



Concours Nationaux d'Entrée
aux Cycles de Formation d'Ingénieurs
Session 2014

Concours Toutes Options
Epreuve d'Anglais

Date : Lundi 02 Juin 2014 Heure : 14 H Durée : 2 H Nbre pages : 8

Barème : Part I (30 marks) Part II (30 marks) Part III (20 marks)

IMPORTANT

1. *L'épreuve d'Anglais comporte deux séries de feuilles:*

- *Les énoncés s'étalent sur 4 pages que les candidats sont appelés à garder*
- *Les feuilles réservées aux réponses (Answers sheet) s'étalent sur 4 pages, lesquelles doivent être rendues à la fin de l'épreuve aux professeurs surveillants*

2. *Il sera tenu compte de la présentation, (l'écriture au crayon n'étant pas permise)*

1- If Europe decides to turn away from nuclear and other sources of energy, as current trends tend to indicate, where will the continent look to power its future ? Some say: Tunisia.

2- As nuclear scientists continued to give dire reports over the state of the damaged Fukushima power plant this past year, European public opinion became ever more negative about nuclear energy. Politicians across the continent have been quick to perceive these shifting attitudes. Chancellor Angela Merkel's ruling coalition declared that Germany would close all nuclear reactors by 2022. Even in France, the world's most nuclear-dependent country, François Hollande has floated the idea of slashing France's nuclear consumption by more than a third by 2025. As Europe scrambles to find alternative sources of energy, it is searching in the desert south of the Mediterranean.

3- Tunisia is poised to play its part in Europe's shift in energy consumption. The North African country is endowed with a reliable source of solar power in its southern Saharan region with 20% stronger radiation than even the best locations in Europe. Because of its proximity to Italy, Tunisia is well placed to transfer such renewable energy directly to European markets, with much less energy loss along the way compared to its Maghreb neighbors.

4- TuNur, a joint-venture company between NurEnergie, a solar power plant developer based in England, and a collection of Tunisian investors, has seized upon the unmet export market of solar energy from Tunisia to Europe. It establishes the first solar export scheme between Tunisia and Europe.

5- Around 825,000 flat plate mirrors, known as heliostats, as well as a 2-gigawatt solar power plant will harness the energy of the Saharan sun to generate electricity. Such electricity will then be transferred by high-voltage direct-current submarine power cables to Italy from where it will be sold elsewhere in Europe. TuNur expects to conduct its first electricity exports, powering 700,000 European households, by 2016.

6- Europeans, nevertheless, are not the sole targeted consumers for TuNur, explained Kevin Sara, founder and CEO of NurEnergie. "The idea of exporting to Europe is to take advantage of the fact that Europeans are willing to pay a higher price for renewable electricity today.

And with this high price, we're able to invest in new technologies and in factories to build solar production equipment in Tunisia. Once we have this industrial capacity, we can build solar energy plants for Tunisian consumption," said Sara.

7- According to Sara, the potential gain for the Tunisian economy could be long-lasting. In the short term, TuNur will benefit most directly the local economy of the south. Estimates done by DESERTEC, a global sustainability non-profit, hold that some 20,000 new jobs will be created over the course of the construction and operation of the TuNur project. Perhaps more importantly, in the long run the initiative could foster new manufacturing industries in Tunisia specializing in clean energy technology. Sara stated that TuNur "creates a sustainable industry in Tunisia where Tunisian firms can build solar energy power plants for Tunisian consumption."

8- Hurdles still remain ahead before TuNur begins exporting solar energy to Europe. "The biggest challenge is to clarify the regulatory environment because it's not clear to what extent we can export the power, what is the export regime, and these are questions which TuNur has brought up with the government," said Sara. TuNur needs to come up with solutions that work for the company and the financiers, who will come and provide the capital.

9- Other experts in the field believe that renewable energy could be a major sector of the Tunisian economy, but highlight the necessity of adequately training the next generation of Tunisian professionals. "It's important to educate the young people, students, in the renewable energy sector... so that they are able to run plants, develop plants, and work in the field," said Dr. Thiemo Gropp, director of DESERTEC.

10- "There are already schools of engineering in Monastir and even in the capital School of Engineers of Tunis (ENIT), and they are becoming more adept at training students in the [renewable energy] field," commented Khaled Kaddour, the general director of energy in Tunisia's Ministry of Industry and Technology. "Tunisia has no problem in terms of skills. It just needs to recycle the workforce and catch up with the technology that has come out these last three years."

