



MINISTRY OF EDUCATION

BELKHIR S SCHOOL

2012 – 2013

LEVEL: 4th year ARTS 1+2

TEACHER: HAJJI A

FULL TERM TEST TWO

2 HOURS

NAME :.....
 SURNAME :.....

GRADE
/20

I- Reading comprehension. (15 marks)

1. Complete the table below with the appropriate information from the text. (3 marks)

The helicopter	WEIGHT	MAXIMUM SPEED	CHARACTERISTICS
GEN H-4

2. Correct these false statements with details from the text. (4 marks)

- a) Yanagisawa Gennai has thought of inventing his helicopter since an early age.
.....
- b) Y. Gennai is an engineer in a Japanese corporation.
.....
- c) It is hard to pilot the helicopter.
.....
- d) no security measures were executed in the helicopter.
.....

3. Answer the following question: (2 marks)

- What were the inconveniencies of the first example of the GEN – H4 ?
.....
.....

4. Cross out the adjective that cannot describe Yanagisawa Gennai. (1 mark)

Patient enthusiastic gifted egoistic

5. Find words in the text having nearly the same meaning as: (2 marks)

- a) interested in (paragraph 1):
- b) hand writing (paragraph 2):

6. What do the underlined words refer to? (2 marks)

- “there” in paragraph 1 refers to:.....
- “boy” in paragraph 4 refers to:.....

7. Give a personal justified answer to the following question.



Do you think that the GEN H-4 can be available for everybody? (1 mark)

I thinkbecause.....
.....

II- Language. (10 marks)

1. circle the correct option. (3 marks)

Biotechnology, or biotech, will have the biggest impact on our lives in the future. Just as the 19th century saw the **(social / medical / industrial)** revolution and the 20th century is known as the information age, the 21st century will **(be remembering / remember / be remembered)** as the biotech era, where working with the human **(gene / genetic / genetics)** code was commonplace , yet had the power to change society. It will slowly as laboratory advances **(lengthen / length / longer)** our lifespan and improve the quality of our lives. With a deeper understanding of the body, it is likely that **(founders / scientists / physicians)** will invent replacement organs, eliminating transplant rejection. The body’s own cells will be forced to repair brains’ **(devastation / drain / mind)** by diseases.

2. Fill in the blanks with six words from the box. (3 marks)

migrate – widespread – which – immigrate – because – whose – escape – departure

Investment in higher education is lost when a trained individual leaves and does not return. Also whatever social capital the individual has been a part of is reduced by his or her (1) The spokesman for the Royal Society of London used the expression ‘brain drain’ to describe the outflow of scientist and technologists to Canada and The United States in the early 1950’s. Its counterpart is “brain gain” in the areas to (2) talent migrant. Brain drain can occur either when individuals who study abroad and complete their education do not return to their home country , or when individuals educated in their home country (3) for higher wages or better opportunities . The second form is arguably worse (4)it drains more resources from the home country . This phenomenon is perhaps more problematic for developing nations, where it is (5)in these countries, higher education and professional certificates are often viewed as the surest path to (6)from a troubled economy or a difficult political situation.

3. Write the verbs / words between brackets in the correct tense / form. (4 marks)

Thirteen years ago, two writers at the *Wall Street Journal* first used the term “glass ceiling”. It **(to use)**.....to describe the invisible but largely impenetrable barrier to women’s **(advance)**.....in the workplace. Later on, the term **(quick)**..... became part of the cultural lexis. In recent years, glass ceiling **(to become)**..... a contentious topic. Some people think it doesn’t **(real)**.....matter, others believe that the idea no longer **(to have)**.....relevance in today’s workplace. At the same time, more and more **(to succeed)**.....women have been able to open windows through glass ceiling and make it to the top, but it is crucial that every woman **(to be)**.....more self-confident to realise this.

III- Writing. (15 marks)

1- Comment on the data on the table below about the growth of mobile phone users in Tunisia. (5 marks)

Figure : Tunisia - Mobile Subscribers and Penetration (2003-2010)

Year-end	Subscriber (millions)	Penetration (%)	Causes
2003	1.91	19.3%	High cost of devices / just one service provider...
2006	7.33	72.1%	Many service providers / cheaper technology...
2010	10.95	103.4%	A technology for all the generations / frequently used for a lot of purposes...

Source: Blycroft Publishing

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GEN H-4: The one-man helicopter

"It was the dream of flying like birds that inspired me to create the GEN H-4 and I hope someday it can be used just like a scooter." Said Yanagisawa Gennai, the Japanese engine designer at Zenoa and the inventor of the **GEN H 4**: the world smallest helicopter. Yanagisawa became hooked on making helicopters after turning 50. The 75-year-old man, who runs an electronics equipment company in Matsumoto, central Japan. There, he has created the 75kg one-man aircraft which sets the world record for the smallest helicopter.

Just like many other ideas, the GEN H-4 began in 1985 as a scribble on just another sheet of paper. Yanagisawa, better known as 'Gen' was thinking of ways to use one of his engines. Several years ago while employed at Zenoa, Gen had engineered several two-cycle engines. After 5 years of development on this new engine he had one of the best power to weight ratios available in the world.

Increasing the payload to 65kg by using two engines, the first prototype was completed in 1994 but did not produce enough lift to produce the desired result. This prototype hovered several centimeters above the ground for just a few seconds in addition to being unable to lift fat person. But after poring over books and other materials, including some 50 years old, he managed to solve the technical problems that had been hindering his flight.

The final prototype was finished in 1998. After several testing sessions, the Boy's Dream Helicopter was exhibited at the AERO-SPACE show in Japan. The one man helicopter was highly praised and attracted worldwide attention. The engine was light, powerful and reliable. The **GEN H-4 helicopter** was equipped with a chair, a footrest, a handle bar, two rotors turning in opposite directions to maintain stability and four engines that enable a 30-minute flight with a top speed of about 56 miles per hour. It could be easily controlled by the pilot's left thumb. He has also attached a parachute above the mast just in case. The helicopter was exhibited worldwide in several air fares and it was sold in America and Japan for about \$57,140.

Adapted from: www2.gen-corp/genh-4