. **They** also affect whether you process information for short-term or long-term storage.

One way of understanding the nature of long-term memory is to consider the types of information stored there. Long-term memory can hold recollections of personal experiences as well as factual knowledge acquired through other means such as reading. It also holds skills such as knowing how to ride a bicycle. In its ability to learn and remember, the brain can distinguish between facts and skills. When you acquire factual knowledge by memorising dates, word definitions, formulas, and other information, you can consciously retrieve this fact memory from the data bank of your long-term memory. In contrast, skill memory usually involves motor activities that you learn by repetition without consciously remembering specific information. You perform learned motor-skilled, such as walking or riding a bicycle, without consciously recalling the individual steps required to do these tasks.

**1.** According to the passage, what must happen before information can be stored in memory?

A. The information must be pleasant. B. An object or idea must be perceived.

C. An older memory must be replaced. D. The information must be looked up.

**2.** The passage states that one difference between short-term memory and long-term memory is \_\_\_\_\_\_.

A. the type of information they store. B. their importance in learning

C. the amount of information they hold D. their location in the brain

**3.** The phrase **attend to** in paragraph 2 is closest in meaning to \_\_\_\_\_\_.

A. reject B**.** focus on C. talk about D. wait for

**4.** It can be inferred from paragraph 2 that something is **NOT** likely to be remembered if it is \_\_\_\_\_\_.

1. A. not considered important B. painful or embarrassing
2. C. related to previous experience D. sent to short-term memory

**5.** The passage states that information can be lost from short-term memory when a person \_\_\_\_\_\_.

A. does not know how to read B. repeats the information over and over

C. processes the information further D. is distracted for 20 seconds

**6.** Which sentence below best expresses the essential information in the highlighted sentence in paragraph 4? Incorrect answer choices change the meaning in important ways or leave out essential information.

 A. Usually information is rehearsed so it can be used later, but sometimes it is rehearsed so it can be used right away.

 B. There are several reasons for memorising information; the most common reason is to improve short-term memory.

 C. The belief that "practice makes perfect" causes people to repeat certain behaviour even when the behaviour is very complex.

 D. It is fairly simple to keep information in short-term memory, but it is difficult to send it to long-term memory.

**7.** Why does the author mention **"card sense"** in paragraph 4?

1. To point out that playing cards requires a high level of thinking
2. To give an example of knowledge already stored in long-term memory
3. To compare learning a card game to remembering a telephone number
4. To explain why some card games are easier to learn than others.

**8.** The word **they** in paragraph 5 refers to \_\_\_\_\_\_.

1. cognitive psychologists
2. memory structures
3. interests, attitudes, skills and knowledge of the world
4. what you perceive and how you interpret your perceptions

**9.** All of the following enhance the transfer of information from short-term to long-term

memory **EXCEPT** **\_\_\_\_\_\_.**

A. deciding that information is not meaningful or relevant

B. repeating information over and over to oneself

C. linking new information with data in long-term memory

D. performing a task frequently and repeatedly

**10.** What can be inferred from paragraph 6 about skill memory?

* 1. It is more important than fact memory in everyday life.
	2. It exists in long-term memory because of repeated practice.
	3. It requires conscious effort to be retrieved from memory.
	4. It contains only the skills that people can perform well.

**Your answers**:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **1.** | **2.** | **3.**  | **4.** | **5.** |
| **6.** | **7.** | **8.** | **9.** | **10.** |

**SECTION D. WRITING (60 POINTS)**

**Part 1. *Read the following extract and use your own words to summarise it. Your summary should be between 100 and 120 words. (15 points)***

 The demand for energy has increased steadily, not only because of the growing population but also because of the greater number of technological goods available and the increased affluence that has brought these goods within the reach of a larger proportion of the population. For example, despite the introduction of more fuel-efficient automobiles, the consumption of gasoline by vehicles in the world is rising drastically. As a result of the increase in the consumption of energy, concern has risen about the depletion of natural resources, both those used directly to produce energy and those damaged during the exploitation of the fuels, or as a result of contamination.

 The environmental consequences of energy production have led many nations in the world to impose stricter guidelines on the production and consumption of energy. Further, the search for new and more efficient sources of energy has accelerated. One of these is solar energy. The earth receives huge amounts of energy every day from the sun, but the problem has been harnessing this energy so that it is available at the appropriate time and in the appropriate form. For example, solar energy is received only during the daylight hours, but more heat and electricity for lighting are needed at night. Due to recent technological advances in energy storage cells, however, solar energy is expected to become a more viable and competitive source of energy in the 21st century.

 Another direction of research and experimentation is in the search for alternatives to gasoline. Possibilities include ethanol, an alcohol produced from grain and currently used in the US. Ethanol is less polluting than gasoline and is currently used by a half-million vehicles around the world. Automobiles could even be powered solely on electricity, which if ever practicable, would be far cheaper and environmentally acceptable, especially if derived from solar energy, rather than gasoline.

**Your answer:**

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**Part 2. *The table below gives ﬁgures for student applications and acceptances for UK university courses in the ﬁeld of tourism, transport and travel.***

***Summarise the information by selecting and reporting the main features, and make comparisons where relevant. You should write about 150 words. (15 points)***

STUDENT STATISTICS FOR UNIVERSITY COURSES

IN TOURISM, TRANSPORT AND TRAVEL

2020-2022

|  |  |
| --- | --- |
| **Applications** | **Acceptances** |
| **Year** | **Men** | **Women** | **Men** | **Women** | **% of total** |
| 2020 | 6,800 | 1,800 | 1,100 | 300 | 16.2 % |
| 2021 | 6,400 | 1,600 | 1,200 | 400 | 20 % |
| 2022 | 5,500 | 1,500 | 1,160 | 340 | 21.4% |

**Your answer:**

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**Part 3. *Write an essay of 350 words on the following topic:***

***Only formal examinations, written or practical, can give a clear picture of students’ true knowledge and ability at university level. Continuous assessment like course work and projects are poor measures of student ability.***

***How far do you agree with this view?***

***Use your own ideas, knowledge and experience and support your arguments with examples and with relevant evidence. (30 points)***

**Your answer:**

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 **THE END**

***GV ra đề: Nguyễn Ngọc Tú Duyên (0983483159) + Nguyễn Minh Hà (0973904707)***