LANGUAGE PROFICIENCY TEST RATIONALE
ENGLISH FOR MEDICAL SPECIALTIES

The goal of the language proficiency test in English at Varna Medical University is to identify the level of English language performance of the applicants and to make sure that they will be able to cope with studying medicine or dental medicine in English. Candidates are expected to sit a written test that lasts 90 minutes and has the following components:

1. Listening comprehension – this task involves listening to an authentic text of about 600 words that concerns contemporary topics of interest from the general medical field. Topics may cover information about the common cold, flu, dehydration, genetically modified organisms, etc. Applicants are to respond appropriately in a few words according to the register and style of the text.
2. Reading comprehension – this task aims at testing candidates' ability to understand and interpret an authentic text of about 800 words concerning general health issues.
3. Component 3 is in essence a gap filling task. It focuses on a text related to common health issues of about 300 words with 15 to 20 gaps. Applicants have to provide only one suitable word that renders meaning to the whole text. The missing words have to be inferred from context. This task aims at checking prospective students' prediction skills, knowledge of grammar, vocabulary and collocations.
4. Writing task – it offers a choice of two topics again related to general health issues. Candidates choose one and discuss it in about 200 words sharing their life experience and personal views on the subject.

Students who have successfully passed the written test (with score of 50% and above) are allowed to sit the oral exam.

The oral exam consists of two parts and lasts about 10 minutes. The first part is a short interview with the candidates that relates to their experiences, education, travelling, and various topics of popular concern. The second part of the oral exam is geared at checking the extent to which applicants can describe in ***basic terms*** the structure and function of one of the systems and/or organs of the human body. Thus prospective students provide evidence of having learned and acquired some necessary preliminary knowledge, skills and attitudes which will empower them to be successfully integrated in the academic environment of Varna Medical University as 1st year students of medicine and dental medicine.

Suggested topics for the oral exam

1. Parts of the human body
2. The cell: shape and structure
3. The integumentary system
4. The skeletal system
5. Tissues: epithelial, connective, muscular and nervous
6. The human muscular system
7. The digestive system
8. Oral cavity. Teeth: type and structure
9. Oral Hygiene and Function of the Teeth.
10. Cardiovascular system: structure and functions
11. The inner environment of the organism: blood and lymph
12. Respiratory system: structure and functions
13. Urinary system: structure and functions
14. Nervous system: structure and functions
15. Sensory organs: types, structure and functions
16. Glands: types, location, structure and functions
17. The reproductive system
18. Drugs and Drug Forms. Drug Abuse

Suggested bibliography:

1. Kelly, K. (2007), *Science*, Macmillan
2. Meier, J., E. Hanson (2006), *Anatomy and Physiology for English Language Learners*, Pearson Longman,
3. O'Brien, T., J. Jameson, D. Kirwan, (1991), *Nucleus, English for Science and Technology, Medicine*, Longman
4. Materials from the web

ENGLISH FOR MEDICAL SPECIALTIES

LANGUAGE PROFICIENCY TEST

I. Listening
Listen to the talk and answer the following questions.

1. How are tattoos made?

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2. What makes tattoos everlasting?

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3. What may happen if the needle goes too deep into the skin?

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4. Why is a new tattoo like a wound?

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5. List at least three common signs of infection.

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6. In what cases should you consult your doctor?

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7. What should be done if you feel pain?

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8. Why shouldn't we use petroleum jelly as a moisturizer?

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9. When is it safe to swim in pools?

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10. Why is it best to keep a tattoo away from direct sunlight?

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II. Reading
Read the text and answer the questions below.

1. Which groups have campaigned against genetically modified foods?

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2. What has some research led to?

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3. What does GMO stand for?

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4. Why were the plants changed in the lab?

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5. What are the characteristics of traditional plant breeding methods?

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6. What will be the result if a gene responsible for drought tolerance is isolated and inserted into a different plant?

