

Xalqaro biologiya olimpiadasi nazorat savollari javobi (qiyinlik darajasi A va B tipda).

1. E. coli bakteriyalaridan ajratilgan DNK molekulasining bitta zanjirida quyidagi nukleotidlar ketma-ket mavjud: 5'– GTAGCCTACCCATAGG - 3. Shu zanjirdagi irsiy axborot i-RNK molekulasiga transkripsiyalandi, DNK ning ikkinchi zanjiri matritsa deb faraz qiling.

1.1. Sintezlangan i-RNKdagi nukleotidlar ketma-ketligi aniqlang?

A) 3'– CAUCGGAUGGGUAUCC – 5'

B) 5'– GUAGCCUACCCAUAGG – 3'

C) 5'– GGAUACCCAUCCGAUG – 3'

D) 5'– CACAGAUACCCAGAUG – 3'

1.2. Agar translyatsiya jarayoni i-RNK ning 5' uchidan boshlansa, qayday tarkibli peptid sintezlanishini aniqlang? (Bu jarayonda start kodon talab qilinmaydi deb faraz qiling). Bu vazifani bajarishda siz genetik kod jadvalidan foydalanishingiz mumkin!

A) - Gly - Tyr - Pro - Ala – Asp

B) - His - Arg - Met - Gly – Ile

C) - Val - Ala - Tyr – Pro

D) - His - Arg - Tyr - Pro – Ala

1.3. *t-RNK-Ala* ribosomadan ajralayotgan vaqtda, qanday aminokislotali t-RNK ribosoma bilan bog'lanishini aniqlang?

A) t-RNK-Tyr

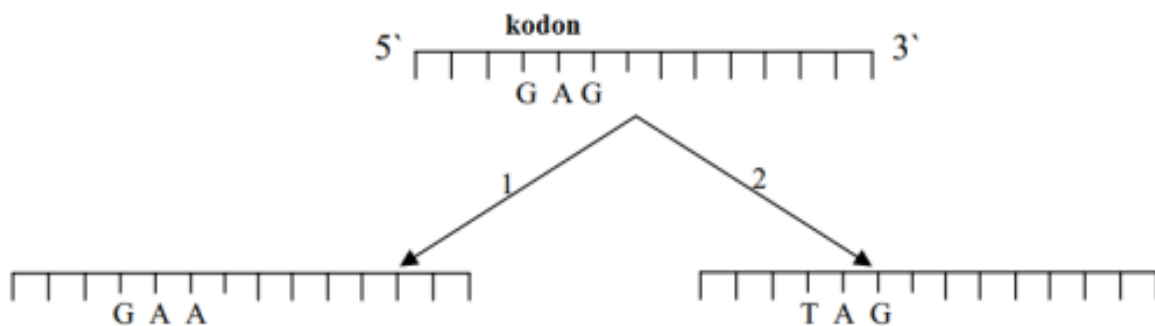
B) t-RNK -Pro

C) t-RNK -Val

D) t-RNK -Arg

E) t-RNK -His

2. DNKning ma'lum segmentida ikkita bir biriga bog'liq bo'lmagan mutatsiya ro'y berdi. Soding bo'lgan mutatsiya turlarini aniqlang. (Har bir mutatsiya uchun 3 ta turni belgilang).



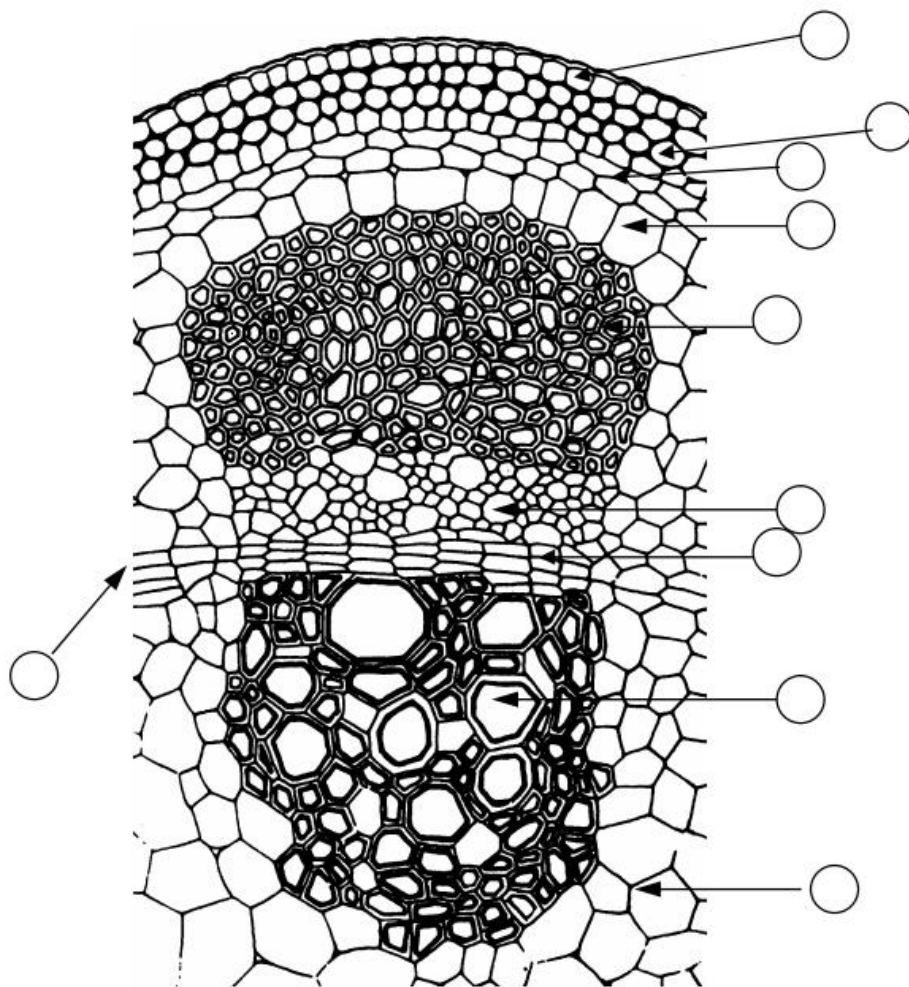
Javobingiz:

