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**I-Read the following passage, then answer the questions:**

Sameera Moussa (March 3, 1917-August 5, 1952) was an Egyptian nuclear scientist who held a doctorate in atomic radiation and worked to make the medical use of nuclear technology affordable to all. She organized the Atomic Energy for Peace Conference and sponsored a call for setting an international conference under the banner "Atoms for Peace". Sameera Moussa was born in Egypt in Gharbia Governorate in 1917. Her mother went through a fierce battle against cancer. After her mother's death, her father moved with his daughter Sameera to Cairo and invested his money in a small hotel in the El-Hussein region. At the insistence of her father, Sameera attended Kaser El-Shok Primary School, one of the oldest schools in Cairo. After she completed her primary education, she joined the Banat El-Ashraf School, which was built and managed by Nabawya Moussa, the famous political activist. Despite the fact that Sameera got high grades in her Secondary education, she insisted on joining the Faculty of Sciences at Cairo University. In 1939, Sameera Moussa obtained a B.Sc. in radiology with First Class Honours after researching the effects of X-ray radiation on various materials. Dr. Moustafa Mousharafa, the first dean of the faculty, believed in his student enough to help her become a remarkable lecturer at the faculty. Afterwards, she became the first Assistant Professor at the same faculty and the first woman to hold a university post, being the first to obtain a Ph.D. degree in atomic radiation.

Sameera Moussa believed in "Atoms for Peace" and said "I'll make nuclear treatment as available and as cheap as Aspirin". She worked hard for this purpose and throughout her intensive research, she came up with a historic equation that would help break the atoms of cheap metals such as copper, paving the way for a cheap nuclear bomb. She organized the Atomic Energy for Peace Conference, where many prominent scientists were invited. The conference made a number of recommendations for setting up a committee to protect against nuclear hazards, for which she strongly advocated. Sameera also volunteered to help treat cancer patients at various hospitals especially since her mother went through a fierce battle against this disease. Sameera Moussa received a scholarship from the Fullbright Atomic Program in order to be acquainted with the modern research facilities at California University. In recognition of her pioneering nuclear research, she was given permission to visit the secret US atomic facilities. The visit raised vehement debate in the United States Academic and Scientific circles since Sameera was the first "alien" to have access to such facilities. She turned down several offers that required her to live in the United States and to be granted the American citizenship saying "Egypt, my dear homeland, is waiting for me".



- 1-Who was Sameera Moussa?
- 2-What was the cause of her mother's death?
- 3-Why did she insist on joining the Faculty of Sciences at Cairo University?
- 4-What did Dr. Moustafa Mousharafa do for her?
- 5-Explain Sameera Moussa's contributions to "Atoms for peace" conference.
- 6-What were the most important recommendations of the conference?
- 7-Why did Sameera Moussa volunteer to help treat cancer patients at various hospitals?
- 8-Why did Sameera Moussa receive a scholarship from the Fullbright Atomic Program?
- 9-Why did she turn down several offers that required her to live in the United States?
- 10-Give synonyms of the underlined words.

## II- A)-Rewrite the following sentences correcting the mistakes:

- 1-He works in a shop selling furnitures.
- 2-Max has passed his driving test, so he often give me a lift to school.
- 3- I can't work in so much stressful conditions.
- 4- Several houses hit by lightning last night.
- 5- In the future many more disasters cause by global warming.
- 6- Could you please send me some informations about the job.

## B)-Give the opposite form of the following words:

- 1-major 2-abundant 3-sweet 4-depressed 5-common

## III. A) Translate the following passage into Arabic:

The word laser was coined as an acronym for Light Amplification by the Stimulated Emission of Radiation. Ordinary light, from the Sun or a light bulb, is emitted spontaneously, when atoms or molecules get rid of excess energy by themselves, without any outside intervention. Stimulated emission is different because it occurs when an atom or molecule holding onto excess energy has been stimulated to emit it as light.

## B) Translate the following passages into English:

1- تقنية الاستنساخ ما زالت تحت التطوير لدرجة انه لايمكن محاولة إجرائه علي البشر لخطورته. فكل التجارب علي الحيوانات قد فشلت أو أسفرت عن أجنة مشوهة. حتي استنساخ الأعضاء والأنسجة من الخلايا الجذعية بالأجنة فيه خطورة.

2- يعتبر اكتشاف الحمض النووي DNA ثورة علمية في كل مجالات الطب والزراعة والتمريض ومجالات الهندسة الوراثية. فكلنا نعلم اننا نستطيع ان نميز كل شخص عن الشخص الاخر عن طريق الملامح واللون والنوع.

Best Wishes

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