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7. Genes from which organisms can be transferred and used?

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8. How does Bacillus thuringiensis function?

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9. In what way does it affect the corn to which it is transferred?

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10. Approximately how many people live in the world today?

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_____

11. What is going to be the main challenge in the years to come?

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_____

12. Why don’t consumers wish to eat food that has been treated with pesticides?

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13. What types of tolerance should GM crops possess?

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14. How does an anti-freeze gene help?

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15. Where can GM foods with salinity tolerance be grown?

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GM Foods

Genetically-modified foods (GM foods) have made a big splash in the news lately. European environmental organizations and public interest groups have been actively protesting against GM foods for months, and recent controversial studies about the effects of genetically-modified corn pollen on monarch butterfly caterpillars have brought the issue of genetic engineering to the forefront of the public consciousness in the U.S.

The term GM foods or GMOs (genetically-modified organisms) is most commonly used to refer to crop plants created for human or animal consumption using the latest molecular biology techniques. These plants have been modified in the laboratory to enhance desired traits such as increased resistance to herbicides or improved nutritional content. The enhancement of desired traits has traditionally been undertaken through breeding, but conventional plant breeding methods can be very time consuming and are often not very accurate. Genetic engineering, on the other hand, can create plants with the exact desired trait very rapidly and with great accuracy. For example, plant geneticists can isolate a gene responsible for drought tolerance and insert that gene into a different plant. The new genetically-modified plant will gain drought tolerance as well. Not only can genes be transferred from one plant to another, but genes from non-plant organisms also can be used. The best known example of this is the use of B.t. genes in corn and other crops. B.t., or Bacillus thuringiensis, is a naturally occurring bacterium that produces crystal proteins that are lethal to insect larvae. B.t. crystal protein genes have been transferred into corn, enabling the corn to produce its own pesticides against insects such as the European corn borer.

The world population has topped 6 billion people and is predicted to double in the next 50 years. Ensuring an adequate food supply for this booming population is going to be a major challenge in the years to come. GM foods promise to meet this need in a number of ways:

Pest resistance. Crop losses from insect pests can be staggering, resulting in devastating financial loss for farmers and starvation in developing countries. Farmers typically use many tons of chemical pesticides annually. Consumers do not wish to eat food that has been treated with pesticides because of potential health hazards, and run-off of agricultural wastes from excessive use of pesticides and fertilizers can poison the water supply and cause harm to the environment. Growing GM foods such as B.t. corn can help eliminate the application of chemical pesticides and reduce the cost of bringing a crop to market.

Herbicide tolerance. For some crops, it is not cost-effective to remove weeds by physical means such as tilling, so farmers will often spray large quantities of different herbicides (weed-killers) to destroy weeds, a time-consuming and expensive process, that requires care so that the herbicide doesn't harm the crop plant or the environment. Crop plants genetically-engineered to be resistant to one very powerful herbicide could help prevent environmental damage by reducing the amount of herbicides needed.

Disease resistance. There are many viruses, fungi and bacteria that cause plant diseases. Plant biologists are working to create plants with genetically-engineered resistance to these diseases.

Cold tolerance. Unexpected frost can destroy sensitive seedlings. An antifreeze gene from cold water fish has been introduced into plants such as tobacco and potato. With this antifreeze gene, these plants are able to tolerate cold temperatures that normally would kill unmodified seedlings.

Drought tolerance/salinity tolerance. As the world population grows and more land is utilized for housing instead of food production, farmers will need to grow crops in locations previously unsuited for plant cultivation. Creating plants that can withstand long periods of drought or high salt content in soil and groundwater will help people to grow crops in formerly inhospitable places.

III. Use of English

Read the text about the cell and fill in the gaps with one word only that best fits the context.