1:
2:

- A) Nuqtali mutatsiya
- B) Tranzitsiya
- C) Indamas mutatsiya
- D) Transversiya
- E) Neytral mutatsiya
- F) Missens mutatsiya
- G) Nonsens mutatsiya

Javob: **1: A, B, C**
 2: A, D, G

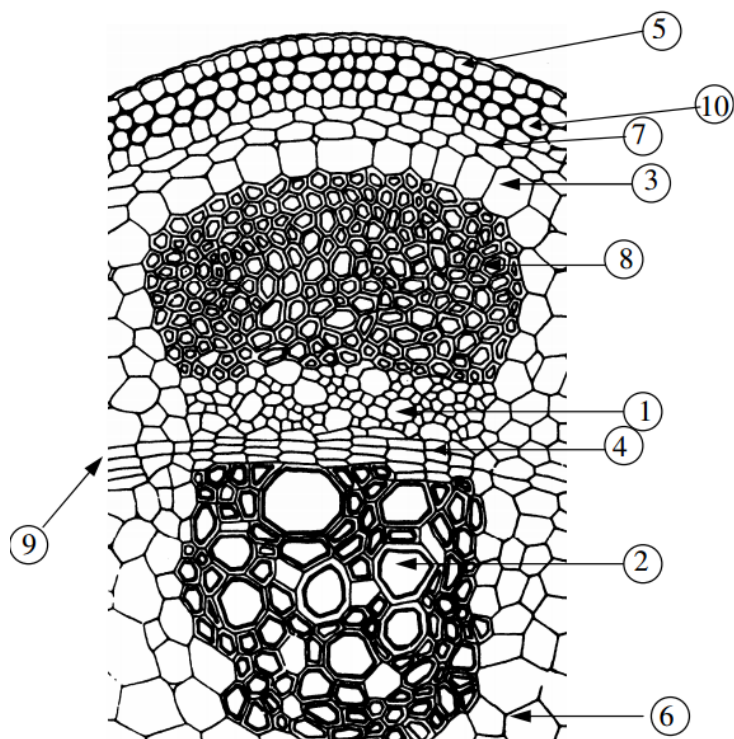
3. Quyidagi rasmda o'simlik poyasining tuzilishi keltirilgan, doirachalar ichiga mos keluvchi o'simlik qismlari raqamini to'g'ri ko'rsating.



Poyaning ichki tuzilishi:

1. Floema
2. Ksilema
3. Endoderma
4. Kambiy xalqasi
5. Epidermis
6. Parenxima
7. Po'st parenximasi
8. Sklerenxima
9. Oraliq kambiy
10. Kollenxima

Javob:



4. Quyidagi proteinlarni ularning funksiyasini bilan juftlang:

- | | |
|----------------|-----------------------------------------------------------|
| 1) Mioglobin | A) Qon ivishi |
| 2) Protrombin | B) Suv almashinuvini boshqarish |
| 3) Ferritin | C) Tayoqchasimon hujayralarni yorug'lik sezuvchi pigmenti |
| 4) Vazopressin | D) Skelet muskullarida kislorod saqlaydi |
| 5) Kollagen | E) Suyak iligi va taloqda temir saqlaydi |
| 6) Rodopsin | F) Biriktiruvchi to'qimaning asosiy tolasimon oqsili |

Javob:

1.	2.	3.	4.	5.	6.
D	A	E	B	F	C

@olimpdep



Fan olimpiadalari bo'yicha
iqtidorli o'quvchilar bilan ishlash
DEPARTAMENTI