**Online test VLA Clinical genetics - sample**

**1. What is a genome?**

a) all genetic material of an organism (DNA)

b) all genetic material of nucleus

c) all coding sequences of DNA

d) all non-coding sequences of DNA

**2. What is the lifelong risk of developing breast cancer in a woman who is the carrier of the *BRCA2*** **gene mutation?**

a) up to 44%

b) up to 66%

c) up to 88%

d) up to 99%

**3. “Café au lait spots" are a typical symptom of which of these diseases?**

1. Vitiligo
2. Nefroblastoma
3. Neurofibromatosis type I
4. Neuroblastoma

**4. What does predictive testing mean?**

a) Examination of so far healthy members of the family whose relatives are carriers of known pathological variant of the gene

b) Embryo examination if it carries a pathological variant of a gene

c) Screening of a healthy person for not having any of the frequent pathological variants of the gene that occur in the population

d) Examining partners who want to have a baby if they are not carriers of some of the autosomal recessive diseases

**5. Evolution of cancer cells´ population is molecularly supported by:**

a) passenger mutations

b) driver mutations

c) both a) and b)

d) driver mutations more than passenger mutations

**6. Cancer process (pre-malignant lesions) begins with the presence of:**

a) DNA double strand breaks

b) activated oncogenes or lost tumor-suppressor genes

c) unscheduled replication

**7.** **The pattern of inheritance for Cystic fibrosis:**

a) Autosomal recessive

b) Autosomal dominant

 c) X- recessive

1. **Gene mutations which are inherited from a parent and are present throughout a person’s life in virtually every cell in the body. They are present in germ cells. These mutations are called:**
2. germline
3. somatic
4. acquired

1. **The determination of the pattern of genes expressed, at the level of transcription, under specific circumstances or in a specific cell to give a global picture of cellular function. This analysis is performed on the level:**
2. DNA
3. RNA
4. protein