Nutrition

Malnutrition is (1) _____ in third world countries where impoverished peoples rely on a single crop such as rice for the main staple of their diet. However, rice does not (2) _____ adequate amounts of all necessary nutrients to prevent malnutrition. If rice could be genetically (3) _____ to contain additional vitamins and minerals, nutrient deficiencies could be alleviated. For example, blindness due to vitamin A (4) _____ is a common problem in third world countries. Researchers at the Swiss Federal Institute of Technology Institute for Plant Sciences have created a strain of "golden" rice (5) _____ an unusually high content of beta-carotene (vitamin A). (6) _____ this rice was funded by the Rockefeller Foundation, a non-profit organization, the Institute hopes to offer the golden rice seed free to any third world country that requests it. Plans were underway to (7) _____ a golden rice that also has increased iron content. (8) _____, the grant that funded the creation of these two rice strains was not renewed, perhaps because of the vigorous anti-GM food (9) _____ in Europe, and so this nutritionally-enhanced rice may not come to market at all.

Pharmaceuticals, medicines and vaccines often are costly to produce and sometimes (10) _____ special storage conditions not readily available in third world countries. (11) _____ are working to develop edible vaccines in tomatoes and potatoes. These vaccines will be much (12) _____ to ship, store and administer than traditional injectable vaccines.

IV. Writing

Choose one topic and write your opinion in about 180 words.

1. What bad habits should people give up to ensure a healthy lifestyle
2. What is the role of physical exercise in maintaining one's health

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V. Text for Listening

So What Exactly Is a Tattoo?

A tattoo is a puncture wound, made deep in your skin, that's filled with ink. It's made by penetrating your skin with a needle and injecting ink into the area, usually creating some sort of design. What makes tattoos so long-lasting is they're so deep - the ink isn't injected into the **epidermis,** the top layer of skin that you continue to produce and shed throughout your lifetime. Instead, the ink is injected into the **dermis**, which is the second, deeper layer of skin. Dermis cells are very stable, so the tattoo is practically permanent.

Most tattoo artists know how deep to drive the needle into your skin, but not going deep enough will produce a ragged tattoo, and going too deep can cause bleeding and intense pain. Getting a tattoo can take about 15 minutes to several hours, depending on the size and design chosen.

If you're thinking about getting a tattoo, there is one very important thing you have to keep in mind - getting it done safely. Although it might look a whole lot cooler than a big scab, a new tattoo is *also* a wound. Like any other slice, scrape, puncture, cut, or penetration to your skin, a tattoo is at risk for infections and disease.

First, make sure you're up to date with your immunizations (especially hepatitis and tetanus shots) and plan where you'll get medical care if your tattoo becomes infected (signs of infection include excessive redness or tenderness around the tattoo, pus, or changes in your skin colour around the tattoo).

If you have a medical problem such as heart disease, allergies, diabetes, skin disorders, a condition that affects your immune system, or a bleeding disorder - ask your doctor if there are any special concerns you should have or precautions you should take beforehand.

The last step in getting a tattoo is very important - taking care of the tattoo until it fully heals. Follow all of the instructions the studio gives you for caring for your tattoo to make sure it heals properly. Also, keep in mind that it's very important to call your doctor right away if you have bleeding, increased pain, or any signs of infection. To make sure your tattoo heals properly:

- Keep a bandage on the area for up to 24 hours.
- Avoid touching the tattooed area and don't pick at any scabs that may form.
- Wash the tattoo with warm soap and water. Use a soft towel to dry the tattoo - just pat it dry and be sure not to rub it.
- Apply antibiotic ointment or a fragrance-free moisturizing lotion to the tattoo 2 to 3 times a day for a week. Don't use petroleum jelly - it may cause the tattoo to fade.
- Showers are fine but try not to soak the tattoo in water until it fully heals. Stay away from pools, hot tubs, or long, hot baths.
- Keep your tattoo out of the sun until it's fully healed.

Even after it's fully healed, a tattoo is more susceptible to the sun's rays, so it's a good idea to always keep it protected from direct sunlight.