8 February 2012 Bernard Yaros

READING COMPREHENSION (30 MARKS)

I- Select the option which best summarizes the text (1 mark)

- 1- Nuclear Energy to replace fossil fuels accused of global warming
- 2- Solar power initiative could make Tunisia provide solar energy for Europe in coming years
- 3- Using solar power to boost European economies affected by recession

II- Say whether the following statements are true or false and justify from the text (4 marks)

- 1- A specialized Tunisian power company will be in charge of exporting solar energy to Europe.
- 2- TuNur will encounter difficulties in exporting solar power to Europe.

III- Complete the following sentences with reference to the passage (4.5 marks)

- 1- Nuclear energy given up, Europe will not find it easy to
- 2- France itself intends to
- 3- If the project proves successful, Tunisia can build

IV- Mention the 3 reasons that make Tunisia an appealing energy provider for Europe (3 marks)

V- To what extent will the project be beneficial for Tunisia (4 marks)

VI- Give the essential obstacle(s) TuNur faces before it could achieve its project (2 marks)

VII- Which equipment is needed to accomplish the process of exporting solar power to Europe? (3 marks)

VIII- What shall Tunisia do to make renewable energy become a major sector of its economy? (1.5 mark)

IX- Look for words in the passage meaning the following (4 marks)

- 1- terrible: (§2)
- 2- reduce: (§2)
- 3- only (§6)
- 4- disposed: (§6)

X- What do the underlined words in the text refer to (3 marks)

- 1- the continent: (§2)
- 2- such renewable energy: (§3)
- 3- the field: (§9)

LANGUAGE (30 MARKS)

I- Put the bracketed words in the right tense or form (10 marks)

Giving voice to a [1] (**grow**) conviction of most of the scientific community, the Intergovernmental Panel on Climate Change (IPCC) reported that the 20th century [2] (**see**) an increase in [3] (**globe**) average surface temperature of [4] (**approximate**) 0.6°C (1.1°F). The IPCC [5] (**go on**) to state that most of the warming observed over the second half of the 20th century [6] (**can/ attribute**) to human activities, and it predicted that by the end of the 21st century, the average surface temperature [7] (**increase**) by another 1.8 to 4.0°C (3.2 to 7.2°F), depending on a range of possible scenarios. Many climate scientists agree that [8] (**signify**) economic and ecological damage would result if global average temperatures [9] (**rise**) by more than 2°C (3.6°F) in such a short time. Such damage might include increased [10] (**extinguish**) of many plant and animal species, shifts in patterns of agriculture, and rising sea levels.

II- Complete the following paragraph with the appropriate words (ONE word in each blank). The first letter as well as a synonym of the word we look for are provided to help you (10 marks)

The Great Depression refers to the [1] (**u... =worldwide**) economic downturn that began in 1929 and lasted until 1939. It was the longest and most severe depression ever [2] (**e... =gone through**) by the industrialized Western world, sparking [3] (**c... =fundamental**) changes in economic institutions, macroeconomic policy, and economic theory. Although it [4] (**e... =originated**) in the United States, the Great Depression caused [5] (**d... =severe**) declines in output, severe [6] (**u... =joblessness**), and acute deflation in [7] (**a... =approximately**) every country of the world. Its social and cultural [8] (**e... =impacts**) were no less staggering, [9]

(e... =particularly) in the United States, where the Great Depression represented the [10]
(h... =toughest) adversity faced by Americans since the Civil War.

IV- Express differently starting as mentioned on the answer sheet (keep the same meaning)(10 marks)

- 1- You did not invite me that's why I did not come.
- 2- He did not get the job despite all his high qualifications.
- 3- We will be late unless we hurry.
- 4- Scientists are studying the new breed of virus.
- 5- She bought a plate set of six pieces.
- 6- "The invasion was planned here", says the policeman.
- 7- You breathe pure fresh air in no city of the world.
- 8- It is not necessary to cook meat because he's vegetarian.
- 9- They managed to extinguish the fire in time.
- 10- It's a pity, I did not meet this actress at the festival yesterday.

WRITING (20 MARKS)

I- Correct the mistakes (there is one mistake in each sentence) (5 marks)

- 1- So far, we are playing three challenging games.
- 2- You will not pay back the loan for the three first months.
- 3- A few attention is needed. I want to make an important announcement.
- 4- He turned out the job offer because the salary was low.
- 5- Einstein was an eminent German-born theoretical physician.

II- Essay (15 marks)

The overuse of modern technological consumer products such as television, computers and portable phones has been found to have many negative effects on people. Develop and use clear concrete examples in a 15-line essay.